



2022 ANNUAL REPORT

FORMER KELLY-MOORE MANUFACTURING FACILITY
5400-5800 AIRPORT WAY SOUTH
SEATTLE, WASHINGTON
FACILITY/SITE #2163
VCP #NW2305
PROJECT # PS23206100

Prepared for:

KELLY-MOORE PAINT COMPANY, INC.

301 W Hurst Boulevard, Hurst, Texas 76053

MAY 11, 2023



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May 11, 2023

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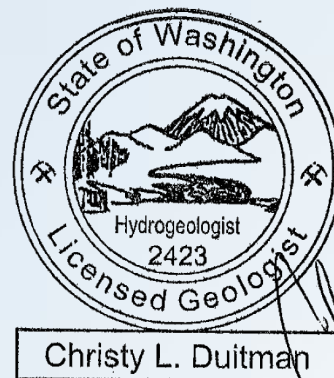
The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

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LIST OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
CATOX	catalytic oxidizer
Ecology	Washington Department of Ecology
EPA	Environmental Protection Agency
FID	flame ionization detector
Kelly-Moore	Kelly-Moore Paint Company, Inc.
MRE	mass removal efficiency
MTCA	Model Toxics Control Act
O&M	operation and maintenance
PID	photoionization detector
PSCAA	Puget Sound Clean Air Agency
PVC	polyvinyl chloride
Site	former Kelly-Moore manufacturing facility located at 5400-5800 Airport Way South, Seattle, Washington
Steadfast	Steadfast Drilling
SVE	soil vapor extraction
TPH-D	total petroleum hydrocarbons in the diesel range
TPH-G	total petroleum hydrocarbons in the gasoline range
TPH-O	total petroleum hydrocarbons in the motor oil range
VOCs	volatile organic compounds
WSP	WSP USA Environment & Infrastructure Inc.

1 INTRODUCTION

1.1 PURPOSE

WSP USA Environment & Infrastructure Inc. (WSP), prepared this report on behalf of Kelly-Moore Paint Company, Inc. (Kelly-Moore), for the former Kelly-Moore manufacturing facility located at 5400-5800 Airport Way South, Seattle, Washington (the Site) (Figure 1). Kelly-Moore's objective is to conduct remedial action at the Site in accordance with requirements established by the Washington State Department of Ecology (Ecology) under the state Model Toxics Control Act (MTCA) via the Washington State Voluntary Cleanup Program and attain No Further Action status for the Site.

This report presents the results of additional site characterization, routine groundwater monitoring, and Site remedial action activities as summarized below.

- Additional soil and groundwater site characterization activities (August 2022);
- Wet season groundwater monitoring (March 2022);
- Dry season groundwater monitoring (August 2022);
- Soil vapor extraction (SVE) system operation and maintenance (O&M) (January 2022 through December 2022); and
- Air sparge system O&M (January 2022 through December 2022).

Groundwater performance monitoring results for events conducted in August 2020, March 2021, and September 2021 along with air sparge/SVE O&M activities conducted from January 2021 through December 2021 were discussed in the 2020-2021 Annual Report (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2022).

1.2 BACKGROUND

The 2.7-acre Site is located on the east side of Airport Way South at the intersection of South Lucile Street and Airport Way South in the Georgetown neighborhood of Seattle, Washington (Figure 1). The Site is bordered on the north by BNSF Railway Company tracks and the Olympic Foundry, on the west by Airport Way South and the Airport Way South overpass, on the east by BNSF Railway Company tracks and a steep hillside, and on the south by an Interstate 5 connector ramp overpass (Figure 1).

The Site has been used for a variety of industrial purposes since the early 1900s, and Kelly-Moore acquired the Site in 1994. Between approximately 1994 and 2008, Kelly-Moore used portions of the Site as a paint manufacturing plant for blending paints and pigments. By 2010, Kelly-Moore vacated the property. Kelly-Moore sold the southern portion of the Site to JST Georgetown, LLC, in 2011, and the northern portion of the Site to NCD GeorgeTown, LLC, in 2014. The new owners of the northern parcel demolished the former buildings and warehouses in 2015, during which time Kelly-Moore directed WSP to perform additional interim remedial actions and address known areas of contamination that were not accessible prior to the demolition. Construction of the current building on the northern parcel was completed in 2016. Elysian Brewing Company, primary tenant on the northern parcel, uses the property for brewing beer. The southern parcel warehouse has been leased by Elysian Brewing Company since 2011, where bottling operations are conducted.

2 ADDITIONAL SITE CHARACTERIZATION

2.1 SITE INVESTIGATION ACTIVITIES

Between August 11 and 12, 2022, WSP conducted additional site characterization activities at the Site. The purpose of this investigation was to characterize potential volatile organic compound (VOC) concentrations in groundwater at the northwestern portion of the Site and to characterize potential metal concentrations in shallow soil at the southeastern portion of the Site, in response to Ecology's opinion letter dated November 22, 2019.

On August 11, 2022, under WSP oversight, Steadfast Drilling (Steadfast) installed four soil borings at the Site to provide additional site characterization. Soil borings KM-DP-01 and KM-DP-02 were completed as a temporary monitoring well and temporary soil boring, respectively. Soil borings KMW-11 and KMW-12 were completed as permanent groundwater monitoring wells. On August 12, 2022, Steadfast returned to the Site to develop monitoring wells KMW-11 and KMW-12, under WSP oversight.

As part of these activities, WSP staff:

- Developed a site-specific Health and Safety Plan to guide field safety protocols in accordance with rules established by the Occupational Safety and Health Administration;
- Coordinated public and private utility locating to identify underground infrastructure and utilities at each drilling location;
- Obtained a right-of-way permit (SUUTIL0009500) from the City of Seattle to install monitoring well KMW-11 on Findlay Street South just north of the Georgetown Playfield and Park;
- Provided traffic control for Findlay Street South during drilling operations at KMW-11;
- Coordinated with Steadfast to install four soil borings, completed one boring (KM-DP-01) as a temporary monitoring well, installed one boring (KM-DP-02) to collect soil samples, completed two borings as permanent monitoring wells KMW-11 and KMW-12, and developed groundwater at monitoring wells KMW-11 and KMW-12; and
- Collected a soil sample at temporary boring KM-DP-02 and groundwater samples at temporary boring KM-DP-01 and groundwater monitoring wells KMW-11 and KMW-12, and submitted the samples for laboratory chemical analysis.

The temporary boring and new monitoring well locations are presented on Figure 2. Boring logs and monitoring well construction details are provided as Appendix A.

2.2 BORING INSTALLATION AND SAMPLING

On August 11, 2022, under WSP oversight, Steadfast installed two direct push temporary borings, KM-DP-01 and KM-DP-02, as described below:

- KM-DP-01 was installed on the northwestern corner of the Site in the gravel access road between the northern building and Airport Way South; and
- KM-DP-02 was installed on the southeastern portion of the Site in the parking lot south of the southern building.

Temporary borings KM-DP-01 and KM-DP-02 were advanced with a Geoprobe 7720 DT to terminal depths of 20 feet and 5 feet below ground surface (bgs), respectively. During drilling activities, under oversight by a licensed

geologist, WSP personnel logged continuous soil cores in 5-foot segments. Soils were examined for discoloration, sheen, and odor, and were field screened for the presence of VOCs with a photoionization detector (PID). Boring logs are provided in Appendix A.

During drilling activities at KM-DP-01, subsurface soil conditions observed primarily consisted of fill material from ground surface to 3 feet bgs consisting of dry, loose silty sand and sandy silt with some gravels. Sand and silty sand with some gravels were observed from 3 feet bgs to the boring terminus at 20 feet bgs. In general, soils were poorly graded with medium density. Groundwater was first encountered at approximately 11 feet bgs in boring KM-DP-01. No evidence of petroleum contamination, such as elevated PID readings, petroleum odors, or visible petroleum staining on the soil was observed in the boring.

Boring KM-DP-01 was completed with a temporary ¾-inch polyvinyl chloride (PVC) well casing equipped with a 10-foot, 0.010-slotted screen to collect a grab groundwater sample. Prior to sampling, the depth to first groundwater was measured with a Solinst Model 122 electronic water level meter. The depth to water was recorded at 11 feet below the top of the casing. A groundwater sample was collected using a peristaltic pump and disposable polyethylene tubing. The groundwater sample was transferred directly from the tubing into laboratory-supplied containers and placed on ice prior to delivery under chain-of-custody protocol to Friedman & Bruya Inc. laboratory of Seattle, Washington, for chemical analysis of VOCs by U.S. Environmental Protection Agency (EPA) Method 8260D. Laboratory analytical results are discussed in Section 2.4 and provided in Appendix B.

During drilling activities at KM-DP-02, subsurface soil conditions observed primarily consisted of silty sand with gravel from ground surface to 0.5 foot bgs, sandy silt with gravel from 0.5 foot bgs to 2 feet bgs, and sand from 2 feet bgs to the boring terminus at 5 feet bgs. In general, soils were dry, poorly graded, and loose. Groundwater was not encountered. Evidence of petroleum contamination including a diesel odor was detected at 1 foot bgs. No other evidence of petroleum contamination, such as elevated PID readings or visible petroleum staining on the soil, was observed in the soil boring.

Based on the strongest evidence of contamination, two soil samples were collected from temporary boring KM-DP-02 at depths of 1 to 2 feet bgs and 4 to 5 feet bgs. Soil samples were transferred directly into laboratory-supplied containers and placed on ice prior to delivery under chain-of-custody protocol to Friedman & Bruya Inc. laboratory for chemical analysis for total metals (arsenic, chromium, copper, lead, mercury, nickel, and zinc) by EPA Method 6020B. Laboratory analytical results are discussed in Section 2.4 and provided in Appendix B.

2.3 MONITORING WELL INSTALLATION AND DEVELOPMENT

On August 11, 2022, under WSP oversight, Steadfast installed monitoring wells KMW-11 and KMW-12 as described below:

- KMW-11 was installed in the right-of-way immediately south of Findlay Street and north of the Georgetown Playfield and Park in a gravel parking lot; and
- KMW-12 was installed in the southeastern portion of the Site in the parking lot south of the southern building and west of KM-DP-02.

Borings KMW-11 and KMW-12 were advanced with a Geoprobe 7720 DT to a terminal depth of 15 feet bgs. During drilling activities, WSP personnel logged a continuous soil core in a 5-foot segment. Soils were examined for discoloration, sheen, and odor, and were field screened for the presence of VOCs with a PID.

During drilling activities at KMW-11, subsurface soil conditions observed primarily consisted of gravelly sand indicative of fill material from ground surface to 2 feet, silty sand from 2 to 2.5 feet, and sand from 2.5 feet to the boring terminus at 15 feet bgs. A silty sand lens was observed from 11 to 11.5 feet. In general, soils were poorly graded and loose to medium dense. Groundwater was encountered at 11.5 feet bgs. Elevated PID readings were observed from 7 to 8 feet with a maximum value of 1,600 parts per million. No other evidence of petroleum contamination, such as a petroleum odor or visible petroleum staining on the soil, was observed in the soil boring.

During drilling activities at KMW-12, subsurface soil conditions observed primarily consisted of gravelly, silty sand from ground surface to 0.5 foot bgs, silt with some gravel from 0.5 to 1.0 foot bgs, sandy silt from 1.0 foot to 1.8 feet bgs, silt with some clay from 1.8 feet to 3 feet bgs, sand from 3 feet to 5.5 feet bgs, silt from 5.5 feet to 6 feet bgs, sand from 6 feet to 14.8 feet bgs, and silt with a trace of fine sand from 14.8 feet bgs to the boring terminus at 15 feet bgs. In general, soils were poorly graded and loose to very dense depending on depth. Groundwater was encountered at 6.19 feet bgs. Slightly elevated PID readings were observed from 6 to 7 feet bgs with a maximum value of 6.1 parts per million. No other evidence of petroleum contamination, such as a petroleum odor or visible petroleum staining on the soil, was observed in the soil boring.

Monitoring wells KMW-11 and KMW-12 were constructed with a 2-inch schedule 40 PVC riser pipe and 0.010 slotted screen from 5 to 15 feet. A 10/20 sand filter pack was installed from the boring terminus to 4 feet, hydrated bentonite pellets from 4 feet to 1 foot, and a flush-mount, traffic-rated monument with flush concrete apron from 1 foot to ground surface. The tops of the wells were sealed with a J-plug style locking well cap. Monitoring well construction logs are provided in Appendix A.

On August 12, under WSP oversight, Steadfast returned to the Site to develop monitoring wells KMW-11 and KMW-12. The monitoring wells were developed to improve well yield by removing fine material, including formation material from the well casing, filter pack, and boring annulus interface.

Prior to purging, the static water level and total well depths were measured. During purging, water was removed from the well using an electric submersible pump. The purged water was collected and containerized on site. The purged water was later disposed of offsite as investigative derived waste by Ingenium.

Groundwater at monitoring wells KMW-11 and KMW-12 were first sampled during the dry season sampling event in August 2022. Those activities and results are described in Section 3.0.

2.4 ADDITIONAL SITE CHARACTERIZATION ANALYTICAL RESULTS AND SUMMARY

2.4.1 SOIL ANALYTICAL RESULTS

On August 11, 2022, WSP staff collected two soil samples from soil boring KM-DP-02 at depths of 1 to 2 feet bgs and 4 to 5 feet bgs. The soil samples were analyzed for total metals (arsenic, chromium, copper, lead, mercury, nickel, and zinc) by EPA Method 6020B. Soil analytical results are depicted on Figure 3 and summarized in Table 1.

Laboratory analytical results were compared to Ecology MTCA Method A Cleanup Levels and Method B Noncancer Cleanup Levels. Arsenic, barium, chromium, and lead were detected in both samples at concentrations below the MTCA Method A Cleanup Levels. Cadmium was detected at 1 to 2 feet bgs at a concentration below the MTCA Method A Cleanup Level. Barium was detected in both samples at concentrations below the MTCA Method B Cleanup Level.

2.4.2 GROUNDWATER ANALYTICAL RESULTS

On August 11, 2022, WSP staff collected one grab groundwater sample from temporary boring KM-DP-01 at a depth of 15 to 20 feet bgs. The groundwater sample was analyzed for VOCs by EPA Method 8260D. Selected groundwater analytical results are depicted on Figure 3 and summarized in Table 2.

Laboratory analytical results were compared to Ecology preliminary groundwater screening levels. No VOCs, including vinyl chloride, were detected above the laboratory detection limit, with the exception of the unregulated VOC methylene chloride. Methylene chloride was detected at a concentration of 6.3 micrograms per liter (µg/L).

2.4.3 QUALITY ASSURANCE/QUALITY CONTROL

The groundwater and soil analytical results for the additional site characterization were reviewed in accordance with the Quality Assurance Project Plan (Appendix B in the Additional Investigation Work Plan [Amec Foster Wheeler, 2016]). Documentation provided in the analytical data package was acceptable, data quality was acceptable, and results from these samples may be considered usable with the limitations described in the data validation assessment summaries provided in Appendix B. Data qualifiers added during validation are summarized below:

- Methylene chloride was detected in the EPA Method 8260D analysis of the soil method blank and sample KM-DP-01. The data was flagged as due to laboratory contamination. In addition, the EPA Method 8260D methylene chloride calibration standard for sample KM-DP-01 exceeded the acceptance criteria. The data was flagged accordingly.
- The EPA Method 8260D soil and water matrix spike, laboratory control sample, and laboratory control sample duplicate exceeded the acceptance criteria for chloroethane. The compounds were not detected; therefore, the data was acceptable.

2.4.4 ADDITIONAL SITE CHARACTERIZATION SUMMARY

On August 11 and 12, 2022, WSP conducted additional site characterization activities at the Site at the request of Ecology. The purpose of this investigation was to characterize potential VOC concentrations in groundwater, specifically vinyl chloride, in the northwestern portion of the Site and to characterize potential metal concentrations, specifically arsenic, in shallow soil in the southeastern portion of the Site.

The soil laboratory analytical results for all metal concentrations in the sample collected at boring KM-DP-02 were below all applicable standards for the Site. Similarly, the groundwater analytical results for all VOC concentrations in the sample collected at boring KM-DP-01 were below all applicable standards for the Site.

3 GROUNDWATER MONITORING

The groundwater monitoring program consists of collecting groundwater samples from all Site monitoring wells twice a year, once during the dry season (August) and once during the wet season (March). Groundwater monitoring has been conducted twice a year since June 2016. Tables 3 through 5 provide information on groundwater elevations, field parameters, and groundwater analytical results. During the August 2022 dry season groundwater sampling event, WSP installed and sampled a new monitoring well on the Site (KMW-12) and another monitoring well downgradient from the Site (KMW-11). Two other monitoring wells, BFK-926 and BFK-927, were also sampled during the August dry season sampling. Figure 2 depicts the location of each monitoring well sampled during 2022.

3.1 WATER LEVEL MEASUREMENTS AND HYDROGEOLOGY

The groundwater monitoring program includes measuring water levels in each of the eight original and two newly installed monitoring wells. The reference points for determining water level elevations are the tops of the PVC well casings, which have been surveyed relative to mean sea level using the North American Vertical Datum of 1988. To reduce variation in groundwater level measurements, static water levels for all wells were measured on the same day and before the wells were purged and sampled. Groundwater levels were measured to the nearest 0.01 foot using an electronic water level meter. Groundwater level measurements from March 21, 2022, and August 19, 2022, are presented in Table 3 and shown on Figures 4 and 5.

Calculated groundwater elevation contours for associated water level measurements collected in March and August 2022 are presented on Figures 4 and 5, respectively. Water level measurements collected during both the

dry and wet season groundwater monitoring events indicate that groundwater generally flows to the south and west-southwest, in agreement with measurements from previous years (Wood, 2021). Groundwater elevations across the Site vary seasonally, with higher groundwater elevations observed in the wet season and lower elevations in the dry season. The wet season/dry season groundwater elevation fluctuations observed during the 2022 reporting period ranged between 1.68 feet in monitoring well KMW-10 and 2.32 feet in monitoring well KMW-08.

3.2 GROUNDWATER SAMPLING METHODOLOGY

Groundwater samples were collected on March 21 and 22 during the wet season and on August 16, 17, and 19 during the dry season. The groundwater samples were collected in accordance with the procedures outlined in the Additional Investigation Work Plan (Amec Foster Wheeler, 2016). Samples were collected using a peristaltic pump with pre-installed dedicated polyethylene tubing using EPA low-flow sampling techniques. Groundwater quality parameters were measured at each well during purging using a YSI multi-parameter water quality meter and were recorded on field data sheets (Appendix C). Water quality parameters measured included turbidity, pH, dissolved oxygen, specific conductivity, temperature, and oxidation reduction potential. Dissolved oxygen, specific conductivity, and oxidation reduction potential measurements are summarized in Table 4. Representative, unfiltered groundwater samples were collected upon stabilization of the water quality parameters over the course of three consecutive measurements.

Groundwater sample containers were filled directly from the pump tubing and were immediately placed on ice. Samples were transported under chain-of-custody protocols to Friedman & Bruya, Inc., in Seattle, Washington, for laboratory analyses. Groundwater samples were analyzed for the following:

- VOCs by EPA Method 8260D;
- Polycyclic aromatic hydrocarbons by EPA Method 8270;
- Total metals (arsenic, chromium, copper, lead, mercury, nickel, and zinc) by EPA Method 6020B;
- Total petroleum hydrocarbons in the gasoline range (TPH-G) by Ecology method NWTPH Gx; and
- Total petroleum hydrocarbons in the diesel and motor oil ranges (TPH-D and TPH-O) by Ecology Method NWTPH-Dx.

Laboratory data packages and data validation memoranda are included in Appendix B.

3.3 DATA VALIDATION RESULTS

The groundwater monitoring results for the dry and wet season events were reviewed in accordance with the Quality Assurance Project Plan (Appendix B in the Additional Investigation Work Plan [Amec Foster Wheeler, 2016]). Documentation provided in the analytical data package was acceptable, data quality was acceptable, and results from these samples may be considered usable with the limitations described in the data validation assessment summaries provided in Appendix B. Data qualifiers added during validation are summarized below:

- March 2022:
 - The relative percent differences for nickel results between KMW-10 and its field duplicate sample KMW-DUP was high, at 68 percent. Due to potential sampling and/or analytical imprecision, WSP J-FD qualified the detected nickel results for KMW-10 and KMW-DUP.
- August 2022:
 - According to the laboratory's notes, TPH-D results from samples BFK-926-08172022, BFK-927-08162022, KMW-DUP-08172022, KMW-03R-08192022, KMW-04-08172022, KMW-06-08162022, KMW-07-08192022, KMW-08-08192022, KMW-09-08162022, KMW-10-08172022, and KMW-11-08172022; and TPH-O results from samples KMW-06-08162022 and KMW-09-08162022 do not match the hydrocarbon patterns from

the fuel standards used for quantitation. WSP reviewed the chromatograms from the associated analyses and reached the following conclusions:

- The TPH-D detection in sample KMW-11-08172022 seems to be due to individual analyte peaks and is not representative of a hydrocarbon signature.
- TPH-D detections in samples KMW-03R-08192022, KMW-04-08172022, and KMW-07-08192022 appear to be representative of a light distillate, such as Stoddard solvent. It is possible that the same signature is present in sample KMW-09-08162022 too, but there is chromatographic interference in that sample from a second hydrocarbon heavier than diesel and lighter than motor oil, such as hydraulic or transmission fluid, which is being reported as TPH-O.
- TPH-D detections in sample BFK926-08172022, KMW-08-08192022, and KMW-10-0817202 appear to be diesel, with the detection in sample KMW-08-08192022 being highly degraded or weathered.
- The laboratory did not provide enough of the chromatogram to assess hydrocarbon identification in sample KMW-06-08162022.
- The relative percent differences between methylene chloride results were high, at 27 percent in the laboratory control sample and laboratory control sample duplicate associated with the analysis of samples KMW-02R-08192022, KMW-03R-08192022, KMW-07-08192022, and KMW-08-08192022. Due to potential analytical imprecision, WSP J-HD qualified the detected methylene chloride result from sample KMW-03R-08192022. Methylene chloride was not detected in the remaining associated samples and data usability is not adversely affected by the potential analytical imprecision.
- According to the laboratory's notes, methylene chloride recovery was high in the calibration standard associated with the analysis of sample KM-DP-01-15'-20'. Because the calibration standard did not meet criteria, WSP J-BC qualified the detected methylene chloride result from sample KM-DP-01-15'-20'.
- According to the laboratory's notes, the methylene chloride detections in samples KM-DP-01-15'-20', KMW-03R-08192022, and KMW-06-08162022 may be due to laboratory contamination. Due to laboratory contamination, WSP J-PC qualified the detected methylene chloride results from samples KM DP 01 15' 20', KMW 03R 08192022, and KMW 06 08162022.
- Ethylbenzene, m,p-xylene, and o-xylene results from samples BFK-927-08162022, KMW-04-08172022, KMW-10-08172022, and KMWDUP-08172022 should be reported from the 1:200 dilution analyses. All other results should be reported from the undiluted analyses.

