



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
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February 19, 2014

Mr. Robert Stetson
Kelly-Moore Paint Company
105 Elmira Road, Suite 300
Vacaville, CA 95687

Re: Opinion Pursuant to WAC 173-340-515(5) on Proposed Monitored Natural Attenuation Work Plan for the Following Hazardous Waste Site:

- **Name:** Kelly-Moore Paint Co
- **Address:** 5410 Airport Way South, Seattle, WA
- **Facility/Site No.:** 2163
- **VCP No.:** NW2305
- **Cleanup Site No.:** 5064

Dear Mr. Stetson:

Thank you for submitting documents regarding your proposed remedial action for the Kelly-Moore Paint Co (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site:

- Gasoline range petroleum hydrocarbons (TPH-g), lube oil (TPH-o), naphthalene, carcinogenic polyaromatic hydrocarbons (cPAHs), toluene, ethylbenzene, xylenes, arsenic, chromium, and lead to soil and groundwater.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does



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not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed Monitored Natural Attenuation (MNA) Work Plan:

1. Monitored Natural Attenuation Work Plan, dated November 2013, prepared by AMEC Environmental & Infrastructure, Inc. (AMEC).
2. Remedial Investigation and Feasibility Study Former Kelly-Moore Manufacturing Study, dated October 2011, prepared by AMEC.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at (425) 649-7235 or sending an email to nwro_public_request@ecy.wa.gov.

The Site is defined by the extent of contamination caused by the following release(s):

- Gasoline range petroleum hydrocarbons (TPH-g), lube oil (TPH-o), naphthalene, carcinogenic polyaromatic hydrocarbons (cPAHs), toluene, ethylbenzene, xylenes, arsenic, chromium, and lead to soil and groundwater.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site, Ecology has determined:**

Ecology has reviewed the reports cited above and has the following comments.

- The proposed Interim Action which was approved by Ecology in a letter dated April 3, 2012, has not been performed to date. Hot-spot dual-phase vacuum extraction (DPVE) to reduce concentrations of TPH-g in selected areas of the central and north areas has not commenced. Biosparging to reduce lower concentrations of TPH-g in the remaining portions of the central and north areas has also not commenced.
- At this time data, concerning the effectiveness of the DPVE and biosparging has not been generated. Ecology will require one year of data to be collected and analyzed in order to determine if this remedial action will likely be sufficient to remediate TPH throughout the Site.
- The nature and extent of soil contamination within the Property has not been fully characterized.

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- The nature and extent of the groundwater contamination has not been fully characterized. The groundwater plume extends beyond the Property boundary to the south-southwest (Airport Way South) as depicted in figure 9, and possibly to the north (BNSF Railroad property) as depicted in Figure 8.
- If Kelly-Moore Paint Company wishes to pursue a Property-specific NFA, conditional points of compliance will be necessary as close to the property boundary as practical. Your proposed locations for monitoring wells KMW-07 and KMW-08 (Figure 12) will not fulfill this requirement.
- At this time Ecology cannot approve of your Monitored Natural Attenuation Work Plan. Insufficient data has been collected in characterizing the nature and extent of the site and interim actions approved by Ecology have not been performed.
- The MNA work plan should have included an analysis and discussion of the baseline primary and secondary geochemical indicator compounds that were analyzed for in the Site monitoring wells in 2013 and provided in Table 1 in the Appendix.
- Table 1 of Appendix A indicates that manganese was analyzed for and detected in the June 2013 sampling round, albeit, manganese is not listed as a secondary geochemical indicator in Table 3. Why is manganese not included as a parameter for demonstrating MNA?
- Figure 8 depicts two separate unbounded gasoline plumes, in the vicinity of KMW-02 and your proposed new monitoring well KMW-06 as shown in Figure 12. Until these two plumes are bounded it is not known if these wells will be sufficient for data collection requirements of MNA. However, these monitoring wells can be used as a starting point for MNA data collection.
- Your proposed locations for monitoring wells KMW-07 and KMW-08 may not be sufficient in scope in data collection for MNA, additional monitoring wells due north of these locations may be necessary. However, these monitoring wells can be used as a starting point for MNA data collection.
- Three different groundwater flow directions are provided in the work plan: west, west-southwest and southwest. One round (March 2011) is insufficient to confirm the previous (2003) estimated groundwater flow directions.
- On Figure 4, no groundwater elevation is plotted for KM-02 and it is not provided in the report.
- At the north end of the Property, TCE and vinyl chloride were detected in groundwater in soil borings KM-16 and KM-17 at concentrations exceeding Method A cleanup levels. AMEC states that additional sampling has shown that the extent is limited and may be an offsite source. This groundwater plume has not been fully characterized and adequate characterization of VOCs at the Site has not been sufficient to demonstrate that the VOCs have not comeingled with the gasoline plume.

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- Ecology does acknowledge that Kelly Moore has performed extensive source removal through the UST removal and soil excavation performed prior to the RI/FS, and this source removal is the potential driver for the decline in groundwater concentrations of Site chemicals of concern. Ecology concurs that by implementing data collection described in the work plan, Kelly-Moore may be able to reduce the area of the Site that requires active subsurface treatment beyond the planned excavations.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-4446 or email at damy461@ecy.wa.gov.

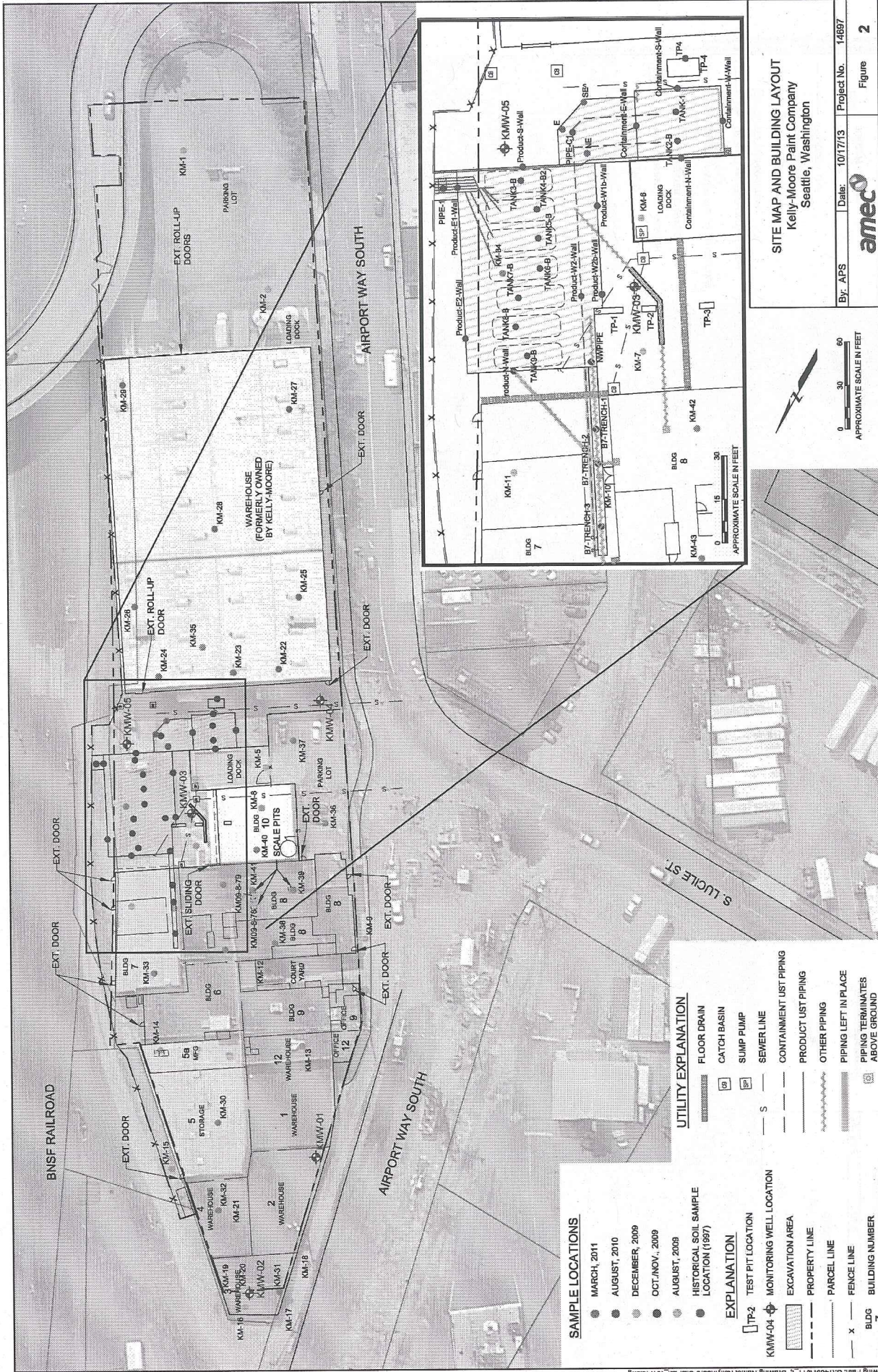
Sincerely,



Dale Myers
Site Manager

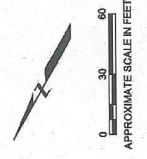
Enclosures: Site maps

cc: Natasya Gray, AMEC Geomatrix



SITE MAP AND BUILDING LAYOUT
 Kelly-Moore Paint Company
 Seattle, Washington

By: APS | Date: 10/17/13 | Project No. 14697
 Figure 2



UTILITY EXPLANATION

- FLOOR DRAIN
- CATCH BASIN
- SUMP PUMP
- SEWER LINE
- CONTAINMENT LIST PIPING
- PRODUCT LIST PIPING
- OTHER PIPING
- PIPING LEFT IN PLACE
- PIPING TERMINATES ABOVE GROUND