A list of qualified data is presented in the data validation assessment summary (Appendix B).

3.4 GROUNDWATER ANALYTICAL RESULTS

Groundwater results for commonly detected compounds are presented in Table 5, along with the results for detected compounds in sampling events conducted since 2011. Figures 6 and 7 present select groundwater constituents for the March 2022 and August 2022 sampling events, respectively.

3.4.1 TOTAL PETROLEUM HYDROCARBONS

Elevated concentrations of TPH-G continue to persist at groundwater monitoring wells KMW-04, KMW-06, KMW-09, and KMW-10 (Figures 6 and 7). During the March 2022 wet season sampling event, TPH-G exceeded the Site screening level (the MTCA Method A Cleanup Level) of 800 µg/L, where benzene is present, at monitoring wells KMW-04, KMW-06, and KMW-10 at concentrations of 6,700 µg/L, 860 µg/L, and 6,200 µg/L, respectively. During the August 2022 dry season sampling event, TPH-G exceeded the Site screening level of 800 µg/L, where benzene is present, at monitoring wells KMW-04 (28,000 µg/L), KMW-06 (1,300 µg/L), KMW-10 (60,000 µg/L), and BFK 927 (24,000 µg/L).

TPH-D and/or TPH-O have been detected in the groundwater from all of the monitoring wells except for KMW-02R and KMW-07 at least once since sampling began in 2011. During the March 2022 wet season sampling event

(see Figures 6 and 7), TPH-D exceeded the Site screening level (also the MTCA Method A Cleanup Level) of 500 µg/L at monitoring wells KMW-06 (9,600 µg/L), KMW-08 (1,800 µg/L), KMW-09 (4,500 µg/L), and KMW-10 (6,900 µg/L). During the August 2022 dry season sampling event, TPH-D exceeded the Site screening level of 500 µg/L at monitoring wells KMW-04 (1,000 µg/L), KMW-06 (9,500 µg/L), KMW-09 (4,300 µg/L), KMW-10 (5,000 µg/L), BFK 296 (920 µg/L), and BFK 927 (1,800 µg/L).

During the March 2022 wet season sampling event (See Figures 6 and 7), TPH-O exceeded the Site screening level (also the MTCA Method A Cleanup Level) of 500 µg/L at monitoring wells KMW-06 (1,700 µg/L), KMW-08 (980 µg/L), and KMW-09 (530 µg/L). During the August 2022 dry season sampling event, TPH-O exceeded the Site screening level of 500 µg/L at monitoring wells KMW-06 (2,100 µg/L) and KMW-09 (750 µg/L).

3.4.2 VOLATILE ORGANIC COMPOUNDS

Groundwater samples were analyzed for the full list of VOC compounds. Toluene, ethylbenzene, and xylenes compounds were the most frequently detected VOCs, and were predominantly detected in the central area of the Site at monitoring well KMW-04 and downgradient at off-site monitoring well KMW-10, where TPH-G also has been detected. These VOC detections are most prevalent in the groundwater from KMW-04, and concentrations appear to fluctuate over time depending on the groundwater elevation, like the TPH-G concentrations in the groundwater from KMW-04. We expect to see VOC concentrations decrease in groundwater at KMW-04 as SVE and air sparging continue to target the western portion of the property.

Other VOC compounds detected in the groundwater during the reporting period are 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, acetone, ethylbenzene, xylenes, and toluene, all of which were detected in the groundwater collected from KMW-04 and/or KMW-10 during one or both sampling events (March 2022 and August 2022).

The chlorinated VOC vinyl chloride was detected in off-site monitoring well KMW-10 during both 2022 sampling events at concentrations below the Ecology preliminary screening level (Ecology, 2019). Chlorinated VOCs were not detected in any other monitoring well during this reporting period, which is consistent with historical results.

3.4.3 CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS

Carcinogenic polycyclic aromatic hydrocarbons were detected above the preliminary screening levels (Ecology, 2019) during the March 2022 and August 2022 groundwater sampling events as shown on Figures 6 and 7. None of the groundwater samples from either event exceeded the Site screening level of 0.20 µg/L for the total Toxicity Equivalency Quotient.

3.4.4 METALS

Groundwater samples were analyzed for total arsenic, chromium, copper, lead, mercury, nickel, and zinc. The concentrations of metals in the groundwater samples were below Site screening levels, except for arsenic (See Figures 6 and 7). During the March 2022 wet season sampling event, arsenic slightly exceeded the Ecology background level (also the MTCA Method A Cleanup Level) of 5.0 µg/L in monitoring wells KMW-03R (12.0 µg/L) and KMW-10 (8.58 µg/L). During the August 2022 dry season sampling event, arsenic slightly exceeded the Ecology background level of 5.0 µg/L in KMW-04 (5.63 µg/L) and KMW-10 (5.44 µg/L).

4 SOIL VAPOR EXTRACTION/AIR SPARGE SYSTEM OPERATIONS

4.1 DESIGN, INSTALLATION, AND OPERATIONS

4.1.1 SVE SYSTEM DESIGN AND INSTALLATION

SVE and air sparging technologies were selected to address past subsurface releases of hydrocarbons associated with former paint manufacturing activities at the Site. SVE uses a vacuum to extract soil vapors from the subsurface, while in-situ air sparging injects air into the saturated zone to help volatilize hydrocarbons to increase the contaminant removal rate. Both methods introduce or help move oxygen into and through the subsurface, which also promotes aerobic biodegradation of residual hydrocarbons.

A series of eight horizontal SVE wells (SVE-01 through SVE-08) were installed beneath the building during redevelopment in 2015. After building construction was completed, a second set of five horizontal SVE wells (SVE-09 through SVE-13) were installed in the parking lot on the western side of the Site. A set of five air sparge wells (IAS-1 through IAS-5) were installed between the western SVE wells. Figure 8 shows the locations of the SVE horizontal wells at the Site, and Figure 9 shows the locations of the air sparge wells. Applicable permits and construction details were included in the 2017 Summary of Investigations and Remedial Actions (Wood, 2018).

The SVE wells installed under the building were routed to a common manifold (referred to as the eastern manifold) located in a walkway between the north warehouse and the south warehouse. The SVE wells installed on the west side of the building were routed to a common manifold (referred to as the western manifold), which is located in a fenced-off area near the treatment equipment. Figure 10 shows the current configuration of the SVE and air sparge system.

The SVE (vacuum) blower and air sparge compressor were installed adjacent to the western manifold along with a catalytic oxidizer (CATOX) unit. The CATOX unit is used to treat the extracted soil vapor as well as volatilized hydrocarbons sparged from the shallow groundwater recovered by the western SVE wells. The treatment system was permitted with the Puget Sound Clean Air Agency (PSCAA) as detailed in the 2017 Summary of Investigations and Remedial Actions (Wood, 2018) and as approved by PSCAA (2017) per the Notice of Construction No. 11291, under Registration No. 29932 (PSCAA, 2017).

Figure 11 is an abbreviated piping and instrumentation diagram showing the SVE system and the treatment equipment. Both eastern and western SVE manifolds route extracted soil vapor to the CATOX treatment unit. The combined SVE and air sparging system is equipped with automatic controls and an auto-dialer that notifies WSP and O&M personnel when the CATOX system or other components have shut down with an alarm condition or if specific maintenance tasks are required, such as disposal of condensate water that is produced by the SVE wells and collected in the 30-gallon knock-out tank. The system is equipped with a 250-gallon polyethylene tote (referred to as the condensate storage tank) to store produced water that is pumped from the knock-out tank. Both the knock-out tank and the condensate storage tank have high level alarm switches directed to the control system to shut down the SVE blower if high level alarm conditions occur to reduce the risk of overfilling. The entire air sparging system is configured to shut down immediately upon an alarm condition of the SVE system.

4.1.2 SVE AND AIR SPARGE OPERATIONS

The SVE system has operated semi-continuously between January 2022 and December 2022. Because the SVE and CATOX systems use three-phase electrical power, they are sensitive to local power variations and occasionally shut-down due to power fluctuations and outages. The system will also shut down periodically due to high level alarm conditions in the condensate storage tank due to increased condensate production that typically peaks in the winter/wet season. In summer, power outages/fluctuations typically occur due to increased demand for air conditioning. When these events occur, O&M personnel are alerted via the auto-dialer and address the issue(s).

during an expedited site visit. Due to elevated groundwater levels during the middle of the winter/wet season where groundwater actually starts to enter the western manifold SVE wells, these wells are closed along with deactivation of the nearby in-situ air sparging wells for a few months. When groundwater levels lower during the late winter/early spring, these wells to allow sufficient air movement without water entry, the western manifold wells are brought back on-line with the in-situ air sparging system.

4.2 SVE AND AIR SPARGE PERFORMANCE EVALUATION

4.2.1 CATOX PERFORMANCE MONITORING AND REGULATORY COMPLIANCE

Since initial startup of the SVE system in November 2017, performance monitoring vapor samples have been collected monthly from the CATOX influent vapor stream sampling port and at the effluent sample port on the emissions stack. In compliance with the PSCAA Notice of Construction requirements, monthly performance monitoring samples are field measured using either a PID or a flame ionization detector (FID) calibrated to 100 parts per million hexane. PID/FID readings are reported on field forms presented in Appendix D. Monthly performance monitoring samples are also collected and submitted to Friedman & Bruya, Inc., in Seattle, Washington, for laboratory analyses of benzene and TPH-G by EPA Method TO-15. Monthly analytical results for SVE performance monitoring from January 2022 through December 2022 are summarized on Table 6, and analytical reports are provided in Appendix D.

The CATOX performance is determined by its mass removal efficiency (MRE) of TPH-G from extracted soil vapor from the SVE wells. MRE is calculated from results of PID/FID field measurements and analytical laboratory results of samples collected at the CATOX influent and at the effluent emissions stack. These data are shown in Table 7. MREs have exceeded the minimum PSCAA Notice of Construction requirements in 2022 and demonstrate compliant system performance. The CATOX hour meter failed in April 2022 and was replaced on May 10, 2022. The operational hours during that period were estimated.

4.2.2 SVE AND AIR SPARGE OPTIMIZATION AND PERFORMANCE MONITORING

From November 2017 through December 2022, an estimated 7,730 pounds of TPH-G (as hexane equivalent using FID results) were removed from the subsurface by the SVE system in conjunction with the air-sparge system. Table 7 summarizes the performance data. Mass removal rates are highest in the summer months when SVE concentrations are high due to lower groundwater levels, which causes the smear zone to be exposed for volatilization and recovery of volatile constituents through increased soil vapor flow by the SVE system. The flows from the individual SVE wells are optimized during the monthly site visits to maximize the concentration of hydrocarbons to the CATOX influent. Recently, the highest-concentration SVE wells have been from SVE-07 and SVE-08.

SVE mass removal rates generally diminish when site groundwater levels rise during the winter, thereby reducing the vadose zone thickness and available volume for subsurface vapor movement and with a decrease in SVE influent concentrations. Wet season operations are also less efficient due to intermittent alarm conditions and periodic shutdowns associated with increased condensate production at the CATOX knockout tank and occasional power outages and fluctuations due to storms. As mentioned above, when groundwater levels reach a high elevation with respect to the screened intervals of the western manifold SVE wells in the middle of winter, all of the western manifold SVE wells are closed in addition to the air sparge wells. Monthly O&M visits are used to operate and adjust the SVE and air sparge systems (when operational) during the wet and dry seasons to optimize mass removal year round. Field forms documenting the operation and monitoring of the SVE and air sparging system are provided in Appendix E.

5 UPCOMING TASKS

The following actions will be conducted before the end of 2023:

- Groundwater samples will be collected for the wet season sampling event in March 2023 and dry season sampling event in August 2023.
- SVE and air sparging system inspections (including performance monitoring sampling) will occur at least monthly. On-site personnel will continue to optimize SVE and air sparging operating conditions in order to maximize mass removal rates and CATOX performance.
- Kelly-Moore and Ecology would like to continue working together to take the necessary steps to eventually obtain “No Further Action” for the Site.

6 REFERENCES

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Additional Investigation Work Plan, Former Kelly-Moore Manufacturing Facility, 5400-5580 Airport Way South, Seattle, Washington, June.

Ecology – see Washington State Department of Ecology

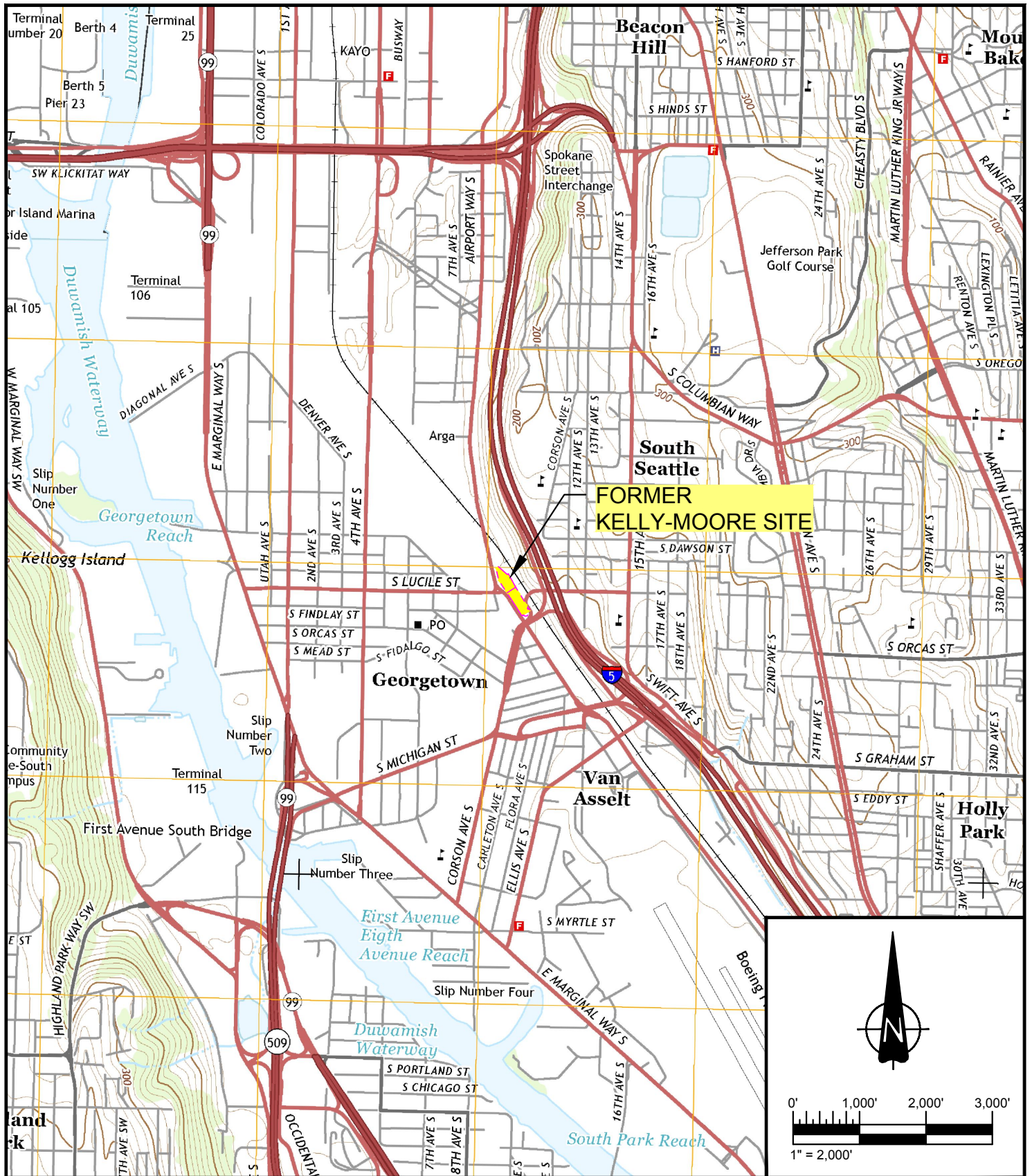
Puget Sound Clean Air Agency (PSCAA), 2017. Order of Approval to Construct, Install, or Establish, Kelly Moore Paint Company 5400 Airport Way S, Seattle, Washington, February 22.

Washington State Department of Ecology (Ecology), 2019, Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the Kelly-Moore Paint Company Hazardous Waste Site, Letter from Jing Song, Toxics Cleanup Program, to Mary Logue, Kelly-Moore Paint Company, November 22.

Wood Environment & Infrastructure Solutions, Inc. (Wood), 2018, 2017 Summary of Investigations and Remedial Actions, Former Kelly-Moore Manufacturing Facility, 5400-5580 Airport Way South, Seattle, Washington, June 5.

Wood, 2022, 2020-2021 Annual Report, Former Kelly-Moore Manufacturing Facility, 5400-5580 Airport Way South, Seattle, Washington, March 25.

FIGURES



**KELLY-MOORE
PAINT COMPANY**

WSP
4020 Lake Washington Blvd. NE, Suite 200
Kirkland, WA 98033

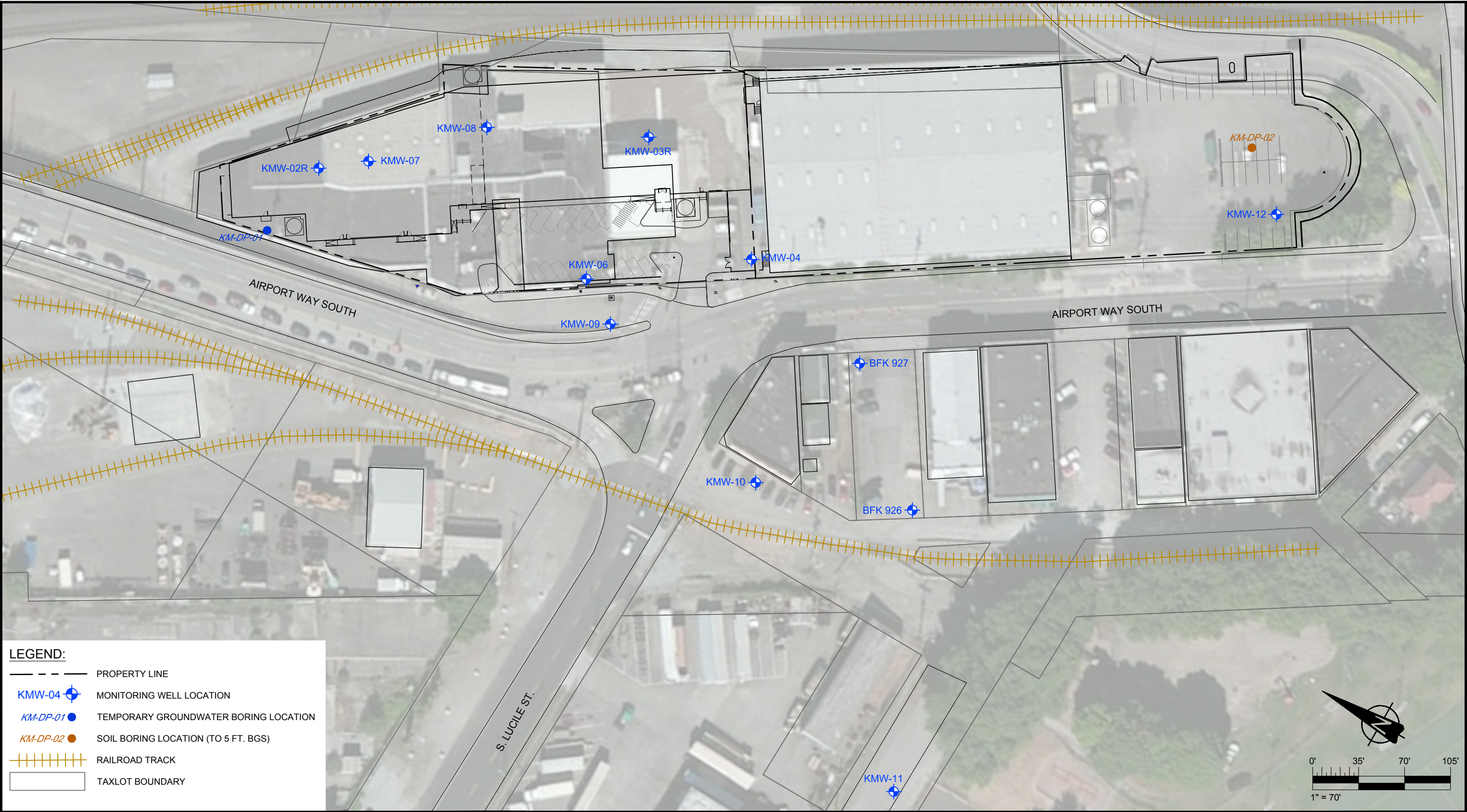


2022 ANNUAL REPORT

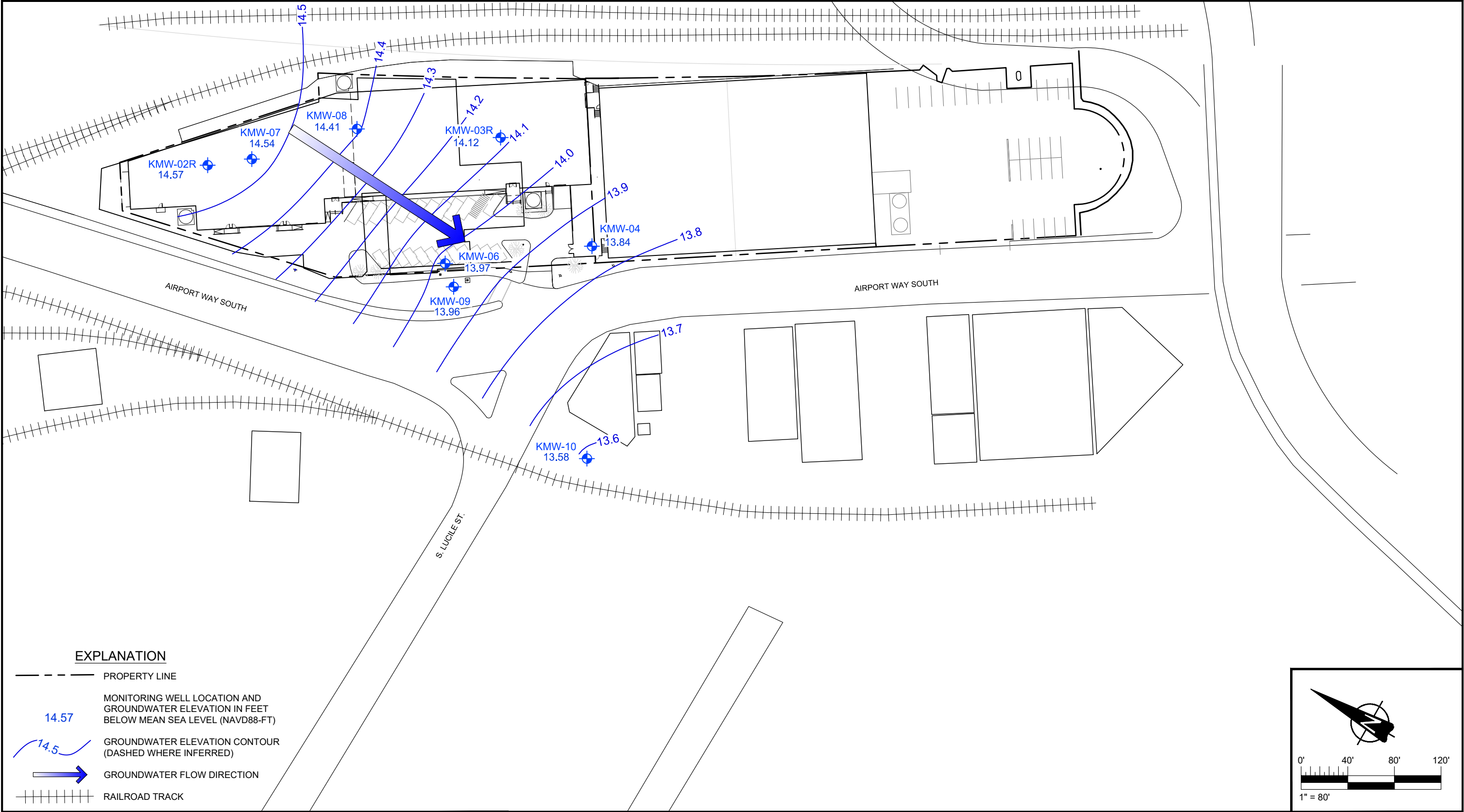
SITE VICINITY MAP

DATE
FEBRUARY 2023
SCALE
1" = 2,000'
PROJECT NO.
PS21204540.01
FIGURE

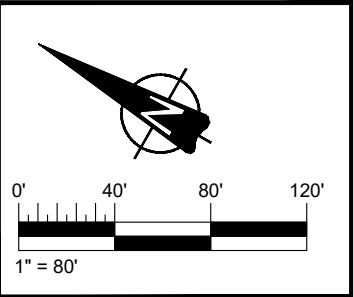
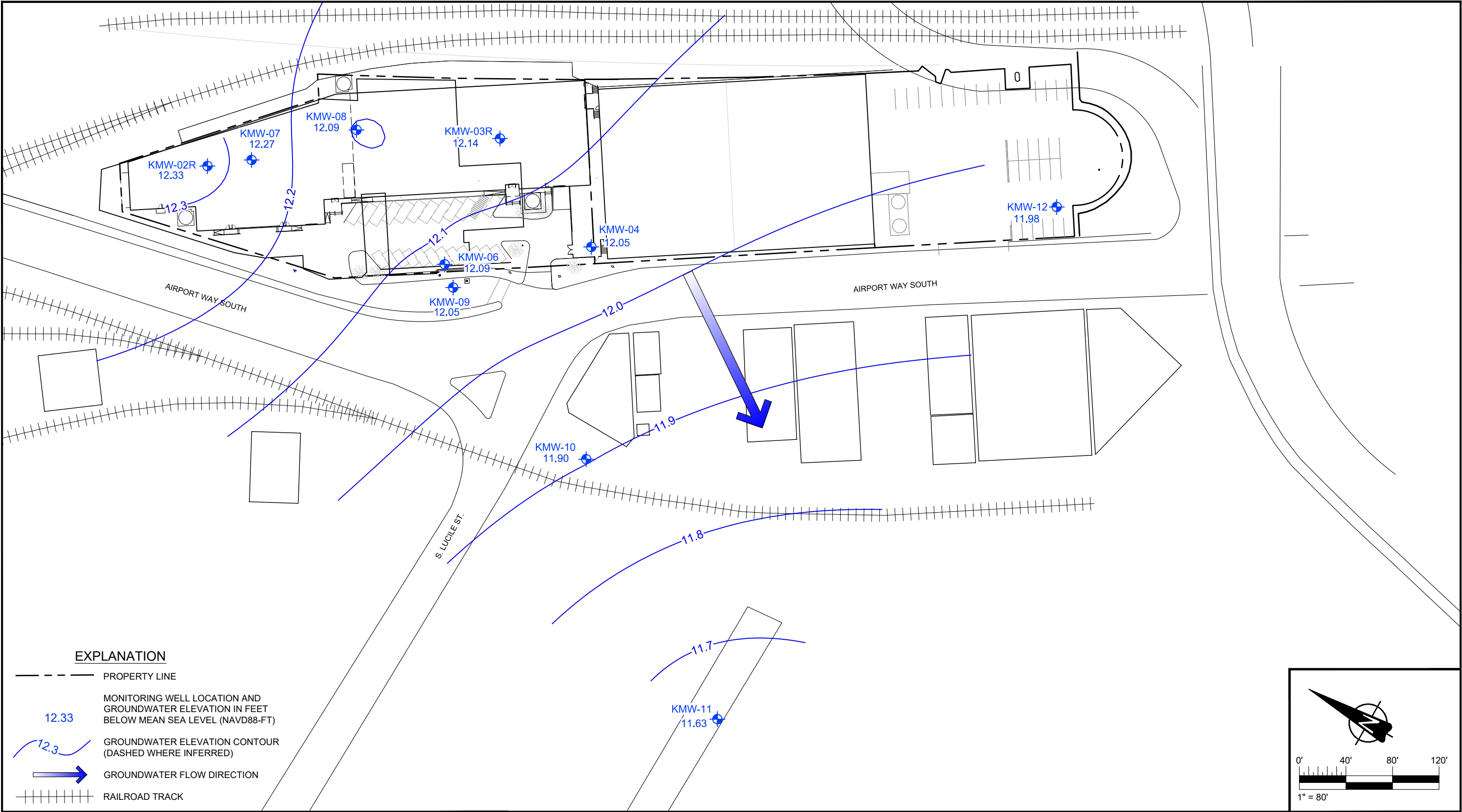
1



	KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE APRIL 2023
	WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		SITE DETAIL MAP	SCALE 1" = 70'
				PROJECT NO. PS21204540.01
				FIGURE 2



	KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE FEBRUARY 2023
				SCALE 1" = 80'
	WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		MARCH 2022 WET SEASON GROUNDWATER CONTOURS	PROJECT NO. PS21204540.01
				FIGURE 4



KELLY-MOORE PAINT COMPANY

WSP
4020 Lake Washington Blvd. NE, Suite 200
Kirkland, WA 98033

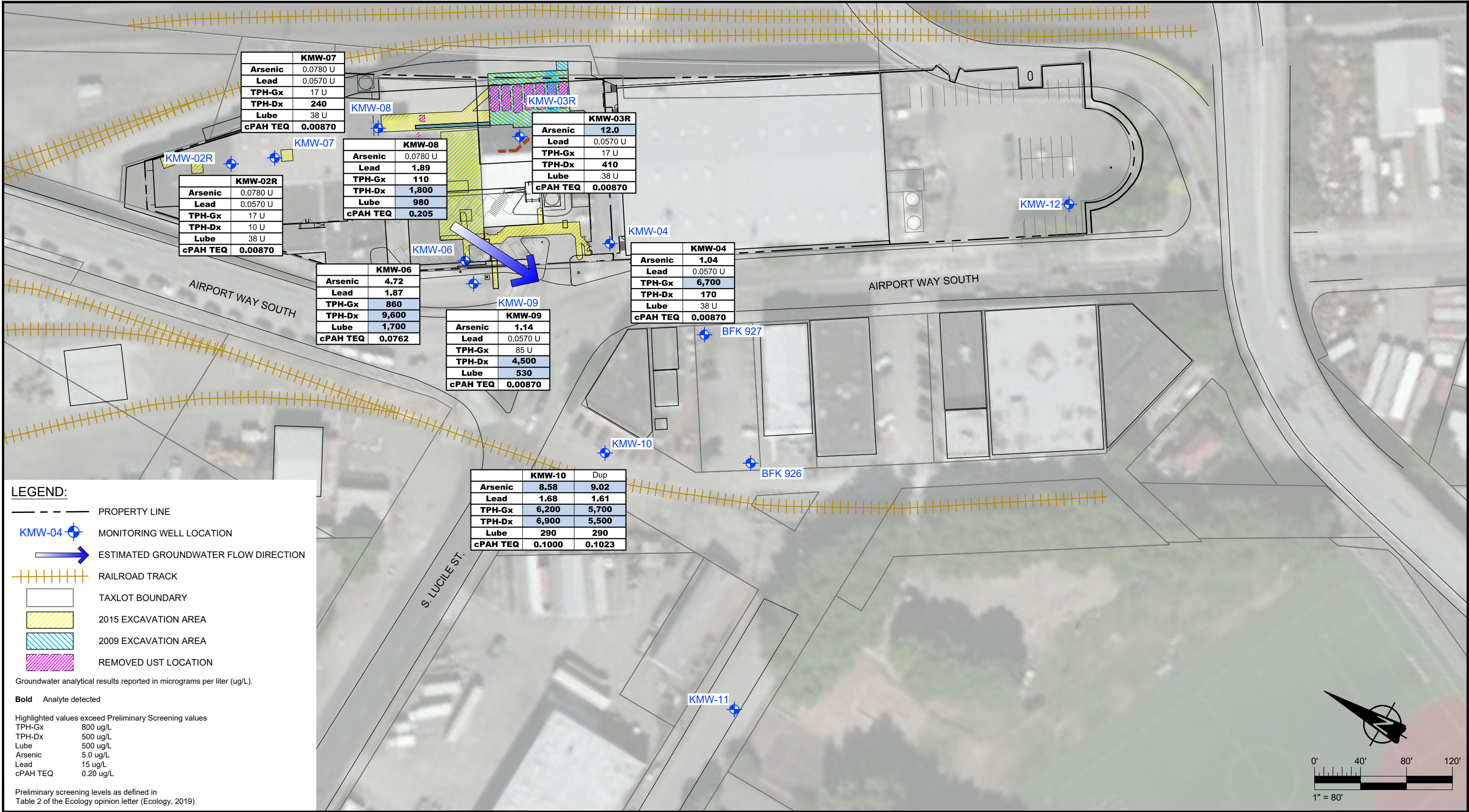


2022 ANNUAL REPORT

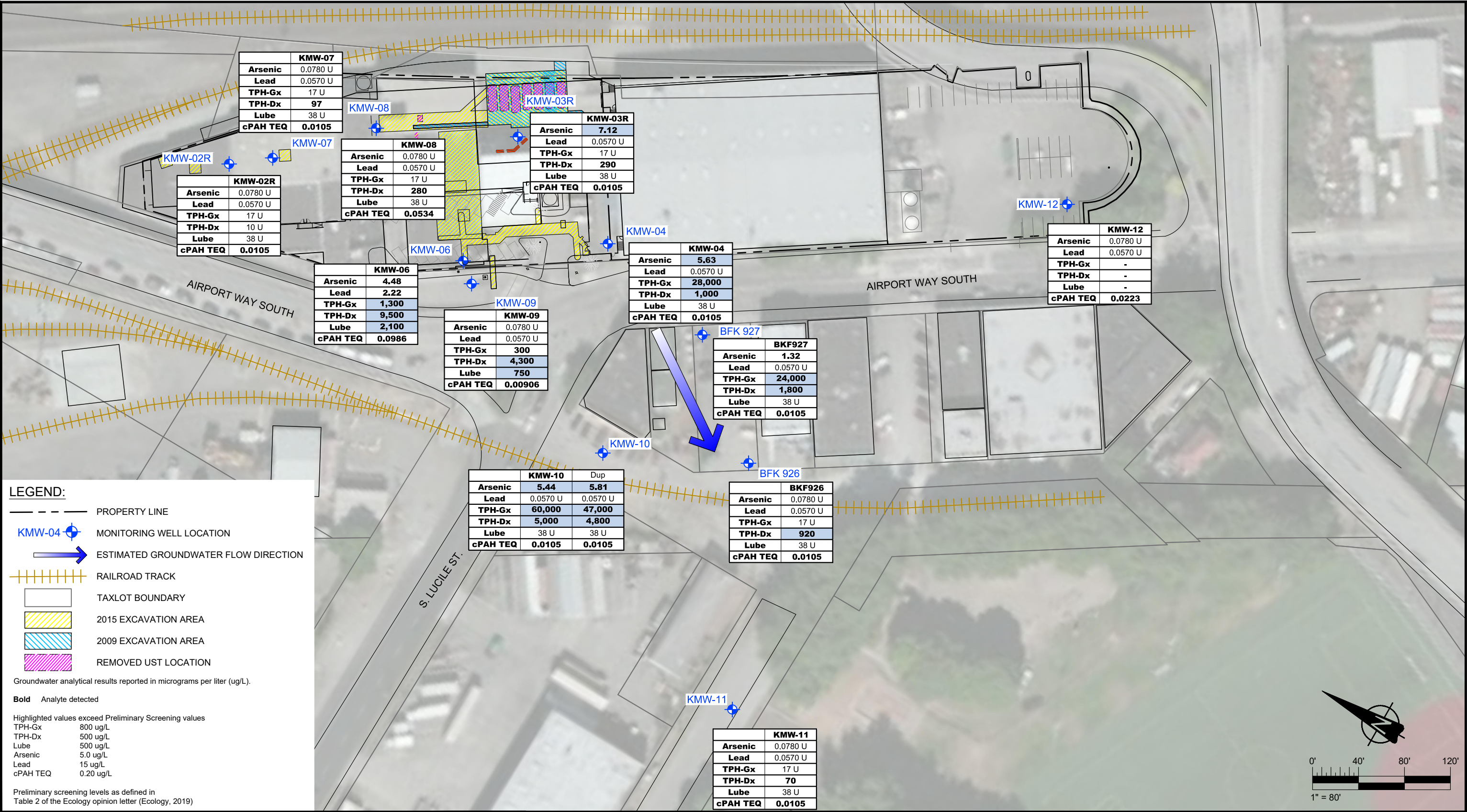
AUGUST 2022 DRY SEASON
GROUNDWATER CONTOURS

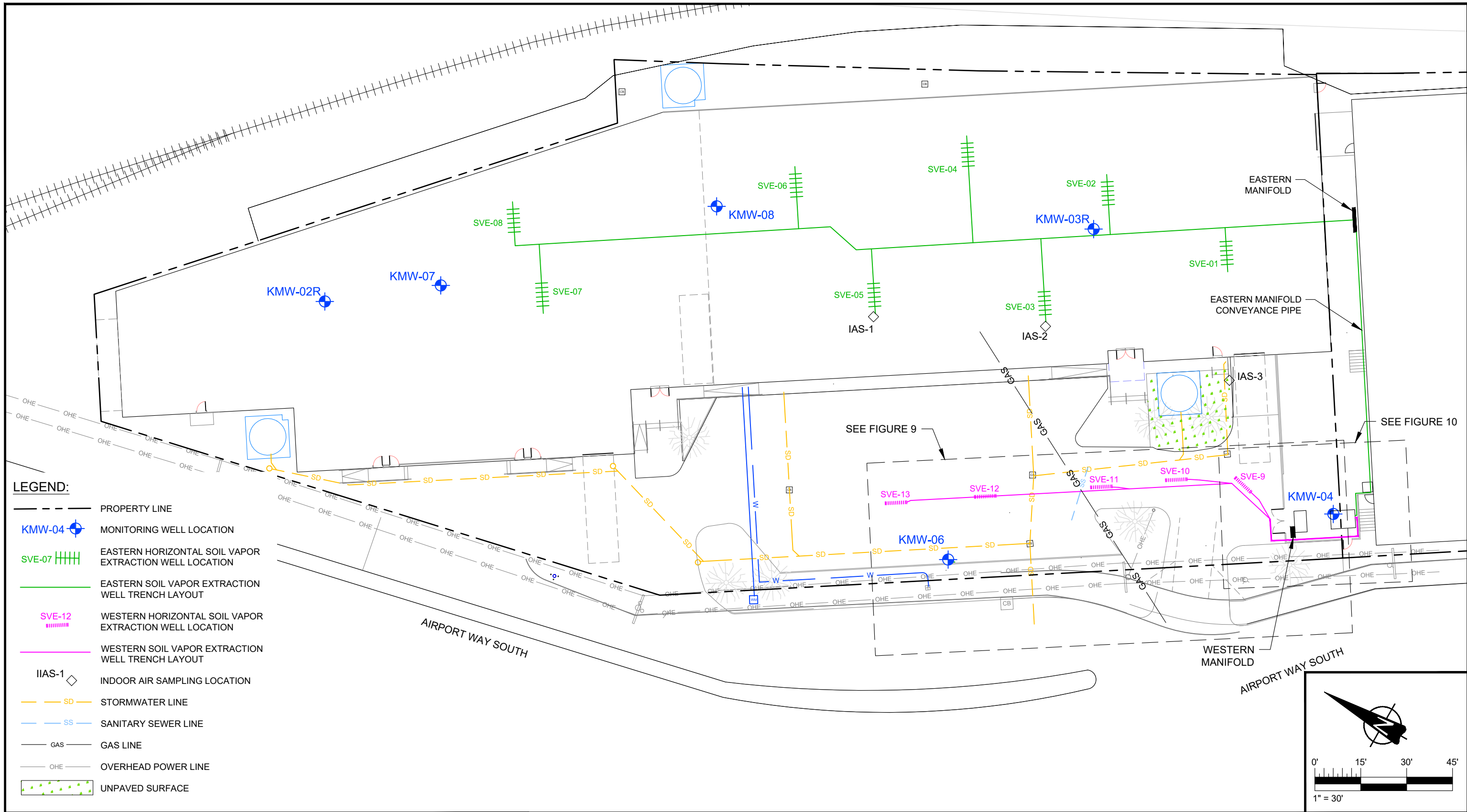
DATE	FEBRUARY 2023
SCALE	1" = 80'
PROJECT NO.	PS21204540.01
FIGURE	5

DRAWN BY: APS CHECKED BY: JB



	KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE MAY 2023
	WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		MARCH 2022 SELECT CONSTITUENTS IN GROUNDWATER	SCALE 1" = 80'
				PROJECT NO. PS21204540.01
				FIGURE 6

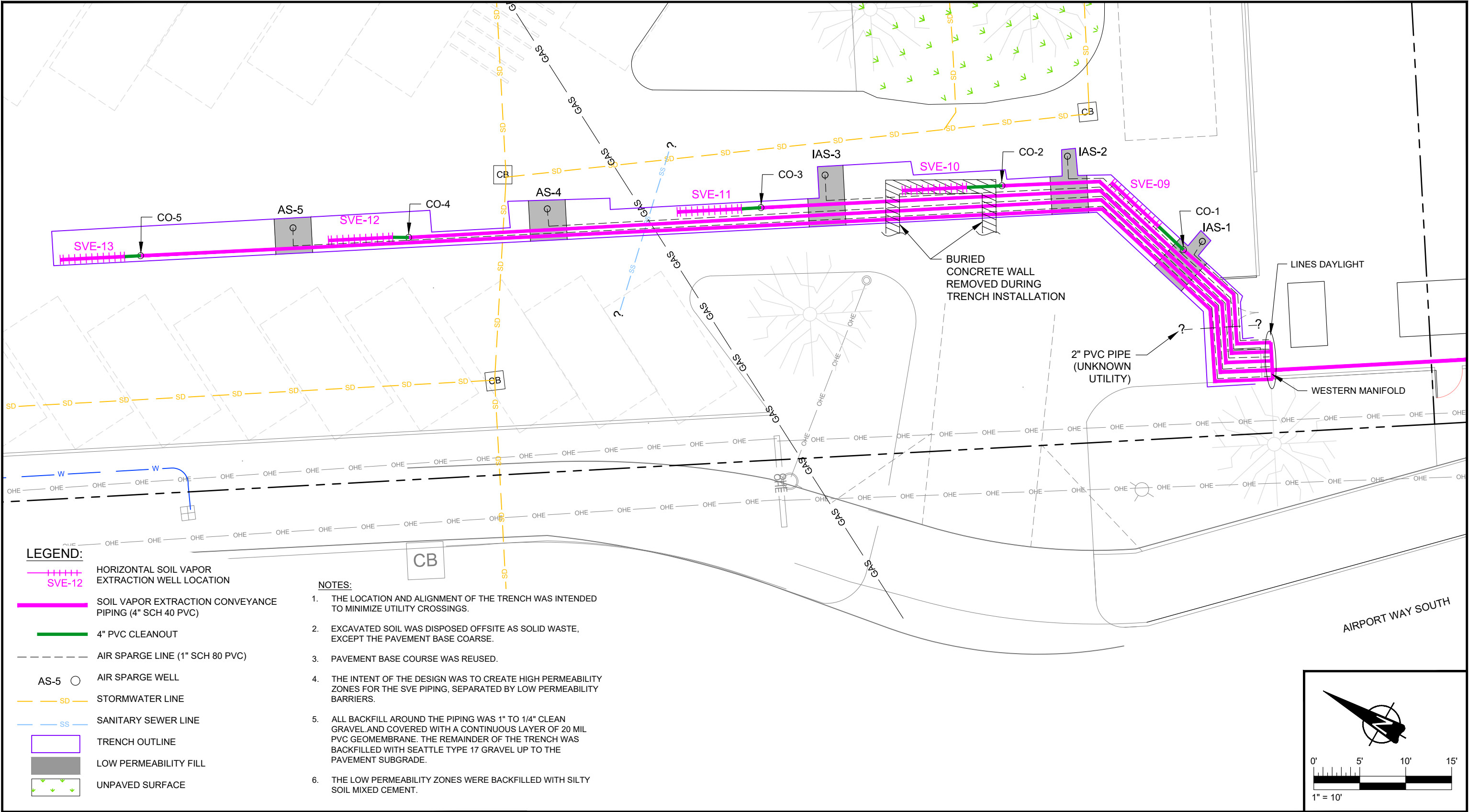




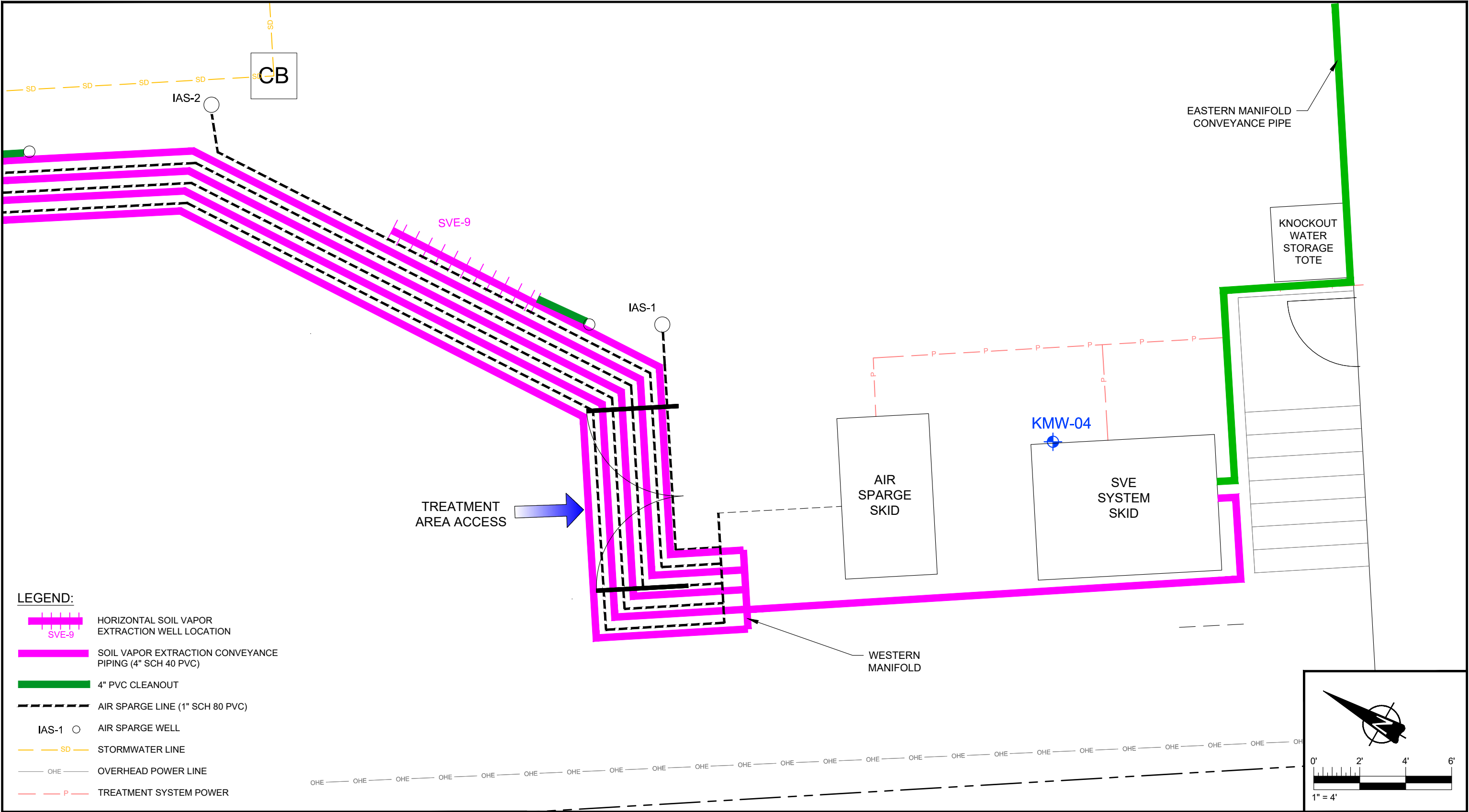
DRAWN BY: SD, CHECKED BY: CD

K:\AMEC US OFFICES\Seattle\14697 - Kelly Moore\dwg\Annual_Report_2022\Figure 8-11 - SVE System.dwg - 8 - Apr. 13, 2023 9:54am - stephane.descombes

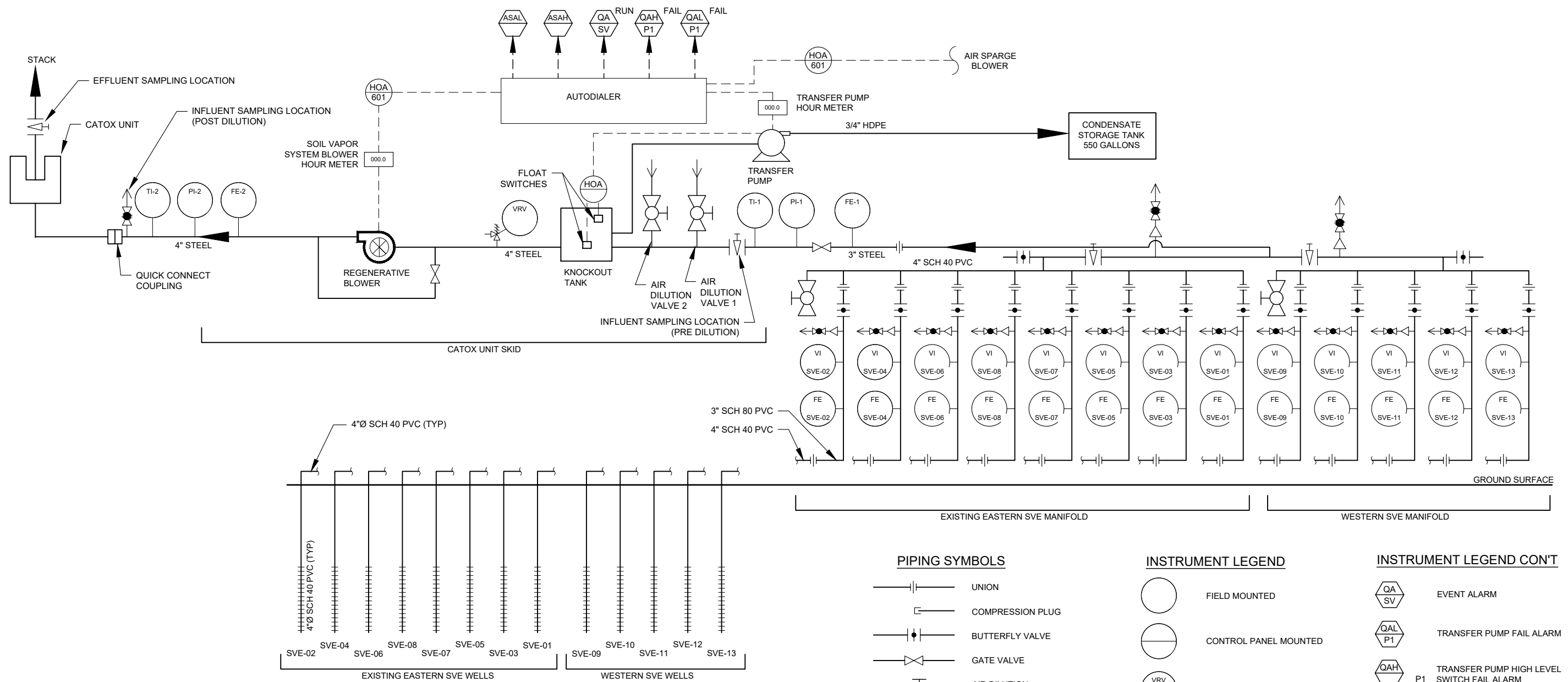
KELLY-MOORE PAINT COMPANY WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		2022 ANNUAL REPORT		DATE	APRIL 2023
		SVE WELL LAYOUT		SCALE	1" = 30'
				PROJECT NO.	PS21204540.01
				FIGURE	8



	KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE APRIL 2023
	WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		WESTERN SVE & AIR SPARGE TRENCH	SCALE 1" = 10'
				PROJECT NO. PS21204540.01
				FIGURE 9



	KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE APRIL 2023
	WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033		TREATMENT SYSTEM PLAN VIEW	SCALE 1" = 4'
				PROJECT NO. PS21204540.01
				FIGURE 10



PIPING SYMBOLS		INSTRUMENT LEGEND		INSTRUMENT LEGEND CONT'	
	UNION		FIELD MOUNTED		EVENT ALARM
	COMPRESSION PLUG		CONTROL PANEL MOUNTED		TRANSFER PUMP FAIL ALARM
	BUTTERFLY VALVE		VACUUM RELIEF VALVE		TRANSFER PUMP HIGH LEVEL SWITCH FAIL ALARM
	GATE VALVE		VACUUM INDICATOR		AIR SPARGE BLOWER HIGH PRESSURE ALARM
	AIR DILUTION BALL VALVE		TEMPERATURE INDICATOR		AIR SPARGE BLOWER LOW PRESSURE ALARM
	REDUCER		FLOW ELEMENT	ABBREVIATIONS	
	1/4" SAMPLE PORT		HAND OFF AUTO	TYP	TYPICAL
	MICROSEEPS SAMPLE PORT			PVC	POLYVINYL CHLORIDE
EQUIPMENT SYMBOLS				SCH	SCHEDULE
	REGENERATIVE BLOWER			GAC	GRANULAR ACTIVATED CARBON
	TRANSFER PUMP				

DRAWN BY: SD, CHECKED BY: CD

KELLY-MOORE PAINT COMPANY		2022 ANNUAL REPORT	DATE	
			APRIL 2023	
			SCALE	
WSP 4020 Lake Washington Blvd. NE, Suite 200 Kirkland, WA 98033			CATOX SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM	N/A
	PROJECT NO.			
	PS21204540.01			
				FIGURE
			11	

TABLES

Table 1: Soil Analytical Results¹

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	MTCA Method A Unrestricted Land Use ²	MTCA Method B Direct Contact Noncancer ²	KM-DP-02	KM-DP-02
						08/11/22	08/11/22
						KM-DP-02-1'-2'	KM-DP-02-4'-5'
						N	N
Metals	Arsenic	7440-38-2	mg/kg	20.0	24.0	5.91	2.84
	Barium	7440-39-3	mg/kg	NA	16,000	217	22.8
	Cadmium	7440-43-9	mg/kg	2.0	80.0	1.18	1.0 U
	Chromium	7440-47-3	mg/kg	19.0	240	14.8	6.11
	Lead	7439-92-1	mg/kg	250	NA	131	1.50
	Mercury	7439-97-6	mg/kg	2.0	NA	1.0 U	1.0 U
	Selenium	7782-49-2	mg/kg	NA	400	1.0 U	1.0 U
	Silver	7440-22-4	mg/kg	NA	400	1.0 U	1.0 U

Notes

1. **BOLD** indicates analyte detections.

2. Method A and Method B as defined in the 2023 CLARC Soil Unrestricted Land Use Table, available at:

<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC/Data-tables>

Abbreviations:

CAS = Chemical Abstracts Service

CLARC = cleanup levels and risk calculation

mg/mg = milligram per kilogram

MTCA = Model Toxics Control Act

NA = not applicable

Table 2: Groundwater Analytical Results^{1,2}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ³	KM-DP-01
					08/11/22
					KM-DP-01-15'-20'
					N
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	-	1.0 U
	1,1,1-Trichloroethane	71-55-6	µg/L	-	1.0 U
	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	-	0.20 U
	1,1,2-Trichloroethane	79-00-5	µg/L	-	0.50 U
	1,1-Dichloroethane	75-34-3	µg/L	-	1.0 U
	1,1-Dichloroethene	75-35-4	µg/L	-	1.0 U
	1,1-Dichloropropene	563-58-6	µg/L	-	1.0 U
	1,2,3-Trichlorobenzene	87-61-6	µg/L	-	1.0 U
	1,2,3-Trichloropropane	96-18-4	µg/L	-	1.0 U
	1,2,4-Trichlorobenzene	120-82-1	µg/L	-	1.0 U
	1,2,4-Trimethylbenzene	95-63-6	µg/L	80	1.0 U
	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	-	10 U
	1,2-Dibromoethane	106-93-4	µg/L	-	1.0 U
	1,2-Dichlorobenzene	95-50-1	µg/L	-	1.0 U
	1,2-Dichloroethane	107-06-2	µg/L	-	0.20 U
	1,2-Dichloropropane	78-87-5	µg/L	-	1.0 U
	1,3,5-Trimethylbenzene	108-67-8	µg/L	80	1.0 U
	1,3-Dichlorobenzene	541-73-1	µg/L	-	1.0 U
	1,3-Dichloropropane	142-28-9	µg/L	-	1.0 U
	1,4-Dichlorobenzene	106-46-7	µg/L	-	1.0 U
	2,2-Dichloropropane	594-20-7	µg/L	-	1.0 U
	2-Butanone (MEK)	78-93-3	µg/L	-	20 U
	2-Chlorotoluene	95-49-8	µg/L	-	1.0 U
	2-Hexanone	591-78-6	µg/L	-	10 U
	4-Chlorotoluene	106-43-4	µg/L	-	1.0 U
	4-Isopropyltoluene	99-87-6	µg/L	-	1.0 U
	4-Methyl-2-Pentanone (MIBK)	108-10-1	µg/L	-	10 U
	Acetone	67-64-1	µg/L	7,200	50 U
	Benzene	71-43-2	µg/L	5.0	0.35 U
	Bromobenzene	108-86-1	µg/L	-	1.0 U
	Bromodichloromethane	75-27-4	µg/L	-	0.50 U
	Bromoform	75-25-2	µg/L	-	5.0 U
	Bromomethane	74-83-9	µg/L	-	5.0 U
	Carbon tetrachloride	56-23-5	µg/L	-	0.50 U
	Chlorobenzene	108-90-7	µg/L	-	1.0 U
	Chloroethane	75-00-3	µg/L	-	1.0 U
	Chloroform	67-66-3	µg/L	-	1.0 U
	Chloromethane	74-87-3	µg/L	-	10 U
	cis-1,2-Dichloroethene	156-59-2	µg/L	-	1.0 U
	cis-1,3-Dichloropropene	10061-01-5	µg/L	-	0.40 U

Table 2: Groundwater Analytical Results^{1, 2}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ³	KM-DP-01
					08/11/22
					KM-DP-01-15'-20'
					N
VOCs (cont.)	Dibromochloromethane	124-48-1	µg/L	-	0.50 U
	Dibromomethane	74-95-3	µg/L	-	1.0 U
	Dichlorodifluoromethane	75-71-8	µg/L	-	1.0 U
	Ethylbenzene	100-41-4	µg/L	700	1.0 U
	Hexachlorobutadiene	87-68-3	µg/L	-	0.50 U
	Isopropylbenzene	98-82-8	µg/L	-	1.0 U
	m,p-Xylene	1330-20-7	µg/L	1,600	2.0 U
	Methyl tert-Butyl Ether (MTBE)	1634-04-4	µg/L	-	1.0 U
	Methylene chloride	75-09-2	µg/L	-	6.3 J
	Naphthalene	91-20-3	µg/L	160	1.0 U
	n-Hexane	110-54-3	µg/L	-	5.0 U
	n-Propylbenzene	103-65-1	µg/L	-	1.0 U
	o-Xylene	95-47-6	µg/L	1,600	1.0 U
	sec-Butylbenzene	135-98-8	µg/L	-	1.0 U
	Styrene	100-42-5	µg/L	-	1.0 U
	tert-Butylbenzene	98-06-6	µg/L	-	1.0 U
	Tetrachloroethene	127-18-4	µg/L	-	1.0 U
	Toluene	108-88-3	µg/L	640	1.0 U
	trans-1,2-Dichloroethene	156-60-5	µg/L	-	1.0 U
	trans-1,3-Dichloropropene	10061-02-6	µg/L	-	0.40 U
	Trichloroethene	79-01-6	µg/L	4.0	0.50 U
	Trichlorofluoromethane	75-69-4	µg/L	-	1.0 U
	Vinyl chloride	75-01-4	µg/L	0.29	0.020 U

Notes

- 1. BOLD** indicates analyte detections.
- Data qualifies are as follows:
U = The analyte was not detected at the reporting limit indicated
- Preliminary screening levels as defined in Table 2 of the Ecology opinion letter (Ecology, 2019).

Abbreviations:

µg/L = micrograms per liter

- = not analyzed

CAS = Chemical Abstracts Service

Ecology = Washington State Department of Ecology

VOCs = volatile organic compounds

Table 3: Groundwater Elevations
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	WCS North Zone ¹		Ground Surface Elevation	TOC Elevation	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet) ²
	Northing	Easting					
KMW-02R ²	205743.868	1273010.429	22.01	21.63	8/31/2017	9.58	12.05
					1/26/2018	7.56	14.07
					8/15/2018	9.96	11.67
					2/7/2019	9.17	12.46
					8/20/2019	10.78	10.85
					3/11/2020	NM	NM
					8/19/2020	10.33	11.30
					3/22/2021	7.93	13.70
					9/1/2021	10.26	11.37
					3/21/2022	7.06	14.57
					8/19/2022	9.30	12.33
KMW-03R ²	205538.065	1273156.594	21.99	21.54	8/31/2017	9.52	12.02
					1/26/2018	7.87	13.67
					8/15/2018	9.93	11.61
					2/7/2019	9.37	12.17
					8/20/2019	10.70	10.84
					3/11/2020	NM	NM
					8/19/2020	10.24	11.30
					3/22/2021	8.08	13.46
					9/1/2021	10.31	11.23
					3/21/2022	7.42	14.12
					8/19/2022	9.40	12.14
KMW-04 ²	205423.586	1273115.009	18.90	18.56	8/31/2017	6.63	11.93
					1/26/2018	5.35	13.21
					8/15/2018	7.06	11.50
					2/7/2019	6.60	11.96
					8/20/2019	7.89	10.67
					3/11/2020	5.91	12.65
					8/19/2020	7.45	11.11
					3/22/2021	5.39	13.17
					9/1/2021	7.43	11.13
					3/22/2022	4.72	13.84
					8/17/2022	6.51	12.05
KMW-06 ²	205525.215	1273039.239	20.16	19.80	8/31/2017	7.87	11.93
					1/26/2018	6.48	13.32
					8/15/2018	8.29	11.51
					2/7/2019	7.77	12.03
					8/20/2019	9.09	10.71
					3/11/2020	7.08	12.72
					8/19/2020	8.65	11.15
					3/22/2021	6.53	13.27
					9/1/2021	8.62	11.18
					3/22/2022	5.83	13.97
					8/16/2022	7.71	12.09

Table 3: Groundwater Elevations
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	WCS North Zone ¹		Ground Surface Elevation	TOC Elevation	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet) ²
	Northing	Easting					
KMW-07 ²	205713.659	1273033.950	22.00	21.63	8/31/2017	9.57	12.06
					1/26/2018	7.93	13.70
					8/15/2018	9.96	11.67
					2/7/2019	9.21	12.42
					8/20/2019	10.79	10.84
					3/11/2020	NM	NM
					8/19/2020	10.31	11.32
					3/22/2021	7.93	13.70
					9/1/2021	10.27	11.36
					3/21/2022	7.09	14.54
					8/19/2022	9.36	12.27
KMW-08 ²	205648.461	1273101.305	22.03	21.65	8/31/2017	9.59	12.06
					1/26/2018	7.72	13.93
					8/15/2018	10.00	11.65
					2/7/2019	9.31	12.34
					8/20/2019	10.80	10.85
					3/11/2020	NM	NM
					8/19/2020	10.33	11.32
					3/22/2021	8.06	13.59
					9/1/2021	10.33	11.32
					3/21/2022	7.24	14.41
					8/19/2022	9.56	12.09
KMW-09 ³	205508.919	1273025.542	18.60	18.14	8/31/2017	6.24	11.90
					1/26/2018	4.86	13.28
					8/15/2018	6.64	11.50
					2/7/2019	6.15	11.99
					8/20/2019	7.48	10.66
					3/11/2020	5.46	12.68
					8/19/2020	7.03	11.11
					3/22/2021	4.89	13.25
					9/1/2021	6.99	11.15
					3/22/2022	4.18	13.96
					8/16/2022	6.09	12.05
KMW-10 ³	205336.155	1272955.049	20.84	20.39	8/31/2017	8.61	11.78
					1/26/2018	7.51	12.88
					8/15/2018	9.01	11.38
					2/7/2019	8.65	11.74
					8/20/2019	9.89	10.50
					3/11/2020	7.98	12.41
					8/19/2020	9.41	10.98
					3/22/2021	7.42	12.97
					9/1/2021	9.38	11.01
					3/22/2022	6.81	13.58
					8/17/2022	8.49	11.90

Table 3: Groundwater Elevations
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	WCS North Zone ¹		Ground Surface Elevation	TOC Elevation	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet) ²
	Northing	Easting					
KMW-11 ⁴	205126.942	1272817.929	20.63	20.30	8/17/2022	8.67	11.63
KMW-12 ⁴	205094.501	1273344.644	18.50	18.25	8/16/2022	6.27	11.98

Notes

1. Coordinate System and Zone: Washington State Plane, North Zone Coordinates.
Horizontal Datum: NAD 83(91), North Zone, US feet.
Vertical Datum: NAVD88, US feet.
2. Survey completed on June 30, 2016, by Duane Hartman & Associates.
3. Survey completed on December 13, 2016, by Duane Hartman & Associates.
4. Survey completed on October 28, 2022, by True North Land Surveying, Inc.

Abbreviations

NAD 83 = North American Datum of 1983

NAVD88 = North American Vertical Datum of 1988

NM = not measured

TOC = top of casing

WCS = Washington Coordinate System

Table 4: Groundwater Parameters
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	Date	pH	SC	ORP	DO
			(ms/cm)	(mv)	(mg/L)
KMW-02R	8/31/2017	5.89	0.175	142.9	0.21
	1/26/2018	5.99	0.199	150.9	0.28
	8/16/2018	5.85	0.173	274	0.55
	2/8/2019	5.95	0.245	130.1	0.81
	8/20/2019	5.76	0.211	121	2.97
	3/11/2020	NM	NM	NM	NM
	8/19/2020	5.73	0.205	208.2	0.33
	3/24/2021	5.55	0.169	273.5	1.41
	9/1/2021	5.99	0.196	-330.9	1.01
	3/21/2022	6.05	0.180	144.7	0.15
KMW-03R	8/19/2022	5.72	209.700	202.9	1.21
	8/31/2017	7.07	0.477	-117.2	0.15
	1/26/2018	7.27	0.454	-102.2	0.19
	8/16/2018	7.03	0.378	112	0.47
	2/8/2019	6.97	0.582	-87	0.51
	8/20/2019	6.90	0.613	-47	2.19
	3/11/2020	NM	NM	NM	NM
	8/19/2020	6.56	0.411	-63.5	0.09
	3/22/2021	6.87	0.392	-61.7	0.59
	9/1/2021	6.97	0.311	-406.9	0.82
KMW-04	3/21/2022	7.22	0.600	2.4	0.20
	8/19/2022	7.03	337.400	-64.2	1.13
	8/31/2017	6.31	0.485	-92.0	0.07
	1/25/2018	6.40	0.276	-40.0	0.58
	8/16/2018	6.09	0.326	99.0	0.63
	2/7/2019	6.22	0.341	-74.0	0.62
	8/20/2019	6.26	0.352	-52.0	2.38
	3/11/2020	6.15	0.293	-51.0	0.42
	8/20/2020	6.10	0.241	-51.9	0.1
	3/23/2021	5.58	0.179	91.4	1.65
KMW-06	9/2/2021	6.15	0.192	-352.5	1.29
	3/22/2022	6.07	0.282	155.8	2.19
	8/17/2022	5.77	167.9	42.9	1.17
	8/31/2017	6.35	0.453	-90.3	0.10
	1/24/2018	6.56	0.314	-91.4	0.24
	8/16/2018	6.33	0.421	-39	0.37
	2/7/2019	6.18	0.635	-32	0.65
	8/19/2019	6.32	0.49	-66	2.38
	3/11/2020	5.7	0.9	27.1	2.45
	8/20/2020	6.11	0.631	-59.9	0.14
KMW-06	3/23/2021	5.82	0.836	-14	0.67
	9/2/2021	6.34	0.705	-372.3	0.80
	3/22/2022	6.49	0.47	54.8	0.16
	8/16/2022	6.09	0.611	-59.1	1.07

Table 4: Groundwater Parameters
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	Date	pH	SC	ORP	DO
			(ms/cm)	(mv)	(mg/L)
KMW-07	8/31/2017	6.02	0.283	56.2	0.15
	1/26/2018	6.32	0.280	56.1	0.32
	8/16/2018	6.02	0.211	268	0.6
	2/8/2019	6.23	0.318	51.1	0.52
	8/20/2019	5.96	0.249	106	2.93
	3/11/2020	NM	NM	NM	NM
	8/19/2020	5.81	0.224	94	0.12
	3/24/2021	5.9	0.221	130.8	0.67
	9/1/2021	6.15	0.242	-383.6	0.77
	3/21/2022	6.08	0.327	137.9	0.13
	8/19/2022	5.93	278.100	76.9	1.17
KMW-08	8/31/2017	6.15	0.177	1.90	0.10
	1/26/2018	5.98	0.526	32.9	0.50
	8/16/2018	5.95	0.211	248	0.58
	2/8/2019	6.05	0.25	91.4	0.74
	8/20/2019	5.58	2.508	133.7	2.26
	3/11/2020	NM	NM	NM	NM
	8/19/2020	4.99	0.176	195.7	0.14
	3/22/2021	5.49	0.203	94.1	1.27
	9/1/2021	5.73	0.167	-339.7	1.03
	3/21/2022	6.07	0.680	109.7	0.21
	8/19/2022	5.82	0.2446	119.2	1.20
KMW-09	8/31/2017	6.32	0.415	-95.1	0.21
	1/24/2018	6.56	0.396	-79.5	0.40
	8/16/2018	6.35	0.387	-24	0.47
	2/7/2019	6.42	0.400	-69	0.57
	8/20/2019	6.4	0.314	-47	3.05
	3/11/2020	6.16	0.512	-55.6	0.35
	8/20/2020	6.08	0.615	-63.4	0.07
	3/23/2021	6.21	0.474	-45.8	0.59
	9/2/2021	6.39	0.426	-413.3	0.85
	3/22/2022	6.47	0.368	55.2	0.09
	8/16/2022	6.19	0.3732	-41.3	1.07
KMW-10	8/31/2017	6.21	0.567	-86.3	0.15
	1/25/2018	6.46	0.656	-69.4	0.28
	8/16/2018	6.25	0.416	-15	0.46
	2/7/2019	6.53	0.43	-82	0.49
	8/19/2019	6.26	0.612	-67	3.26
	3/11/2020	6.39	0.542	-63	0.37
	8/20/2020	6.12	0.551	-65.7	0.07
	3/23/2021	6.24	0.654	-63.7	0.61
	9/2/2021	6.38	0.682	-394.2	0.68
	3/22/2022	6.57	0.534	4.2	0.09
	8/17/2022	6.31	0.538	-67.8	1.07

Table 4: Groundwater Parameters
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Well ID	Date	pH	SC	ORP	DO
			(ms/cm)	(mv)	(mg/L)
KMW-11	8/17/2022	6.38	0.1616	-27.5	1.24
KMW-12	8/16/2022	6.22	0.4676	-36.9	1.08
BFK-926	8/17/2022	6.23	0.4301	-26.1	1.75
BFK-927	8/16/2022	6.17	0.581	-45.5	1.05

Abbreviations

DO = dissolved oxygen

mg/L = milligrams per liter

ms/cm = millisiemens per centimeter

mv = millivolts

NM = not measured

ORP = oxidation reduction potential

SC = specific conductivity

Table 5: Groundwater Analytical Results^{1, 2, 3}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ⁴	BKF926	BKF926	BKF927	BKF927	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-02R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	KMW-03R	
					09/02/21	08/17/22	09/02/21	08/16/22	09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/24/21	09/01/21	03/21/22	08/19/22	09/01/17	01/26/18	08/16/18	08/16/18	02/08/19	08/20/19	08/19/20	03/22/21	09/01/21	03/21/22	08/19/22
					BKF926-090221	BKF-926-08172022	BKF-927-090221	BKF-927-08162022	KMW-02R-9-1-17	KMW-02R-012618	KMW-02R-081618	KMW-02R-020819	KMW-02R-082019	KMW-02R-081920	KMW-02R-032421	KMW-02R-090121	KMW-02R-032122	KMW-02R-081922	KMW-03R-9-1-17	KMW-03R-012618	KMW-03R-081618	KMW-03R-081618	KMW-03R-020819	KMW-03R-082019	KMW-03R-081920	KMW-03R-032221	KMW-03R-090121	KMW-03R-032122	KMW-03R-081922
					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
SVOCs	1-Methylnaphthalene	90-12-0	µg/L	-	-	0.014 U	-	0.014 U	0.099 U	0.11 U	-	-	-	0.0090 U	-	-	0.0089 U	0.014 U	0.098 U	0.11 U	-	-	-	0.0090 U	-	-	0.0089 U	0.014 U	
	2-Methylnaphthalene	91-57-6	µg/L	-	-	0.019 U	-	0.019 U	0.099 U	0.11 U	-	-	-	0.0096 U	-	-	0.01 U	0.019 U	0.098 U	0.11 U	-	-	-	0.0096 U	-	-	0.01 U	0.019 U	
	Acenaphthene	83-32-9	µg/L	-	-	0.019 U	-	0.22	0.099 U	0.11 U	0.0034 U	0.0034 U	0.0074 U	0.0054 U	-	-	0.0052 U	0.019 U	0.22	0.22	0.27	0.27	0.14	0.15	0.17	-	-	0.12	0.098
	Acenaphthylene	208-96-8	µg/L	-	-	0.016 U	-	0.016 U	0.099 U	0.11 U	0.0038 U	0.0038 U	0.0066 U	0.0064 U	-	-	0.0045 U	0.016 U	0.098 U	0.11 U	0.0038 U	0.0038 U	1.7	0.0066 U	0.0064 U	-	-	0.0045 U	0.016 U
	Anthracene	120-12-7	µg/L	-	-	0.012 U	-	0.012 U	0.099 U	0.11 U	0.0034 U	0.0034 U	0.0046 U	0.0056 U	-	-	0.01 U	0.012 U	0.098 U	0.11 U	0.0034 U	0.0034 U	0.0034 U	0.0046 U	0.0056 U	-	-	0.026	0.012 U
	Benzo(a)anthracene	56-55-3	µg/L	-	0.0045 U	0.019 U	0.0045 U	0.019 U	0.0099 U	0.011 U	0.0088 U	0.0088 U	0.014 U	0.0090 U	0.0090 U	0.0045 U	0.0045 U	0.019 U	0.0098 U	0.011 U	0.0088 U	0.0088 U	0.014 U	0.0090 U	0.0096 U	0.0045 U	0.0045 U	0.019 U	
	Benzo(a)pyrene	50-32-8	µg/L	-	0.012 U	0.011 U	0.012 U	0.011 U	0.0099 U	0.011 U	0.0034 U	0.0034 U	0.0056 U	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U	0.0098 U	0.011 U	0.0034 U	0.0034 U	0.0034 U	0.0056 U	0.011 U	0.0056 U	0.012 U	0.012 U	0.011 U
	Benzo(B&K)fluoranthene	B(BK)F	µg/L	-	-	-	-	-	0.0099 U	0.011 U	-	-	-	-	-	-	-	-	0.0098 U	0.011 U	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	205-99-2	µg/L	-	0.0072 U	0.016 U	0.0072 U	0.016 U	0.0099 U	0.011 U	0.0034 U	0.0034 U	0.0042 U	0.0064 U	0.0064 U	0.0072 U	0.0072 U	0.016 U	0.0098 U	0.011 U	0.0034 U	0.0034 U	0.0034 U	0.0042 U	0.0064 U	0.0090 U	0.0072 U	0.016 U	
	Benzo(g,h,i)perylene	191-24-2	µg/L	-	-	0.028 U	-	0.028 U	0.0099 U	0.011 U	0.0074 U	0.0074 U	0.011 U	0.040 U	-	-	0.017 U	0.028 U	0.0098 U	0.011 U	0.0074 U	0.0074 U	0.0074 U	0.011 U	0.040 U	-	-	0.017 U	0.028 U
	Benzo(k)fluoranthene	207-08-9	µg/L	-	0.0075 U	0.014 U	0.0075 U	0.014 U	-	-	0.0046 U	0.0046 U	0.0070 U	0.0076 U	0.0076 U	0.0075 U	0.0075 U	0.014 U	-	-	0.0046 U	0.0046 U	0.0046 U	0.0070 U	0.0076 U	0.0096 U	0.0075 U	0.0075 U	0.014 U
	Chrysene	218-01-9	µg/L	-	0.0071 U	0.016 U	0.0071 U	0.016 U	0.0099 U	0.011 U	0.0032 U	0.0032 U	0.0048 U	0.0062 U	0.0062 U	0.0071 U	0.0071 U	0.016 U	0.0098 U	0.011 U	0.0032 U	0.0032 U	0.0032 U	0.0048 U	0.0062 U	0.012 U	0.0071 U	0.0071 U	0.016 U
	Dibenzo(a,h)anthracene	53-70-3	µg/L	-	0.019 U	0.028 U	0.019 U	0.028 U	0.0099 U	0.011 U	0.015 U	0.015 U	0.01 U	0.018 U	0.018 U	0.019 U	0.019 U	0.028 U	0.0098 U	0.011 U	0.015 U	0.015 U	0.01 U	0.018 U	0.030 U	0.019 U	0.019 U	0.028 U	
	Fluoranthene	206-44-0	µg/L	-	-	0.028 U	-	0.028 U	0.099 U	0.11 U	0.0046 U	0.0046 U	0.0058 U	0.0090 U	-	-	0.0078 U	0.028 U	0.098 U	0.11 U	0.0046 U	0.0046 U	0.0046 U	0.0058 U	0.0090 U	-	-	0.0078 U	0.028 U
	Fluorene	86-73-7	µg/L	-	-	0.013 U	-	0.059	0.099 U	0.11 U	0.0062 U	0.0062 U	0.0088 U	0.0062 U	-	-	0.0061 U	0.013 U	0.29	0.18	0.18	0.17	0.099	0.11	0.066	-	-	0.050	0.051
	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	-	0.015 U	0.022 U	0.015 U	0.022 U	0.0099 U	0.011 U	0.0094 U	0.0094 U	0.0098 U	0.020 U	0.020 U	0.015 U	0.015 U	0.022 U	0.0098 U	0.011 U	0.0094 U	0.0094 U	0.0098 U	0.020 U	0.020 U	0.015 U	0.015 U	0.022 U	
	Naphthalene	91-20-3	µg/L	160	-	0.019 U	-	2.5	0.099 U	0.11 U	0.0028 U	0.0028 U	0.01 U	0.014 U	-	-	0.011 U	0.019 U	0.098 U	0.11 U	0.078	0.0028 U	0.0028 U	0.01 U	0.014 U	-	-	0.011 U	0.019 U
	Phenanthrene	85-01-8	µg/L	-	-	0.026 U	-	0.026 U	0.099 U	0.11 U	0.013 U	0.013 U	0.012 U	0.011 U	-	-	0.0090 U	0.026 U	0.16	0.11 U	0.074	0.066	0.041	0.012 U	0.011 U	-	-	0.23	0.21
	Pyrene	129-00-0	µg/L	-	-	0.026 U	-	0.026 U	0.099 U	0.11 U	0.0036 U	0.0036 U	0.011 U	0.0062 U	-	-	0.0064 U	0.026 U	0.098 U	0.11 U	0.0036 U	0.0036 U	0.0036 U	0.011 U	0.0062 U	-	-	0.0064 U	0.026 U
TPH	Gasoline Range Organics	GRO	µg/L	800	29 U	17 U	29 U	24,000	100 U	100 U	14 U	14 U	20 U	20 U	25 U	17 U	17 U	17 U	270	150	290	380	140	170	140	25 U	17 U	17 U	17 U
	Diesel Range Organics	DRO	µg/L	500	66	920	120	1,800	270 U	260 U	5.4 U	7.8 U	5.4 U	7.0 U	17 U	10 U	10 U	10 U	330	510	350	450	1,700	2,800	700	480	390	410	290
VOCs	Lube Oil	LUBE OIL	µg/L	500	28 U	38 U	28 U	38 U	430 U	410 U	52 U	19 U	52 U	49 U	72 U	38 U	38 U	38 U	430 U	410 U	52 U	52 U	19 U	52 U	49 U	72 U	38 U	38 U	38 U
	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	-	0.064 U	0.094 U	0.064 U	0.094 U	0.20 U	0.20 U	0.069 U	0.069 U	0.038 U	0.037 U	0.037 U	0.064 U	0.085 U	0.094 U	0.20 U	0.20 U	0.069 U	0.069 U	0.069 U	0.038 U	0.037 U	0.037 U	0.064 U	0.085 U	0.094 U
	1,1,1-Trichloroethane	71-55-6	µg/L	-	0.024 U	0.0070 U	0.024 U	0.0070 U	0.20 U	0.20 U	0.068 U	0.068 U	0.028 U	0.040 U	0.040 U	0.024 U	0.0056 U	0.0070 U	0.20 U	0.20 U	0.068 U	0.068 U	0.068 U	0.028 U	0.040 U	0.040 U	0.024 U	0.0056 U	0.0070 U
	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	-	0.051 U	0.095 U	0.051 U	0.095 U	0.20 U	0.20 U	0.058 U	0.058 U	0.049 U	0.041 U	0.041 U	0.051 U	0.10 U	0.095 U	0.20 U	0.20 U	0.058 U	0.058 U	0.058 U	0.049 U	0.041 U	0.041 U	0.051 U	0.10 U	0.095 U
	1,1,2-Trichloroethane	79-00-5	µg/L	-	0.051 U	0.087 U	0.051 U	0.087 U	0.20 U	0.20 U	0.18 U	0.18 U	0.043 U	0.050 U	0.050 U	0.051 U	0.014 U	0.087 U	0.20 U	0.20 U	0.18 U	0.18 U	0.18 U	0.043 U	0.050 U	0.050 U	0.051 U	0.014 U	0.087 U
	1,1-Dichloroethane	75-34-3	µg/L	-	0.025 U	0.0061 U																							

Table 5: Groundwater Analytical Results^{1, 2, 3}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ¹	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-04	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06	KMW-06		
					08/31/17	01/25/18	08/16/18	02/07/19	08/20/19	03/11/20	03/11/20	08/20/20	03/23/21	09/02/21	03/22/22	08/17/22	08/31/17	01/24/18	08/16/18	02/07/19	08/19/19	03/11/20	08/20/20	03/23/21	03/23/21	09/02/21	03/22/22	08/16/22		
					KMW-04-8-31-17	KMW-04-012518	KMW-04-081618	KMW-04-020719	KMW-04-082019	KMW-04-031120	KMW-04-082020	KMW-04-032321	KMW-04-090221	KMW-04_2022022	KMW-04-08172022	KMW-06-8-31-17	KMW-06-012418	KMW-06-081618	KMW-06-020719	KMW-06-081919	KMW-06-031120	KMW-06-082020	KMW-06-032321	Duplicates 032321	KMW-06-090221	KMW-06_20220322	KMW-06-08162022			
					N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
VOCs (cont.)	Ethylbenzene	100-41-4	µg/L	700	4,300	4,700	2,600	2,800	6,700	3,000	3,300	6,400	1,500	5,300	460	2,200	0.27	0.20 U	0.039 U	0.039 U	0.032 U	0.032 U	0.022 U	0.036 UJ	0.036 UJ	0.040 U	0.0045 U	0.025 U		
	Hexachlorobutadiene	87-68-3	µg/L	-	20 U	50 U	0.094 U	0.94 U	5.0 U	0.050 U	0.050 U	5.6 U	0.75 U	0.92 U	0.37 U	0.16 U	0.20 U	0.20 U	0.094 U	0.094 U	0.050 U	0.050 U	0.056 U	0.075 UJ	0.075 UJ	0.37 U	0.089 U	0.16 U		
	Iodomethane	74-88-4	µg/L	-	200 U	250 U	-	-	-	-	-	-	-	-	-	-	2.0 U	1.0 U	-	-	-	-	-	-	-	-	-	-		
	Isopropylbenzene	98-82-8	µg/L	-	63	50 U	21	26	2.4 U	32	30	2.6 U	11	45	0.47 U	21	26	8.1	18	8.3	21	3.5	8.2	2.8 J	2.7 J	0.47 U	1.5	3.2		
	m,p-Xylene	1330-20-7	µg/L	1,600	7,800	12,000	6,400	6,100	19,000	7,500	8,200	17,000	4,100	16,000	1,700	6,900	1.6	0.42	0.066 U	0.066 U	0.074 U	0.074 U	0.25 U	0.033 UJ	0.033 UJ	0.11 U	0.020 U	0.048 U		
	Methyl tert-Butyl Ether (MTBE)	1634-04-4	µg/L	-	20 U	50 U	0.050 U	0.50 U	4.6 U	0.046 U	0.046 U	3.0 U	0.38 U	0.28 U	0.11 U	0.0045 U	0.20 U	0.20 U	0.050 U	0.050 U	0.046 U	0.046 U	0.030 U	0.038 UJ	0.038 UJ	0.11 U	0.0031 U	0.0045 U		
	Methylene chloride	75-09-2	µg/L	-	200 U	250 U	5.0 U	50 U	190 U	1.9 U	1.9 U	200 U	14 U	57 U	23 U	2.6 U	2.0 U	1.0 U	5.0 U	5.0 U	1.9 U	1.9 U	2.0 U	1.4 UJ	5.0 J	23 U	1.5 U	7.4 J		
	Naphthalene	91-20-3	µg/L	160	100 U	250 U	5.1	0.42 U	3.8 U	5.5	5.5	3.2 U	0.20 U	0.72 U	0.29 U	5.7	1.0 U	1.0 U	0.042 U	0.042 U	0.038 U	0.038 U	0.032 U	0.020 UJ	0.020 UJ	0.29 U	0.095 U	0.19 U		
	n-Butylbenzene	104-51-8	µg/L	-	20 U	50 U	-	-	-	-	-	-	-	-	-	-	2.3	1.0	-	-	-	-	-	-	-	-	-	-		
	n-Hexane	110-54-3	µg/L	-	-	-	4.3	0.46 U	3.9 U	7.7	7.4	57 U	1.2 U	1.7 U	0.68 U	0.12 U	-	-	0.046 U	0.046 U	0.039 U	0.039 U	0.57 U	0.12 UJ	0.12 UJ	0.68 U	0.065 U	0.12 U		
	n-Propylbenzene	103-65-1	µg/L	-	63	50 U	19	23	3.3 U	29	29	3.3 U	0.28 U	33	0.40 U	18	37	9.5	25	12	27	4.5	10	3.6 J	3.5 J	0.40 U	1.7	3.3		
	o-Xylene	95-47-6	µg/L	1,600	1,900	3,600	1,500	1,300	4,600	1,400	1,500	3,400	800	4,000	520	1,400	0.47	0.20 U	0.032 U	0.032 U	0.038 U	0.038 U	0.042 U	0.039 UJ	0.039 UJ	0.054 U	0.0088 U	0.019 U		
	sec-Butylbenzene	135-98-8	µg/L	-	20 U	50 U	1.4	0.34 U	2.3 U	1.6	1.6	2.4 U	0.23 U	0.92 U	0.37 U	0.090 U	3.7	1.2	2.6	1.2	2.3	0.023 U	1.1	0.023 UJ	0.023 UJ	0.37 U	0.029 U	0.090 U		
	Styrene	100-42-5	µg/L	-	20 U	50 U	0.061 U	0.61 U	2.8 U	0.028 U	0.028 U	3.2 U	0.73 U	3.0 U	1.2 U	0.071 U	0.20 U	0.20 U	0.061 U	0.061 U	0.028 U	0.028 U	0.032 U	0.073 UJ	0.073 UJ	1.2 U	0.049 U	0.071 U		
	tert-Butylbenzene	98-06-6	µg/L	-	20 U	50 U	0.049 U	0.49 U	1.4 U	0.014 U	0.014 U	3.0 U	0.16 U	1.5 U	0.62 U	0.076 U	0.36	0.20 U	0.049 U	0.049 U	0.014 U	0.014 U	0.030 U	0.016 UJ	0.016 UJ	0.62 U	0.038 U	0.076 U		
	Tetrachloroethene	127-18-4	µg/L	-	20 U	50 U	0.076 U	0.76 U	8.8 U	0.088 U	0.088 U	5.6 U	0.74 U	0.24 U	0.098 U	0.077 U	0.20 U	0.20 U	0.076 U	0.076 U	0.088 U	0.088 U	0.056 U	0.074 UJ	0.074 UJ	0.098 U	0.017 U	0.077 U		
	Toluene	108-88-3	µg/L	640	980	5,500	610	190	1,500	380	360	810	240	1,300	69	220	1.0 U	1.0 U	0.046 U	0.046 U	0.033 U	0.033 U	0.030 U	0.028 UJ	0.028 UJ	0.044 U	0.021 U	0.040 U		
	trans-1,2-Dichloroethene	156-60-5	µg/L	-	20 U	50 U	0.080 U	0.80 U	4.1 U	0.041 U	0.041 U	3.7 U	1.7 U	0.52 U	0.21 U	0.035 U	0.20 U	0.20 U	0.080 U	0.080 U	0.041 U	0.041 U	0.037 U	0.17 UJ	0.17 UJ	0.21 U	0.019 U	0.035 U		
	trans-1,3-Dichloropropene	10061-02-6	µg/L	-	20 U	50 U	0.079 U	0.79 U	4.9 U	0.049 U	0.049 U	5.0 U	0.59 U	1.2 U	0.48 U	0.12 U	0.20 U	0.20 U	0.079 U	0.079 U	0.049 U	0.049 U	0.050 U	0.059 UJ	0.059 UJ	0.48 U	0.093 U	0.12 U		
	Trichloroethene	79-01-6	µg/L	4.0	20 U	50 U	0.046 U	0.46 U	8.4 U	0.084 U	0.084 U	8.5 U	0.46 U	0.21 U	0.084 U	0.045 U	0.20 U	0.20 U	0.046 U	0.046 U	0.084 U	0.084 U	0.085 U	0.046 UJ	0.046 UJ	0.084 U	0.0090 U	0.045 U		
	Trichlorofluoromethane	75-69-4	µg/L	-	20 U	50 U	0.038 U	0.38 U	5.1 U	0.051 U	0.051 U	3.7 U	0.80 U	1.4 U	0.57 U	0.19 U	0.20 U	0.20 U	0.038 U	0.038 U	0.051 U	0.051 U	0.037 U	0.080 UJ	0.080 UJ	0.57 U	0.082 U	0.19 U		
	Vinyl acetate	108-05-4	µg/L	-	100 U	250 U	-	-	-	-	-	-	-	-	-	-	1.0 U	1.0 U	-	-	-	-	-	-	-	-	-	-		
	Vinyl chloride	75-01-4	µg/L	0.29	20 U	50 U	0.042 U	0.42 U	6.3 U	0.063 U	0.063 U	6.7 U	1.1 U	0.13 U	0.054 U	0.018 U	0.20 U	0.20 U	0.042 U	0.042 U	0.063 U	0.063 U	0.067 U	0.11 UJ	0.11 UJ	0.054 U	0.012 U	0.018 U		

Table 5: Groundwater Analytical Results^{1, 2, 3}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ⁴	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08
					09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/24/21	09/01/21	03/21/22	08/19/22	09/01/17	01/26/18	08/16/18	02/08/19	08/19/20	03/22/21	09/01/21	03/21/22	08/19/22			
					KMW-07-9-1-17	KMW-07-012618	KMW-07-081618	KMW-07-020819	KMW-07-082019	KMW-07-081920	KMW-07-032421	KMW-07-090121	KMW-07-032122	KMW-07-081922	KMW-08-9-1-17	KMW-08-012618	KMW-08-081618	KMW-08-020819	KMW-08-081920	KMW-08-032221	KMW-08-090121	KMW-08-032122	KMW-08-081922			
					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PAHs	Benzo(a)anthracene	56-55-3	µg/L	-	0.00990 U	0.0110 U	0.00880 U	0.00880 U	0.0140 U	0.00900 U	0.00900 U	0.00450 U	0.00450 U	0.0190 U	0.0120	0.0180	0.00880 U	0.00880 U	0.0140 U	0.00900 U	0.00960 U	0.0260	0.0530	0.0190 U		
	Benzo(a)pyrene	50-32-8	µg/L	-	0.00990 U	0.0110 U	0.00340 U	0.00340 U	0.00560 U	0.0110 U	0.0110 U	0.0120 U	0.0120 U	0.0110 U	0.0100 U	0.0150	0.00340 U	0.00340 U	0.00560 U	0.0110 U	0.00560 U	0.0610	0.160	0.0410		
	Benzo(b)fluoranthene	205-99-2	µg/L	-	0.00990 U	0.0110 U	0.00340 U	0.00340 U	0.00420 U	0.00640 U	0.00640 U	0.00720 U	0.00720 U	0.0160 U	0.0100 U	0.0180	0.00340 U	0.00340 U	0.00420 U	0.00640 U	0.00900 U	0.0590	0.160	0.0450		
	Benzo(k)fluoranthene	207-08-9	µg/L	-	-	-	0.00460 U	0.00460 U	0.00700 U	0.00760 U	0.00760 U	0.00750 U	0.00750 U	0.0140 U	-	-	0.00460 U	0.00460 U	0.00700 U	0.00760 U	0.00960 U	0.0210	0.0400	0.0140 U		
	Chrysene	218-01-9	µg/L	-	0.00990 U	0.0110 U	0.00320 U	0.00320 U	0.00480 U	0.00620 U	0.00620 U	0.00710 U	0.00710 U	0.0160 U	0.0120	0.0280	0.00320 U	0.00320 U	0.00480 U	0.00620 U	0.0120 U	0.0260	0.0650	0.0160 U		
	Dibenzo(a,h)anthracene	53-70-3	µg/L	-	0.00990 U	0.0110 U	0.0150 U	0.0150 U	0.0100 U	0.0180 U	0.0180 U	0.0190 U	0.0190 U	0.0280 U	0.0100 U	0.0120 U	0.0150 U	0.0150 U	0.0100 U	0.0180 U	0.0300 U	0.0190 U	0.0230	0.0280 U		
	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	-	0.00990 U	0.0110 U	0.00940 U	0.00940 U	0.00980 U	0.0200 U	0.0200 U	0.0150 U	0.0150 U	0.0220 U	0.0100 U	0.0120 U	0.00940 U	0.00940 U	0.00980 U	0.0200 U	0.0200 U	0.0430	0.170	0.0480		
	Total cPAH TEQ	cPAH TEQ	µg/L	0.20	0.00698	0.00776	0.0453	0.0302	0.0302	0.0302	0.0302	0.0151	0.00870	0.0105	0.00782	0.0201	0.0453	0.0302	0.0302	0.0302	0.0302	0.0772	0.205	0.0534		
Dissolved Gases	Carbon dioxide	124-38-9	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Ethane	74-84-0	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Ethene	74-85-1	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Methane	74-82-8	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Dissolved Metals	Dissolved Aluminum	7429-90-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Dissolved Arsenic	7440-38-2	µg/L	5.0	3.00 U	-	-	-	-	-	-	-	-	3.00 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Barium	7440-39-3	µg/L	-	25.0 U	-	-	-	-	-	-	-	-	25.0 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Cadmium	7440-43-9	µg/L	-	4.00 U	-	-	-	-	-	-	-	-	4.00 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Calcium	7440-70-2	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Dissolved Chromium	7440-47-3	µg/L	100	10.0 U	-	-	-	-	-	-	-	-	10.0 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Iron	7439-89-6	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Dissolved Lead	7439-92-1	µg/L	15	1.00 U	-	-	-	-	-	-	-	-	1.00 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Magnesium	7439-95-4	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Dissolved Manganese	7439-96-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Dissolved Mercury	7439-97-6	µg/L	2.0	0.500 U	-	-	-	-	-	-	-	-	0.500 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Selenium	7782-49-2	µg/L	-	5.00 U	-	-	-	-	-	-	-	-	5.00 U	-	-	-	-	-	-	-	-	-	-		
Total Metals	Dissolved Silver	7440-22-4	µg/L	-	10.0 U	-	-	-	-	-	-	-	-	10.0 U	-	-	-	-	-	-	-	-	-	-		
	Dissolved Sodium	7440-23-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Aluminum	7429-90-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Arsenic	7440-38-2	µg/L	5.0	3.30 U	3.30 U	0.0710 U	0.0710 U	0.0710 U	0.120 U	0.130 U	0.130 U	0.0780 U	0.0780 U	3.30 U	3.30 U	0.0710 U	0.0710 U	0.710 U	0.120 U	0.130 U	0.130 U	0.0780 U	0.0780 U		
	Barium	7440-39-3	µg/L	-	28.0 U	28.0 U	-	-	-	4.21	-	-	-	-	28.0 U	45.0	-	-	-	14.5	-	-	-	-		
	Cadmium	7440-43-9	µg/L	-	4.40 U	4.40 U	-	-	-	0.0280 U	-	-	-	-	4.40 U	4.40 U	-	-	-	0.0280 U	-	-	-	-		
	Calcium	7440-70-2	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Chromium	7440-47-3	µg/L	100	11.0 U	11.0 U	0.180 U	0.180 U	0.180 U	0.120 U	0.0830 U	0.0830 U	0.280 U	0.280 U	11.0 U	11.0 U	0.180 U	0.180 U	1.07	0.120 U	0.0830 U	0.0830 U	1.03	0.280 U		
	Copper	7440-50-8	µg/L	640	-	-	0.670 U	0.670 U	0.670 U	0.150 U	0.380 U	0.380 U	0.160 U	0.160 U	-	-	0.670 U	0.670 U	6.70 U	-	0.380 U	0.380 U	12.2	0.160 U		
	Iron	7439-89-6	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,800	-	-	-		
	Lead	7439-92-1	µg/L	15	1.10 U	1.10 U	0.120 U	0.120 U	0.120 U	0.0420 U	0.0120 U	0.0120 U	0.0570 U	0.0570 U	1.10 U	1.10 U	0.120 U	0.120 U	1.20 U	0.0420 U	0.0120 U	0.0120 U	1.89	0.0570 U		
	Magnesium	7439-95-4	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Manganese	7439-96-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184	-	-	-		
	Mercury	7439-97-6	µg/L	2.0	0.500 U	0.500 U	0.0790 U	0.0790 U	0.0790 U	0.0570 U	0.0280 U	0.0280 U	0.0430 U	0.0430 U	0.500 U	0.500 U	0.0790 U	0.0790 U	0.790 U	0.0570 U	0.0280 U	0.0280 U	0.0430 U	0.0430 U		
	Nickel	7440-02-0	µg/L	100	-	-	0.130 U	1.36	1.22	1.15	1.77	1.31	3.28	0.0510 U	-	-	1.11	1.99	25.9	4.26	7.08	1.70	10.0	0.0510 U		
	Selenium	7782-49-2	µg/L	-	5.60 U	5.60 U	-	-	-	0.120 U	-	-	-	-	5.60 U	5.60 U	-	-	-	0.120 U	-	-	-	-		
	Silver	7440-22-4	µg/L	-	11.0 U	11.0 U	-	-	-	0.0940 U	-	-	-	-	11.0 U	11.0 U	-	-	-	0.0940 U	-	-	-	-		
	Sodium	7440-23-5	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Zinc	7440-66-6	µg/L	4,800	-	-	0.260 U	0.260 U	0.260 U	-	0.340 U	0.340 U	0.240 U	0.240 U	-	-	0.260 U	10.1	8.91	-	306	49.7	470	84.8		
Misc	Biochemical oxygen demand	GIS-110-002	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Chemical Oxygen Demand	GIS-110-004	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Total Hardness (CaCO ₃)	T-Hardness	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Total Alkalinity	GIS-210-006	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Total Organic Carbon	GIS-110-012	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Nitrate	14797-55-8	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Sulfate	14808-79-8	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Volatile Fatty Acids (Acetic)	64-19-7	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Table 5: Groundwater Analytical Results^{1, 2, 3}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level ⁴	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08
					09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/24/21	09/01/21	03/21/22	08/19/22	09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/22/21	09/01/21	03/21/22	08/19/22
					KMW-07-9-1-17	KMW-07-012618	KMW-07-081618	KMW-7-020819	KMW-07-082019	KMW-07-081920	KMW-07-032421	KMW-07-090121	KMW-07-032122	KMW-07-081922	KMW-08-9-1-17	KMW-08-012618	KMW-08-081618	KMW-08-020819	KMW-08-082019	KMW-08-081920	KMW-08-032221	KMW-08-090121	KMW-08-032122	KMW-08-081922
					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	1-Methylnaphthalene	90-12-0	µg/L	-	0.099 U	0.11 U	-	-	-	0.0090 U	-	-	0.0089 U	0.014 U	0.10 U	0.12 U	-	-	-	0.0090 U	-	-	0.0089 U	0.014 U
	2-Methylnaphthalene	91-57-6	µg/L	-	0.099 U	0.11 U	-	-	-	0.0096 U	-	-	0.01 U	0.019 U	0.10 U	0.12 U	-	-	-	0.0096 U	-	-	0.01 U	0.019 U
	Acenaphthene	83-32-9	µg/L	-	0.099 U	0.11 U	0.0034 U	0.0034 U	0.0074 U	0.0054 U	-	-	0.0052 U	0.019 U	0.18	0.29	0.11	0.15	0.0074 U	0.064	-	-	0.028	0.019 U
	Acenaphthylene	208-96-8	µg/L	-	0.099 U	0.11 U	0.0038 U	0.0038 U	0.0066 U	0.0064 U	-	-	0.0045 U	0.016 U	0.10 U	0.12 U	0.0038 U	0.0038 U	0.0066 U	0.0064 U	-	-	0.040	0.016 U
	Anthracene	120-12-7	µg/L	-	0.099 U	0.11	0.0034 U	0.0034 U	0.0046 U	0.0056 U	-	-	0.01 U	0.012 U	0.10 U	0.13	0.16	0.095	0.053	0.11	-	-	0.048	0.012 U
	Benzo(a)anthracene	56-55-3	µg/L	-	0.0099 U	0.011 U	0.0088 U	0.0088 U	0.014 U	0.0090 U	0.0090 U	0.0045 U	0.0045 U	0.019 U	0.012	0.018	0.0088 U	0.0088 U	0.014 U	0.0090 U	0.0096 U	0.026	0.053	0.019 U
	Benzo(a)pyrene	50-32-8	µg/L	-	0.0099 U	0.011 U	0.0034 U	0.0034 U	0.0056 U	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U	0.01 U	0.015	0.0034 U	0.0034 U	0.0056 U	0.011 U	0.0056 U	0.061	0.16	0.041
	Benzo(B&K)fluoranthene	B(BK)F	µg/L	-	0.0099 U	0.011 U	-	-	-	-	-	-	-	-	0.01 U	0.012 U	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	205-99-2	µg/L	-	0.0099 U	0.011 U	0.0034 U	0.0034 U	0.0042 U	0.0064 U	0.0064 U	0.0072 U	0.0072 U	0.016 U	0.01 U	0.018	0.0034 U	0.0034 U	0.0042 U	0.0064 U	0.0090 U	0.059	0.16	0.045
	Benzo(g,h,i)perylene	191-24-2	µg/L	-	0.0099 U	0.011 U	0.0074 U	0.0074 U	0.011 U	0.040 U	-	-	0.017 U	0.028 U	0.01 U	0.012 U	0.0074 U	0.0074 U	0.011 U	0.040 U	-	-	0.24	0.028 U
	Benzo(k)fluoranthene	207-08-9	µg/L	-	-	-	0.0046 U	0.0046 U	0.0070 U	0.0076 U	0.0076 U	0.0075 U	0.0075 U	0.014 U	-	-	0.0046 U	0.0046 U	0.0070 U	0.0076 U	0.0096 U	0.021	0.040	0.014 U
	Chrysene	218-01-9	µg/L	-	0.0099 U	0.011 U	0.0032 U	0.0032 U	0.0048 U	0.0062 U	0.0062 U	0.0071 U	0.0071 U	0.016 U	0.012	0.028	0.0032 U	0.0032 U	0.0048 U	0.0062 U	0.012 U	0.026	0.065	0.016 U
	Dibenzo(a,h)anthracene	53-70-3	µg/L	-	0.0099 U	0.011 U	0.015 U	0.015 U	0.01 U	0.018 U	0.018 U	0.019 U	0.019 U	0.028 U	0.01 U	0.012 U	0.015 U	0.015 U	0.01 U	0.018 U	0.030 U	0.019 U	0.023	0.028 U
	Fluoranthene	206-44-0	µg/L	-	0.099 U	0.11 U	0.0046 U	0.0046 U	0.0058 U	0.0090 U	-	-	0.0078 U	0.028 U	0.11	0.20	0.24	0.14	0.096	0.13	-	-	0.12	0.093
	Fluorene	86-73-7	µg/L	-	0.099 U	0.11 U	0.0062 U	0.0062 U	0.0088 U	0.0062 U	-	-	0.0061 U	0.013 U	0.29	0.33	0.34	0.26	0.044	0.12	-	-	0.041	0.043
	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	-	0.0099 U	0.011 U	0.0094 U	0.0094 U	0.0098 U	0.020 U	0.020 U	0.015 U	0.015 U	0.022 U	0.01 U	0.012 U	0.0094 U	0.0094 U	0.0098 U	0.020 U	0.020 U	0.043	0.17	0.048
	Naphthalene	91-20-3	µg/L	160	0.099 U	0.11 U	0.0028 U	0.0028 U	0.01 U	0.014 U	-	-	0.011 U	0.019 U	0.10 U	0.12 U	0.0028 U	0.0028 U	0.01 U	0.014 U	-	-	0.011 U	0.019 U
	Phenanthrene	85-01-8	µg/L	-	0.099 U	0.11 U	0.013 U	0.013 U	0.012 U	0.011 U	-	-	0.0090 U	0.026 U	0.10 U	0.12 U	0.013 U	0.013 U	0.012 U	0.011 U	-	-	0.0090 U	0.026 U
	Pyrene	129-00-0	µg/L	-	0.099 U	0.11 U	0.0036 U	0.0036 U	0.011 U	0.0062 U	-	-	0.0064 U	0.026 U	0.10 U	0.22	0.23	0.20	0.11	0.14	-	-	0.15	0.13
TPH	Gasoline Range Organics	GRO	µg/L	800	100 U	100 U	14 U	14 U	20 U	20 U	25 U	17 U	17 U	17 U	130	120	230	120	20 U	20 U	25 U	17 U	110	17 U
	Diesel Range Organics	DRO	µg/L	500	280 U	260 U	5.4 U	7.8 U	5.4 U	7.0 U	17 U	10 U	240	97	300 U	450	160	440	170	110	410	130	1,800	280
	Lube Oil	LUBE OIL	µg/L	500	450 U	410 U	52 U	19 U	52 U	49 U	72 U	38 U	38 U	38 U	480 U	410 U	52 U	19 U	52 U	49 U	72 U	38 U	980	38 U
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	-	0.20 U	0.20 U	0.069 U	0.069 U	0.038 U	0.037 U	0.037 U	0.064 U	0.085 U	0.094 U	0.20 U	0.20 U	0.069 U	0.069 U	0.038 U	0.037 U	0.037 U	0.064 U	0.085 U	0.094 U
	1,1,1-Trichloroethane	71-55-6	µg/L	-	0.20 U	0.20 U	0.068 U	0.068 U	0.028 U	0.040 U	0.040 U	0.024 U	0.0056 U	0.0070 U	0.20 U	0.20 U	0.068 U	0.068 U	0.028 U	0.040 U	0.040 U	0.024 U	0.0056 U	0.0070 U
	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	-	0.20 U	0.20 U	0.058 U	0.058 U	0.049 U	0.041 U	0.041 U	0.051 U	0.10 U	0.095 U	0.20 U	0.20 U	0.058 U	0.058 U	0.049 U	0.041 U	0.041 U	0.051 U	0.10 U	0.095 U
	1,1,2-Trichloroethane	79-00-5	µg/L	-	0.20 U	0.20 U	0.18 U	0.18 U	0.043 U	0.050 U	0.050 U	0.051 U	0.014 U	0.087 U	0.20 U	0.20 U	0.18 U	0.18 U	0.043 U	0.050 U	0.050 U	0.051 U	0.014 U	0.087 U
	1,1-Dichloroethane	75-34-3	µg/L	-	0.20 U	0.20 U	0.047 U	0.047 U	0.047 U	0.043 U	0.043 U	0.025 U	0.0073 U	0.0061 U	0.20 U	0.20 U	0.047 U	0.047 U	0.047 U	0.043 U	0.043 U	0.025 U	0.0073 U	0.0061 U
	1,1-Dichloroethene	75-35-4	µg/L	-	0.20 U	0.20 U	0.088 U	0.088 U	0.080 U	0.058 U	0.058 U	0.013 U	0.017 U	0.034 U	0.20 U	0.20 U	0.088 U	0.088 U	0.080 U	0.058 U	0.058 U	0.013 U	0.017 U	0.034 U
	1,1-Dichloropropene	563-58-6	µg/L	-	0.20 U	0.20 U	0.044 U	0.044 U	0.023 U	0.017 U	0.017 U	0.057 U	0.10 U	0.12 U	0.20 U	0.20 U	0.044 U	0.044 U	0.023 U	0.017 U	0.017 U	0.057 U	0.10 U	0.12 U
	1,2,3-Trichlorobenzene	87-61-6	µg/L	-	0.20 U	0.20 U	0.037 U	0.037 U	0.034 U	0.033 U	0.033 U	0.076 U	0.18 U	0.11 U	0.20 U	0.20 U	0.037 U	0.037 U	0.034 U	0.033 U	0.033 U	0.076 U	0.18 U	0.11 U
	1,2,3-Trichloropropane	96-18-4	µg/L	-	0.20 U	0.20 U	0.079 U	0.079 U	0.040 U	0.013 U	0.013 U	0.065 U	0.072 U	0.068 U	0.20 U	0.20 U	0.079 U	0.079 U	0.040 U	0.013 U	0.013 U	0.065 U	0.072 U	0.068 U
	1,2,4-Trichlorobenzene	120-82-1	µg/L	-	0.20 U	0.20 U	0.062 U	0.062 U	0.037 U	0.026 U	0.026 U	0.053 U	0.13 U	0.13 U	0.20 U	0.20 U	0.062 U	0.062 U	0.037 U	0.026 U	0.026 U	0.053 U	0.13 U	0.13 U
	1,2,4-Trimethylbenzene	95-63-6	µg/L	80	0.20 U	0.20 U	0.053 U	0.053 U	0.017 U	0.027 U	0.027 U	0.040 U	0.099 U	0.074 U	0.20 U	0.20 U	0.053 U	0.053 U	0.017 U	0.027 U	0.027 U	0.040 U	0.099 U	0.074 U
	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	-	1.0 U	1.0 U	0.25 U	0.25 U	0.10 U	0.37 U	0.37 U	1.2 U	0.13 U	0.59 U	1.0 U	1.0 U	0.25 U	0.25 U	0.10 U	0.37 U	0.37 U	1.2 U	0.13 U	0.59 U
	1,2-Dibromoethane	106-93-4	µg/L	-	0.20 U	0.20 U	0.050 U	0.050 U	0.043 U	0.043 U	0.043 U	0.013 U	0.0080 U	0.045 U	0.20 U	0.20 U	0.050 U	0.050 U	0.043 U	0.043 U	0.043 U	0.013 U	0.0080 U	0.045 U
	1,2-Dichlorobenzene	95-50-1	µg/L	-	0.20 U	0.20 U	0.030 U	0.030 U	0.017 U	0.024 U	0.024 U	0.026 U	0.037 U	0.094 U	0.20 U	0.20 U	0.030 U	0.030 U	0.017 U	0.024 U	0.024 U	0.026 U	0.037 U	0.094 U
	1,2-Dichloroethane	107-06-2	µg/L	-	0.20 U	0.20 U	0.027 U	0.027 U	0.051 U	0.15 U	0.15 U	0.016 U	0.041 U	0.051 U	0.20 U	0.20 U	0.027 U	0.027 U	0.051 U	0.15 U	0.15 U	0.016 U	0.041 U	0.051 U
	1,2-Dichloropropane	78-87-5	µg/L	-	0.20 U	0.20 U	0.061 U	0.061 U	0.047 U	0.037 U	0.037 U	0.051 U	0.096 U	0.14 U	0.20 U	0.20 U	0.061 U	0.061 U	0.047 U	0.037 U	0.037 U	0.051 U	0.096 U	0.14 U
	1,3,5-Trimethylbenzene	108-67-8	µg/L	80	0.20 U	0.20 U	0.051 U	0.051 U	0.021 U	0.025 U	0.025 U	0.046 U	0.033 U	0.080 U	0.20 U	0.20 U	0.051 U	0.051 U	0.021 U	0.025 U	0.025 U	0.046 U	0.033 U	0.080 U
	1,3-Dichlorobenzene	541-73-1	µg/L	-	0.20 U	0.20 U	0.070 U	0.070 U	0.029 U	0.054 U	0.054 U	0.031 U	0.043 U	0.099 U	0.20 U	0.20 U	0.070 U	0.070 U	0.029 U	0.054 U	0.054 U	0.031 U	0.043 U	0.099 U
	1,3-Dichloropropane	142-28-9	µg/L	-	0.20 U	0.20 U	0.084 U	0.084 U	0.046 U	0.043 U	0.043 U	0.086 U	0.083 U	0.083 U	0.20 U	0.20 U	0.084 U	0.084 U	0.046 U	0.043 U	0.043 U	0.086 U	0.083 U	0.083 U
	1,4-Dichlorobenzene	106-46-7	µg/L	-	0.20 U	0.20 U	0.068 U	0.068 U	0.038 U	0.037 U	0.037 U	0.033 U	0.044 U	0.088 U	0.20 U	0.20 U	0.068 U	0.068 U	0.038 U	0.037 U	0.037 U	0.033 U	0.044 U	0.088 U
	2,2-Dichloropropane	594-20-7	µg/L	-	0.20 U	0.20 U	0.096 U	0.096 U	0.044 U	0.064 U	0.064 U	0.050 U	0.10 U	0.17 U	0.20 U	0.20 U	0.096 U	0.096 U	0.044 U	0.064 U	0.064 U	0.050 U	0.10 U	0.17

Table 5: Groundwater Analytical Results^{1, 2, 3}

Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Group	Analyte	CAS No.	Units	Preliminary Screening Level [†]	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-07	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08	KMW-08
					09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/24/21	09/01/21	03/21/22	08/19/22	09/01/17	01/26/18	08/16/18	02/08/19	08/20/19	08/19/20	03/22/21	09/01/21	03/21/22	08/19/22	
					KMW-07-9-1-17	KMW-07-012618	KMW-07-081618	KMW-7-020819	KMW-07-082019	KMW-07-081920	KMW-07-032421	KMW-07-090121	KMW-07-032122	KMW-07-081922	KMW-08-9-1-17	KMW-08-012618	KMW-08-081618	KMW-08-020819	KMW-08-082019	KMW-08-081920	KMW-08-032221	KMW-08-090121	KMW-08-032122	KMW-08-081922	
					N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VOCs (cont.)	Ethylbenzene	100-41-4	µg/L	700	0.20 U	0.20 U	0.039 U	0.039 U	0.032 U	0.022 U	0.022 U	0.0040 U	0.0045 U	0.025 U	0.20 U	0.20 U	0.039 U	0.039 U	0.032 U	0.022 U	0.022 U	0.0040 U	0.0045 U	0.025 U	
	Hexachlorobutadiene	87-68-3	µg/L	-	0.20 U	0.20 U	0.094 U	0.094 U	0.050 U	0.056 U	0.056 U	0.037 U	0.089 U	0.16 U	0.20 U	0.20 U	0.094 U	0.094 U	0.050 U	0.056 U	0.056 U	0.037 U	0.089 U	0.16 U	
	Iodomethane	74-88-4	µg/L	-	2.0 U	1.0 U	-	-	-	-	-	-	-	-	-	2.0 U	1.0 U	-	-	-	-	-	-	-	
	Isopropylbenzene	98-82-8	µg/L	-	0.20 U	0.20 U	0.049 U	0.049 U	0.024 U	0.026 U	0.026 U	0.047 U	0.074 U	0.071 U	0.79	0.95	0.049 U	0.049 U	0.024 U	0.026 U	0.026 U	0.047 U	0.074 U	0.071 U	
	m,p-Xylene	1330-20-7	µg/L	1,600	0.40 U	0.40 U	0.066 U	0.066 U	0.074 U	0.25 U	0.25 U	0.011 U	0.020 U	0.048 U	0.40 U	0.40 U	0.066 U	0.066 U	0.074 U	0.25 U	0.25 U	0.011 U	0.020 U	0.048 U	
	Methyl tert-Butyl Ether (MTBE)	1634-04-4	µg/L	-	0.20 U	0.20 U	0.050 U	0.050 U	0.046 U	0.030 U	0.030 U	0.011 U	0.0031 U	0.0045 U	0.20 U	0.20 U	0.050 U	0.050 U	0.046 U	0.030 U	0.030 U	0.011 U	0.0031 U	0.0045 U	
	Methylene chloride	75-09-2	µg/L	-	2.0 U	1.0 U	5.0 U	5.0 U	1.9 U	2.0 U	2.0 U	2.3 U	1.5 U	2.6 U	2.0 U	1.0 U	5.0 U	5.0 U	5.1 U	2.0 U	2.0 U	2.3 U	1.5 U	2.6 U	
	Napthalene	91-20-3	µg/L	160	1.0 U	1.0 U	0.042 U	0.042 U	0.038 U	0.032 U	0.032 U	0.029 U	0.095 U	0.19 U	1.0 U	1.0 U	0.042 U	0.042 U	0.038 U	0.032 U	0.032 U	0.029 U	0.095 U	0.19 U	
	n-Butylbenzene	104-51-8	µg/L	-	0.20 U	0.20 U	-	-	-	-	-	-	-	-	-	0.51	0.39	-	-	-	-	-	-	-	
	n-Hexane	110-54-3	µg/L	-	-	-	0.046 U	0.046 U	0.039 U	0.57 U	0.57 U	0.068 U	0.065 U	0.12 U	-	-	0.046 U	0.046 U	0.039 U	0.57 U	0.57 U	0.068 U	0.065 U	0.12 U	
	n-Propylbenzene	103-65-1	µg/L	-	0.20 U	0.20 U	0.030 U	0.030 U	0.033 U	0.033 U	0.033 U	0.040 U	0.029 U	0.094 U	0.84	0.85	0.030 U	0.030 U	0.033 U	0.033 U	0.033 U	0.040 U	0.029 U	0.094 U	
	o-Xylene	95-47-6	µg/L	1,600	0.20 U	0.20 U	0.032 U	0.032 U	0.038 U	0.042 U	0.042 U	0.0054 U	0.0088 U	0.019 U	0.20 U	0.20 U	0.032 U	0.032 U	0.038 U	0.042 U	0.042 U	0.0054 U	0.0088 U	0.019 U	
	sec-Butylbenzene	135-98-8	µg/L	-	0.29	0.20 U	0.034 U	0.034 U	0.023 U	0.024 U	0.024 U	0.037 U	0.029 U	0.090 U	2.2	2.3	0.034 U	0.034 U	0.023 U	0.024 U	0.024 U	0.037 U	0.029 U	0.090 U	
	Styrene	100-42-5	µg/L	-	0.20 U	0.20 U	0.061 U	0.061 U	0.028 U	0.032 U	0.032 U	0.12 U	0.049 U	0.071 U	0.20 U	0.20 U	0.061 U	0.061 U	0.028 U	0.032 U	0.032 U	0.12 U	0.049 U	0.071 U	
	tert-Butylbenzene	98-06-6	µg/L	-	0.20 U	0.20 U	0.049 U	0.049 U	0.014 U	0.030 U	0.030 U	0.062 U	0.038 U	0.076 U	0.24	0.29	0.049 U	0.049 U	0.014 U	0.030 U	0.030 U	0.062 U	0.038 U	0.076 U	
	Tetrachloroethene	127-18-4	µg/L	-	0.20 U	0.20 U	0.076 U	0.076 U	0.088 U	0.056 U	0.056 U	0.0098 U	0.017 U	0.077 U	0.20 U	0.20 U	0.076 U	0.076 U	0.088 U	0.056 U	0.056 U	0.0098 U	0.017 U	0.077 U	
	Toluene	108-88-3	µg/L	640	1.0 U	1.0 U	0.046 U	0.046 U	0.033 U	0.030 U	0.030 U	0.0044 U	0.021 U	0.040 U	1.0 U	1.0 U	0.046 U	0.046 U	0.033 U	0.030 U	0.030 U	0.0044 U	0.021 U	0.040 U	
	trans-1,2-Dichloroethene	156-60-5	µg/L	-	0.20 U	0.20 U	0.080 U	0.080 U	0.041 U	0.037 U	0.037 U	0.021 U	0.019 U	0.035 U	0.20 U	0.20 U	0.080 U	0.080 U	0.041 U	0.037 U	0.037 U	0.021 U	0.019 U	0.035 U	
	trans-1,3-Dichloropropene	10061-02-6	µg/L	-	0.20 U	0.20 U	0.079 U	0.079 U	0.049 U	0.050 U	0.050 U	0.048 U	0.093 U	0.12 U	0.20 U	0.20 U	0.079 U	0.079 U	0.049 U	0.050 U	0.050 U	0.048 U	0.093 U	0.12 U	
	Trichloroethene	79-01-6	µg/L	4.0	0.20 U	0.20 U	0.046 U	0.046 U	0.084 U	0.085 U	0.085 U	0.0084 U	0.0090 U	0.045 U	0.20 U	0.20 U	0.046 U	0.046 U	0.084 U	0.085 U	0.085 U	0.0084 U	0.0090 U	0.045 U	
	Trichlorofluoromethane	75-69-4	µg/L	-	0.20 U	0.20 U	0.038 U	0.038 U	0.051 U	0.037 U	0.037 U	0.057 U	0.082 U	0.19 U	0.20 U	0.20 U	0.038 U	0.038 U	0.051 U	0.037 U	0.037 U	0.057 U	0.082 U	0.19 U	
	Vinyl acetate	108-05-4	µg/L	-	1.0 U	1.0 U	-	-	-	-	-	-	-	-	-	1.0 U	1.0 U	-	-	-	-	-	-	-	-
	Vinyl chloride	75-01-4	µg/L	0.29	0.20 U	0.20 U	0.042 U	0.042 U	0.063 U	0.067 U	0.067 U	0.0054 U	0.012 U	0.018 U	0.20 U	0.20 U	0.042 U	0.042 U	0.063 U	0.067 U	0.067 U	0.0054 U	0.012 U	0.018 U	

Table 6: Soil Vapor Extraction System Analytical Summary^{1, 2, 3}
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Sample	Date ⁴	Benzene ⁵	TPH ⁶
		(mg/m ³)	(mg/m ³)
Western SVE Wells			
SVE-09	11/7/17	0.069	310
	5/30/19	<0.1	630
	6/4/19	<0.1	440
SVE-10	11/7/17	0.53	820 J
	5/30/19	<0.5	3,500
	6/4/19	<0.5	2,300
SVE-11	11/7/17	0.069	220
	5/30/19	<0.1	1,300
	6/4/19	<0.1	660
SVE-12	11/7/17	0.44	1,400 J
	5/30/19	<0.1	3,300
	6/4/19	<0.2	1,400
SVE-13	11/7/17	0.23	600 J
	5/30/19	<0.1	2,100
	6/4/19	<0.1	760
Eastern SVE Wells			
SVE-02	11/7/17	<0.03	3.4
	5/30/19	<0.1	<7.1
	6/4/19	<0.1	14
SVE-04	11/7/17	<0.03	310
	5/30/19	<0.1	470
	6/4/19	<0.1	400
SVE-06	11/7/17	0.041	280
	5/30/19	<0.1	36
	6/4/19	<0.1	33
SVE-08	11/7/17	<0.03	65
	5/30/19	<0.1	30
	6/4/19	<0.1	16
SVE-07	11/7/17	<0.03	82
	5/30/19	<0.1	70
	6/4/19	<0.1	230
SVE-05	11/7/17	0.50	2,200 J
	5/30/19	<0.2	5,100
	6/4/19	<0.5	3,500
SVE-03	11/7/17	1.1	1,900 J
	5/30/19	<0.2	1,900
	6/4/19	<0.1	2,400
SVE-01	11/7/17	0.14	450
	5/30/19	<0.1	10
	6/4/19	<0.1	14

Table 6: Soil Vapor Extraction System Analytical Summary^{1, 2, 3}
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Sample	Date ⁴	Benzene ⁵	TPH ⁶
		(mg/m ³)	(mg/m ³)
Influent	3/21/18	<0.034	140
	5/30/18	<0.034	170
	6/29/18	<0.034	530
	7/31/18	<0.034	730
	8/31/18	<0.034	550
	9/19/18	<0.034	470
	10/16/18	<0.034	1,900
	4/3/19	<0.034	670
	5/3/19	<0.034	-
	5/30/19	<0.10	1,100
	6/4/19	<0.10	640
	7/2/19	<0.10	-
	8/7/19	0.22	-
	1/9/20	<0.50	8,200
	2/14/20	<0.10	180
	3/17/20	<0.0011	135
	4/20/20	0.035	90
	5/18/20	0.0059	110
	6/16/20	0.065	170
	7/20/20	0.055	260
	8/27/20	0.12	840
	9/21/20	<0.013	1,400
	10/26/20	<0.0028	980
	11/18/20	0.035	140
	12/14/20	<0.0030	280
	1/11/21	<0.0030	140
	2/9/21	0.032	370
	3/9/21	0.057	420
	4/6/21	0.020	320
	5/11/21	0.021	510
	6/16/21	<0.00033	490
	7/13/21	<0.00034	2,400
	8/5/21	<0.00035	1,800
	9/7/21	<0.00034	600
	10/5/21	<0.00036	290
	11/11/21	<0.00039	89
	12/8/21	<0.00036	41
	1/12/22	0.0026	11.0
	2/7/22	<0.00037	15.0
	3/8/22	<0.000071	<2.6
	4/8/22	0.014	6.80
	5/10/22	<0.000082	3.30
	6/7/22	0.0061	11.0
	7/5/22	0.0068	15.0
	8/17/22	<0.000083	3.50
	9/27/22	<0.00015	62.0
	10/11/22	<0.0021	49.0
	11/8/22	<0.0022	37.0
	12/6/22	<0.011	22.0

Table 6: Soil Vapor Extraction System Analytical Summary^{1, 2, 3}
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Sample	Date ⁴	Benzene ⁵	TPH ⁶
		(mg/m ³)	(mg/m ³)
Effluent	11/7/17	<0.03	28
	3/21/18	<0.034	10
	4/24/18	<0.034	15
	5/30/18	<0.034	160
	6/29/18	<0.034	520
	7/31/18	<0.034	450
	8/31/18	<0.034	23
	9/19/18	<0.034	59
	10/16/18	<0.034	460
	4/3/19	<0.034	10
	5/3/19	<0.034	-
	5/30/19	<0.10	41
	6/4/19	<0.10	20
	7/2/19	<0.10	-
	8/7/19	<0.10	-
	1/9/20	<0.10	1,400
	2/14/20	<0.10	20
	3/17/20	<0.00086	<2.2
	4/20/20	<0.00023	<2.3
	5/18/20	<0.00023	<1.1
	6/16/20	<0.00025	<1.3
	7/20/20	<0.00023	<1.2
	8/27/20	<0.00023	<0.92
	9/21/20	<0.00023	<0.95
	10/26/20	<0.00022	<0.89
	11/18/20	<0.00023	<0.95
	12/14/20	<0.00023	<0.95
	1/11/21	<0.00024	<0.98
	2/9/21	<0.00016	<1.6
	3/9/21	<0.00040	<1.6
	4/6/21	<0.00042	<1.6
	5/11/21	<0.00067	<2.5
	6/16/21	<0.00043	<1.6
	7/13/21	<0.00044	<1.6
	8/5/21	<0.00044	<1.6
	9/7/21	<0.00044	<1.6
	10/5/21	<0.00047	<1.7
	11/11/21	<0.00052	<1.9
	12/8/21	<0.00046	<1.7
	1/12/22	<0.00044	<1.6
	2/7/22	<0.00052	<1.7
	3/8/22	<0.00046	<1.7
	4/8/22	<0.00050	<1.7
	5/10/22	<0.00051	<0.28
	6/7/22	<0.00012	<0.12
	7/5/22	<0.00015	<0.16
	8/17/22	<0.00054	<0.18
	9/27/22	<0.00005	<0.16
	10/11/22	0.0075	<0.33

Table 6: Soil Vapor Extraction System Analytical Summary^{1, 2, 3}
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Sample	Date ⁴	Benzene ⁵	TPH ⁶
		(mg/m ³)	(mg/m ³)
Effluent (cont)	11/18/22	<0.0014	<1.5
	12/6/22	<0.0015	<1.5

Notes:

1. **Bold** values indicate results above the detection limits.
2. Data qualifiers are as follows:
J = the result is estimated because the concentration exceeded the calibration range of the instrument.
3. Analytes that were not detected above the method detection limit are listed as less than the detection limit.
4. The SVE system began operating without air sparging on November 7, 2017. The SVE did not operate between October 16, 2018, and April 1, 2019. SVE system with air sparge began operating on May 29, 2019.
5. Benzene results are from USEPA Method SW8021B through February 2020, then TO-15 from March 2020 onward.
6. TPH results are from Ecology Method NWPTW-Gx.

Abbreviations:

Ecology = Washington State Department of Ecology

SVE = soil vapor extraction

TPH = total petroleum hydrocarbons

USEPA = U.S. Environmental Protection Agency

Table 7: SVE/CATOX and PSCAA Permit Compliance Results
Former Kelly-Moore Manufacturing Facility, Seattle, Washington

Field Visit Date	CATOX Results (Influent / Effluent)						CATOX Operation				Estimated Mass Removal / Removal Rates ²											
	PID / FID Field Readings		Laboratory Results ¹				Extraction Rate (scfm)	Influent Temperature (°F)	Hour Meter (hours)	Operational Hours of Interval (hours)	Using PID / FID Field Reading Results*				Using Laboratory Results - TPH Gasoline Range				Using Laboratory Results - Benzene			
											Mass Removal Efficiency (%)	Mass Removal Rate (lbs/day)	Mass Removed per Interval (lbs)	Cumulative Mass Removed (lbs)	Mass Removal Efficiency (%)	Mass Removal Rate (lbs/day)	Mass Removed per Interval (lbs)	Cumulative Mass Removed (lbs)	Mass Removal Efficiency (%)	Mass Removal Rate (lbs/day)	Mass Removed per Interval (lbs)	Cumulative Mass Removed (lbs)
	Influent (ppmv)	Effluent (ppmv)	Influent (µg/m ³)	Effluent (µg/m ³)	Influent (µg/m ³)	Effluent (µg/m ³)																
NOC Conditions ⁴	-	≤ 10	-	-	-	-	-	> 650	-	-	See Notes	-	-	-	-	-	-	-	-	-	-	-
1/9/2020	6,333.0	2,075.0	8,200,000	1,400,000	500.0	100.0	78	799	3,598.7	35.0	67.2%	105.10	153.3	2,861.2	82.9%	47.7	69.6	1,545.8	80.0%	0.00281	0.00205	0.17384
2/14/2020	55.0	1.3	180,000	20,000	100.0	99.0	198	665	3,897.0	298.3	97.6%	3.36	674.1	3,535.2	88.9%	2.9	314.3	1,860.1	1.0%	0.00002	0.01755	0.19139
3/17/2020	100.9	7.6	135,000	2,200	1.1	0.09	225	659	4,056.0	159.0	92.5%	6.64	33.1	3,568.4	98.4%	2.7	18.3	1,878.4	92.2%	0.00002	0.00013	0.19152
4/20/2020	98.9	4.8	90,000	2,300	35	0.23	155	696	4,854.0	798.0	95.1%	4.62	187.2	3,755.5	97.4%	1.2	65.0	1,943.4	99.3%	0.00048	0.00840	0.19992
5/18/2020	6.2	0.3	110,000	1,100	5.9	0.23	138	687	5,525.0	671.0	95.2%	0.26	68.1	3,823.7	99.0%	1.4	36.0	1,979.4	96.1%	0.00007	0.00776	0.20768
6/16/2020	25.0	1.3	170,000	1,300	65	0.25	150	701	6,164.0	639.0	94.8%	1.12	18.4	3,842.1	99.2%	2.3	48.3	2,027.7	99.6%	0.00087	0.01257	0.22025
7/20/2020	42.0	5.0	260,000	1,200	55	0.23	151	716	6,980.0	816.0	88.1%	1.77	49.2	3,891.2	99.5%	3.5	98.5	2,126.2	99.6%	0.00074	0.02750	0.24775
8/27/2020	321.0	7.5	840,000	920	120	0.23	125	705	7,885.2	905.2	97.7%	12.40	267.2	4,158.5	99.9%	9.4	244.3	2,370.5	99.8%	0.00135	0.03943	0.28719
9/21/2020	228.0	4.2	1,400,000	950	13	0.23	130	703	8,485.0	599.7	98.2%	9.21	270.0	4,428.4	99.9%	16.4	322.3	2,692.8	98.2%	0.00015	0.01869	0.30588
10/26/2020	195.0	3.0	980,000	890	2.8	0.22	277	690	9,181.0	696.0	98.5%	16.83	377.5	4,806.0	99.9%	24.4	591.1	3,283.9	92.1%	0.00006	0.00310	0.30898
11/18/2020	62.5	1.4	140,000	950	35	0.23	234	688	9,734.0	553.0	97.8%	4.52	246.0	5,052.0	99.3%	2.9	314.8	3,598.7	99.3%	0.00073	0.00917	0.31815
12/14/2020	25.9	1.8	280,000	950	3.0	0.23	279	697	10,343.0	609.0	93.1%	2.13	84.4	5,136.4	99.7%	7.0	126.0	3,724.7	92.3%	0.00007	0.01017	0.32832
1/11/2021	97.5	1.5	140,000	980	3.0	0.24	280	705	11,013.0	670.0	98.5%	8.51	148.4	5,284.8	99.3%	3.5	146.6	3,871.4	92.0%	0.00007	0.00194	0.33026
2/9/2021	309.0	3.0	370,000	1,600	32	0.16	63	684	11,690.0	677.0	99.0%	6.10	206.0	5,490.8	99.6%	2.1	78.8	3,950.2	99.5%	0.00018	0.00353	0.33379
3/9/2021	103.9	2.0	420,000	1,600	57	0.40	67	712	12,324.0	634.0	98.1%	2.16	109.1	5,599.9	99.6%	2.5	60.9	4,011.1	99.3%	0.00034	0.00689	0.34068
4/6/2021	230.0	3.7	320,000	1,600	20	0.042	67	560	12,994.8	670.8	98.4%	4.80	97.2	5,697.2	99.5%	1.9	62.1	4,073.2	99.8%	0.00012	0.00645	0.34713
5/11/2021	344.0	2.8	510,000	2,500	21	0.067	96	728	13,822.0	827.2	99.2%	10.37	261.3	5,958.5	99.5%	4.4	108.6	4,181.8	99.7%	0.00018	0.00519	0.35232
6/16/2021	124.4	5.5	490,000	1,600	0.33	0.043	286	707	14,689.0	867.0	95.6%	10.76	381.6	6,340.1	99.7%	12.6	306.2	4,487.9	87.0%	0.00001	0.00340	0.35572
7/13/2021	771.6	2.2	2,400,000	1,600	0.34	0.044	291	695	14,899.7	210.7	99.7%	70.85	358.2	6,698.2	99.9%	62.8	330.7	4,818.7	87.1%	0.00001	0.00007	0.35578
8/5/2021	505.0	5.1	1,800,000	1,600	0.35	0.044	290	706	15,452.0	552.3	99.0%	45.88	1,343.1	8,041.3	99.9%	46.9	1,262.4	6,081.0	87.4%	0.00001	0.00018	0.35596
9/7/2021	299.0	1.7	600,000	1,600	0.34	0.044	319	698	16,226.0	774.0	99.4%	30.01	1,223.7	9,265.0	99.7%	17.2	1,033.6	7,114.6	87.1%	0.00001	0.00027	0.35623
10/5/2021	137.1	0.3	290,000	1,700	0.36	0.047	247	690	16,899.0	673.0	99.8%	10.69	570.7	9,835.7	99.4%	6.4	330.6	7,445.2	86.9%	0.00001	0.00022	0.35645
11/11/21	23.1	1.0	89,000	1,900	0.39	0.052	290	684	17,768.0	869.0	95.7%	2.03	230.3	10,066.0	97.9%	2.3	157.1	7,602.3	86.7%	0.00001	0.00029	0.35673
12/8/21	6.0	0.5	41,000	1,700	0.36	0.046	79	728	18,389.0	621.0	91.7%	0.14	28.0	10,094.1	95.9%	0.3	33.0	7,635.3	87.2%	0.00000	0.00014	0.35687
1/12/22			11,000	1,600	2.60	0.044	24	739	19,208.0	819.0				10,094.1	85.5%	0.0	5.1	7,640.5	98.3%	0.00001	0.00013	0.35701
2/7/22	1.8	0.0	15,000	1,700	0.37	0.052	68	693	19,827.8	619.8	100.0%	0.04	0.5	10,094.6	88.7%	0.1	1.3	7,641.8	85.9%	0.00000	0.00010	0.35710
3/8/22	0.0	0.0	2,600	1,700	0.07	0.046	30	739	20,488.0	660.2	-	0.00	0.5	10,095.1	34.6%	0.0	1.2	7,642.9	35.2%	0.00000	0.00003	0.35713
4/8/22	0.4	0.0	6,800	1,700	14	0.050	32	738	20,801.0	743.0	100.0%	0.00	0.1	10,095.2	75.0%	0.0	0.3	7,643.2	99.6%	0.00004	0.00062	0.35775
5/10/22	0.2	0.0	3,300	280	0.08	0.051	48	742	20,801.0	720.0	100.0%	0.00	0.1	10,095.3	91.5%	0.0	0.4	7,643.6	37.8%	0.00000	0.00060	0.35836
6/7/22	1.6	0.0	11,000	120	6.1	0.120	49	694	576.3	672.0	100.0%	0.02	0.4	10,095.6	98.9%	0.0	0.9	7,644.5	98.0%	0.00003	0.00037	0.35873
7/5/22	1.5	0.0	15,000	160	6.8	0.150	52	693	1,247.8	671.4	100.0%	0.02	0.7	10,096.3	98.9%	0.1	1.6	7,646.1	97.8%	0.00003	0.00080	0.35953
8/17/22	4.7	0.1	3,500	300	0.08	0.054	297	694	1,904.2	656.4	97.9%	0.43	6.2	10,102.6	91.4%	0.1	2.1	7,648.2	34.9%	0.00000	0.00044	0.35997
9/13/22	13.7	0.9	2,800	1,800	2.7	1.7	300	693	2,889.51	985.4	93.4%	1.22	33.8	10,136.4	35.7%	0.0	2.3	7,650.5	37.0%	0.00003	0.00057	0.36054
9/27/22	18.0	0.0	62,000	1,600	4.8	1.6	300	701	3,225.6	336.0	100.0%	1.71	20.5	10,156.9	97.4%	1.6	11.6	7,662.1	66.7%	0.00009	0.00079	0.36133
10/11/22	9.4	0.0	49,000	330	2.1	7.5	295	688	3,561.9	336.4	100.0%	0.88	18.1	10,175.0	99.3%	1.3	20.5	7,682.6	-257.1%	-0.00014	-0.00040	0.36093
11/8/22	7.1	0.0	37,000	1,500	2.2	1.4	255	690	4,235.6	673.7	100.0%	0.57	20.4	10,195.4	95.9%	0.8	29.6	7,712.2	36.4%	0.00002	-0.00175	0.35918
12/6/22	1.2	0.0	22,000	1,500	11.0	1.5	284	667	4,906.0	670.4	100.0%	0.11	9.5	10,204.9	93.2%	0.5	18.7	7,730.9	86.4%	0.00024	0.00365	0.36283

* = mass as equivalent hexane
** = Pre-control inlet emissions based on laboratory data

Conversions / Constants

Hexane Mol Weight = 86 grams/mol
Molar Volume = 24.45 liters
1 meter = 3.28 feet
1 pound = 453592 milligrams
1 day = 1440 minutes

Abbreviations

µg/m³ = micrograms per cubic meter
°F = degrees Fahrenheit
% = percent
CATOX = catalytic oxidizers
Ecology = Washington State Department of Ecology
FID = flame ionization detector
lbs = pounds
NOC = Notice of Construction
O&M = operations and maintenance
PID = photoionization detector
ppmv = parts per million by volume
PSCAA = Puget Sound Clean Air Agency
scfm - standard cubic feet per minute
TPH = total petroleum hydrocarbons
USEPA = United States Environmental Protection Agency

Notes:

1) Laboratory results that are below reporting or method detection limits are presented with the respective limit values to facilitate calculations.

2) The estimated mass of contaminant removed per interval is obtained by multiplying the mass removal rate, averaged over the current and prior field visit, by the time elapsed for the interval as measured by the hour meter.

3) Estimated pre-control emission rate is more than the maximum value (2.74 lb/day for TPH, 0.018 lb/day for benzene) for which no air treatment controls are required per PSCAA NOC conditions.

4) Conditions from PSCAA Notice of Construction No. 11291, Registration No. 29932

FID Field Reading for Removal Efficiency / Discharge Concentration

- Greater than or equal to 97% if inlet TPH is greater than or equal to 200 ppmv (measured as hexane with FID).
- Greater than or equal to 90% if inlet TPH is less than 200 ppmv (measured as hexane with FID).
- Effluent at less than or equal to 10 ppmv (measured as hexane with FID).
- CATOX flow rate must not exceed 300 scfm.
- Use only electric CATOX.
- CATOX temperature must be a minimum of 650F degrees.
- System must shutdown if CATOX temperature drops below 650F degrees during normal operation.
- CATOX must have sensor to monitor system temperature continuously.

No Air Treatment Controls are Required if:

- Pre-control TPH emissions are less than or equal to 2.74 lbs/day
- Pre-control benzene emissions are less than equal to 0.018 lbs/day

5) TPH-Gasoline Range and benzene concentrations were analyzed by Ecology Method NWTPH-Gx and USEPA Method 8021B from January-February 2020 and by USEPA Method TO-15 and Ecology NWTPH-Gx since March 2020. Benzene influent and effluent laboratory results that are 100 and 99 µg/m3 represent samples that were below the detection level of 100 µg/m3. The 99 value is used to keep the calculations from dividing by zero. Actual values could be lower than shown.

6) The January 9, 2020 field results reflect the CATOX system restart after months of being offline and is not indicative of continuous operation. Initial startup concentrations are usually higher than during extended operation and CATOX may not have been consistently reached above minimum temperature which is required for removal efficiency.

7) The April 6, 2021 CATOX influent temperature recorded is likely not indicative of CATOX operating conditions due to incorrect configuration of the meter, which was remedied on the same day. See Appendix C.

8) Field monitoring equipment failed during O&M visit, no PID or FID readings available.

9) Hour meter failed and was replaced on May 10, 2022. Operational hours is an estimate.

Table 7: SVE/CATOX
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Field Visit Date	Estimated Pre-Control Emission		Estimated Post-Control Emission	
	Rate for PSCAA Condition ³		Rate	
	TPH-Gasoline Range Emission Rate (lbs/day)	Benzene Emission Rate (lbs/day)	TPH-Gasoline Range Emission Rate (lbs/day)	Benzene Emission Rate (lbs/day)
NOC Conditions ⁴	≤ 2.74	≤ 0.018	-	-
1/9/2020	57.54	0.004	9.82	0.001
2/14/2020	3.21	0.002	0.36	0.002
3/17/2020	2.73	0.000	0.04	0.000
4/20/2020	1.26	0.000	0.03	0.000
5/18/2020	1.37	0.000	0.01	0.000
6/16/2020	2.29	0.001	0.02	0.000
7/20/2020	3.53	0.001	0.02	0.000
8/27/2020	9.45	0.001	0.01	0.000
9/21/2020	16.37	0.000	0.01	0.000
10/26/2020	24.42	0.000	0.02	0.000
11/18/2020	2.95	0.001	0.02	0.000
12/14/2020	7.03	0.000	0.02	0.000
1/11/2021	3.53	0.000	0.02	0.000
2/9/2021	2.10	0.000	0.01	0.000
3/9/2021	2.53	0.000	0.01	0.000
4/6/2021	1.93	0.000	0.01	0.000
5/11/2021	4.40	0.000	0.02	0.000
6/16/2021	12.61	0.000	0.04	0.000
7/13/2021	62.83	0.000	0.04	0.000
8/5/2021	46.96	0.000	0.04	0.000
9/7/2021	17.22	0.000	0.05	0.000
10/5/2021	6.44	0.000	0.04	0.000
11/11/21	2.32	0.000	0.05	0.000
12/8/21	0.29	0.000	0.01	0.000
1/12/22	0.02	0.000	0.00	0.000
2/7/22	0.09	0.000	0.01	0.000
3/8/22	0.01	0.000	0.00	0.000
4/8/22	0.02	0.000	0.00	0.000
5/10/22	0.01	0.000	0.00	0.000
6/7/22	0.05	0.000	0.00	0.000
7/5/22	0.07	0.000	0.00	0.000
8/17/22	0.09	0.000	0.01	0.000
9/13/22	0.08	0.000	0.05	0.000
9/27/22	1.67	0.000	0.04	0.000
10/11/22	1.30	0.000	0.01	0.000
11/8/22	0.85	0.000	0.03	0.000
12/6/22	0.56	0.000	0.04	0.000

* = mass as equivalent hexane
** = Pre-control inlet emissions based on laboratory data

Conversions / Constants

Hexane Mol Weight = 86
Molar Volume = 24.45
1 meter = 3.28
1 pound = 453592
1 day = 1440

Abbreviations

µg/m³ = micrograms per cubic meter
°F = degrees Fahrenheit
% = percent
CATOX = catalytic oxidizers
Ecology = Washington State Department of Ecology
FID = flame ionization detector
lbs = pounds
NOC = Notice of Construction
O&M = operations and maintenance
PID = photoionization detector
ppmv = parts per million by volume
PSCAA = Puget Sound Clean Air Agency
scfm - standard cubic feet per minute
TPH = total petroleum hydrocarbons
USEPA = United States Environmental Protection Agency

Notes:

- 1) Laboratory results that are below reporting or method detection limits are presented with the respective limit values to facilitate calculations.
- 2) The estimated mass of contaminant removed per interval is obtained by multiplying the mass removal rate, averaged over the current and prior field visit, by the time elapsed for the interval as measured by the hour meter.
- 3) Estimated pre-control emission rate is more than the maximum value (2.74 lb/day for TPH, 0.018 lb/day for benzene) for which no air treatment controls are required per PSCAA NOC conditions.
- 4) Conditions from PSCAA Notice of Construction No. 11291, Registration No. 29932
FID Field Reading for Removal Efficiency / Discharge Concentration
1. Greater than or equal to 97% if inlet TPH is greater than or equal to 200 ppmv (measured as hexane with FID).
2. Greater than or equal to 90% if inlet TPH is less than 200 ppmv (measured as hexane with FID).
3. Effluent at less than or equal to 10 ppmv (measured as hexane with FID).
4. CATOX flow rate must not exceed 300 scfm.
5. Use only electric CATOX.
6. CATOX temperature must be a minimum of 650F degrees.
7. System must shutdown if CATOX temperature drops below 650F degrees during normal operation.
8. CATOX must have sensor to monitor system temperature continuously.
No Air Treatment Controls are Required if:
9. Pre-control TPH emissions are less than or equal to 2.74 lbs/day
10. Pre-control benzene emissions are less than equal to 0.018 lbs/day
- 5) TPH-Gasoline Range and benzene concentrations were analyzed by Ecology Method NWTPH-Gx and USEPA Method 8021B from January-February 2020 and by USEPA Method TO-15 and Ecology NWTPH-Gx since March 2020. Benzene influent and effluent laboratory results that are 100 and 99 µg/m3 represent samples that were below the detection level of 100 µg/m3. The 99 value is used to keep the calculations from dividing by zero. Actual values could be lower than shown.

- 6) The January 9, 2020 field results reflect the CATOX system restart after months of being offline and is not indicative of continuous operation. Initial startup concentrations are usually higher than during extended operation and CATOX may not have been consistently reached above minimum temperature which is required for removal efficiency.
- 7) The April 6, 2021 CATOX influent temperature recorded is likely not indicative of CATOX operating conditions due to incorrect configuration of the meter, which was remedied on the same day. See Appendix C.
- 8) Field monitoring equipment failed during O&M visit, no PID or FID readings available.
- 9) Hour meter failed and was replaced on May 10, 2022. Operational hours is an estimate.

APPENDIX A

SOIL BORING LOGS AND MONITORING WELL CONSTRUCTION LOGS

DEPTH (ft bgs)	GRAPHIC LOG	USCS SYMBOL	SOIL DESCRIPTION	SAMPLE	PID READING (ppm)	GROUNDWATER	GW SCREENED INTERVAL	FIELD TESTING	TESTING AND LABORATORY DATA
0		SW-GM	Loose, brownish gray, dry, silty SAND with gravel (FILL)		0.0				
1		SM	Medium stiff, dark brown, moist, sandy SILT						
2		SW-GM	Loose, brownish gray, dry, silty SAND with gravel (FILL)						
3		SP	Medium dense, dark brown, moist, SAND						
5		SW	Loose, brownish gray, dry, silty SAND with gravel						
6		SP	Loose, dark brown, moist, poorly graded, medium SAND		0.0	▽			
10		SW	Medium dense, light brown, dry, gravelly silty SAND						
11		SP	Medium dense, dark brown, wet, poorly graded SAND		0.0				
15					0.0				
20			End of boring at 20 ft bgs						△ KM-DP-01-15'-20' @ 0945 VOCs
30									
BORING METHOD: Direct Push BOREHOLE DIAMETER: DRILL RIG: 7720 DT Geoprobe CONTRACTOR: Steadfast Drilling LOGGED BY: J. Perkins					ELEVATION REFERENCE: NAVD 88 GROUND SURFACE ELEVATION: NA DRILLING DATES: 8/11/2022 - 8/11/2022 LOCATION: 5410 Airport Way S. (between N building & overpass) REMARKS: NORTHING: EASTING:				

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PS23206100.01

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LOG OF BORING
KM-DP-01

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DIRECT PUSH BORING (LOCATION&NORTH/EAST) PS23206100.01.GPJ AMECFW SAN DIEGO.GDT 3/28/23

DEPTH (ft bgs)	GRAPHIC LOG	USCS SYMBOL	SOIL DESCRIPTION	SAMPLE	PID READING (ppm)	GROUNDWATER	GW SCREENED INTERVAL	FIELD TESTING	TESTING AND LABORATORY DATA
0		SW-GM	Loose, grayish brown, dry, silty SAND with gravel		0.0				KM-DP-02-1'-2' @ 1520 RCRA8 Metals KM-DP-02-4'-5' @ 1530 RCRA8 Metals
		SM	Dense, dark brown, dry, sandy SILT with some gravel, fines increase downward, trace organics (roots)						
		SP	Diesel smell, no PID reading at 1 ft bgs						
		SP	Concentration of organics at ~2 ft bgs						
			Loose, black, dry, SAND, contains 2-10 mm pieces of pumice						
			Loose, dark brown, slightly moist, poorly graded SAND						
5			End of boring at 5 ft bgs						
10									
15									
20									
25									
30									
BORING METHOD: Direct Push BOREHOLE DIAMETER: DRILL RIG: 7720 DT Geoprobe CONTRACTOR: Steadfast Drilling LOGGED BY: J. Perkins					ELEVATION REFERENCE: NAVD 88 GROUND SURFACE ELEVATION: NA DRILLING DATES: 8/11/2022 - 8/11/2022 LOCATION: 5510 Airport Way S. (S. parking lot, central area) REMARKS: NORTHING: EASTING:				

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LOG OF BORING
KM-DP-02

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DEPTH (ft bgs)	GRAPHIC LOG	USCS SYMBOL	SOIL DESCRIPTION	SAMPLE	BLOW COUNT SPT N VALUE	PID READING (ppm)	GROUNDWATER	LABORATORY TESTING	WELL SCHEMATIC
0		GM-SW	Loose, dry, gravelly SAND (FILL)						Flush-Mounted Well with Locking Cap
0		SM-SP	Medium dense, dark brown, slightly damp, silty SAND Loose, brown, moist, poorly graded SAND, lenses of silty sand			0.0			Cement
5		SM-SP							Bentonite Chips (3/4-inch)
5		SM-SP							Casing (Schedule 40 PVC, 2.0-inch i. d.)
5		SM-SP							10-20 Colorado Silica Sand Pre-Pack
10		SM-SP				1600		KMW-11-7'-8' @ 1110	Well Screen (Schedule 40 PVC, 2.0-inch i. d. with 0.010-inch slots, pre-pack)
10		SM-SP				0.0			
10		SM-SP							
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DEPTH (ft bgs)	GRAPHIC LOG	USCS SYMBOL	SOIL DESCRIPTION	SAMPLE	BLOW COUNT SPT N VALUE	PID READING (ppm)	GROUNDWATER	LABORATORY TESTING	WELL SCHEMATIC
0	SW	ML	Medium dense, light brown, dry, silty gravelly SAND (FILL)						Flush-Mounted Well with Locking Cap
	ML	SM	Stiff, light brown, dry, SILT with trace gravel						Cement
	SM	ML	Soft, dark brown, dry, sandy SILT						Bentonite Chips (3/4-inch)
	ML		Brick debris at 1.5 ft bgs			0.0			Casing (Schedule 40 PVC, 2.0-inch i. d.)
			Stiff to very stiff, medium brown, dry, SILT with clay						10-20 Colorado Silica Sand Pre-Pack
	SP		Loose, dark brown, slightly moist, poorly graded SAND, coarsens downward						Well Screen (Schedule 40 PVC, 2.0-inch i. d. with 0.010-inch slots, pre-pack)
5		ML	Medium stiff, light brown, dry, SILT with organics (wood debris)			6.1	▽		
	SP		Medium dense, very dark brown, wet, poorly graded SAND with occasional lenses of silty sand with trace organics (roots)						
						0.0			
10			Saturated below ~10.5 ft bgs						
						0.0			
15	ML		Soft, grayish brown, wet, SILT with trace fine sand						PVC End Cap
			End of boring at 15 ft bgs						
20									
25									
30									
BORING METHOD: Direct Push			ELEVATION REFERENCE: NAVD 88			LOCATION: 5510 Airport Way S. (S. parking lot, West side)			
BOREHOLE DIAMETER:			GROUND SURFACE ELEVATION: 18.498 feet			REMARKS:			
DRILL RIG: 7720 DT Geoprobe			CASING ELEVATION: 18.251 feet						
CONTRACTOR: Steadfast Drilling			START CARD/TAG ID: NA			NORTHING: 205094.501			
LOGGED BY: J. Perkins			DRILLING DATES: 8/11/2022 - 8/11/2022			EASTING: 1273344.644			

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LOG OF BORING
KMW-12

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