SAMPLE LOCATIONS

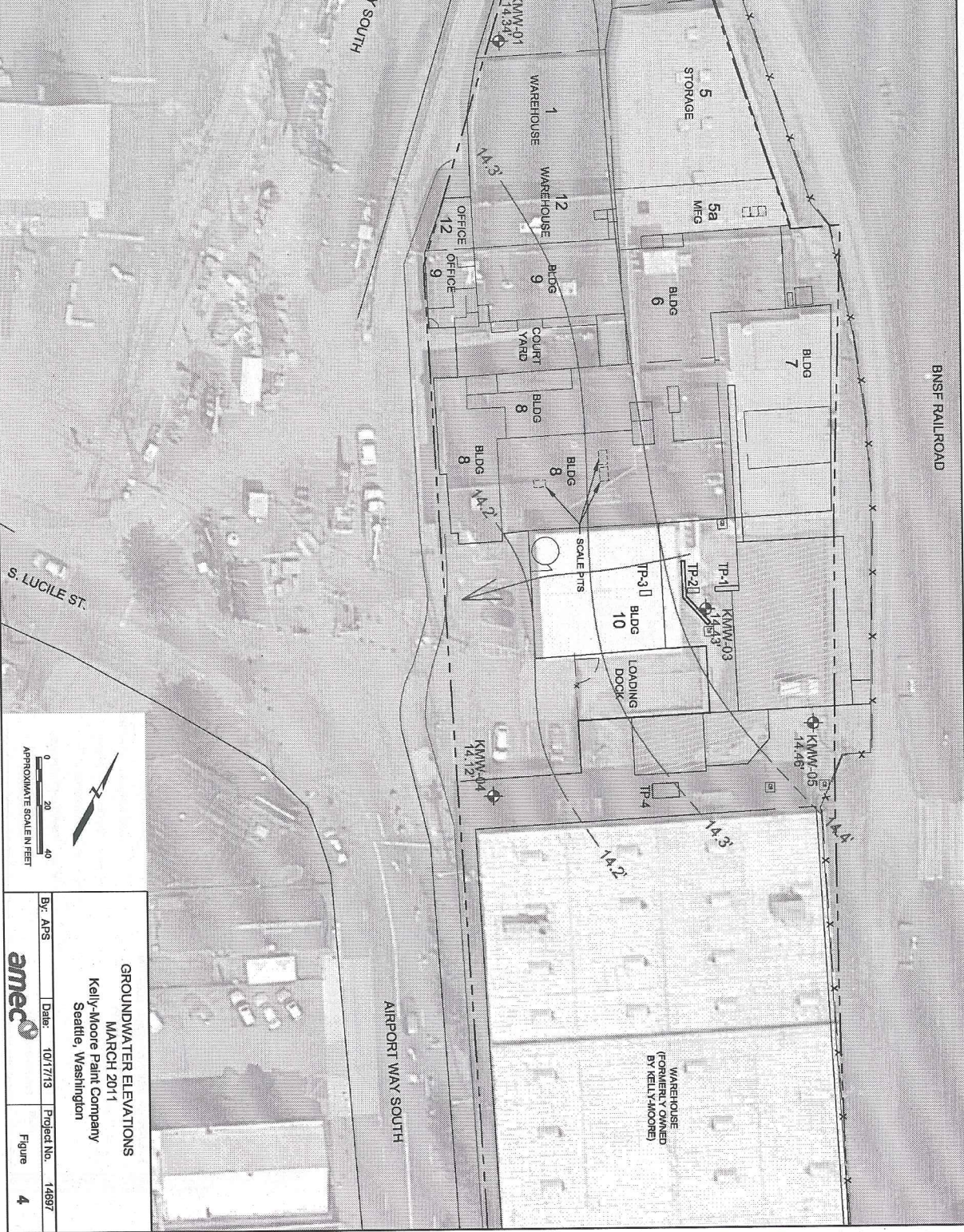
- MARCH, 2011
- AUGUST, 2010
- DECEMBER, 2009
- OCT-NOV., 2009
- AUGUST, 2009
- HISTORICAL SOIL SAMPLE LOCATION (1997)

EXPLANATION

- TP-2 TEST PIT LOCATION
- MONITORING WELL LOCATION
- EXCAVATION AREA
- PROPERTY LINE
- PARCEL LINE
- FENCE LINE
- BLDG. BUILDING NUMBER

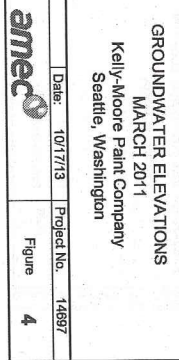
EXPLANATION

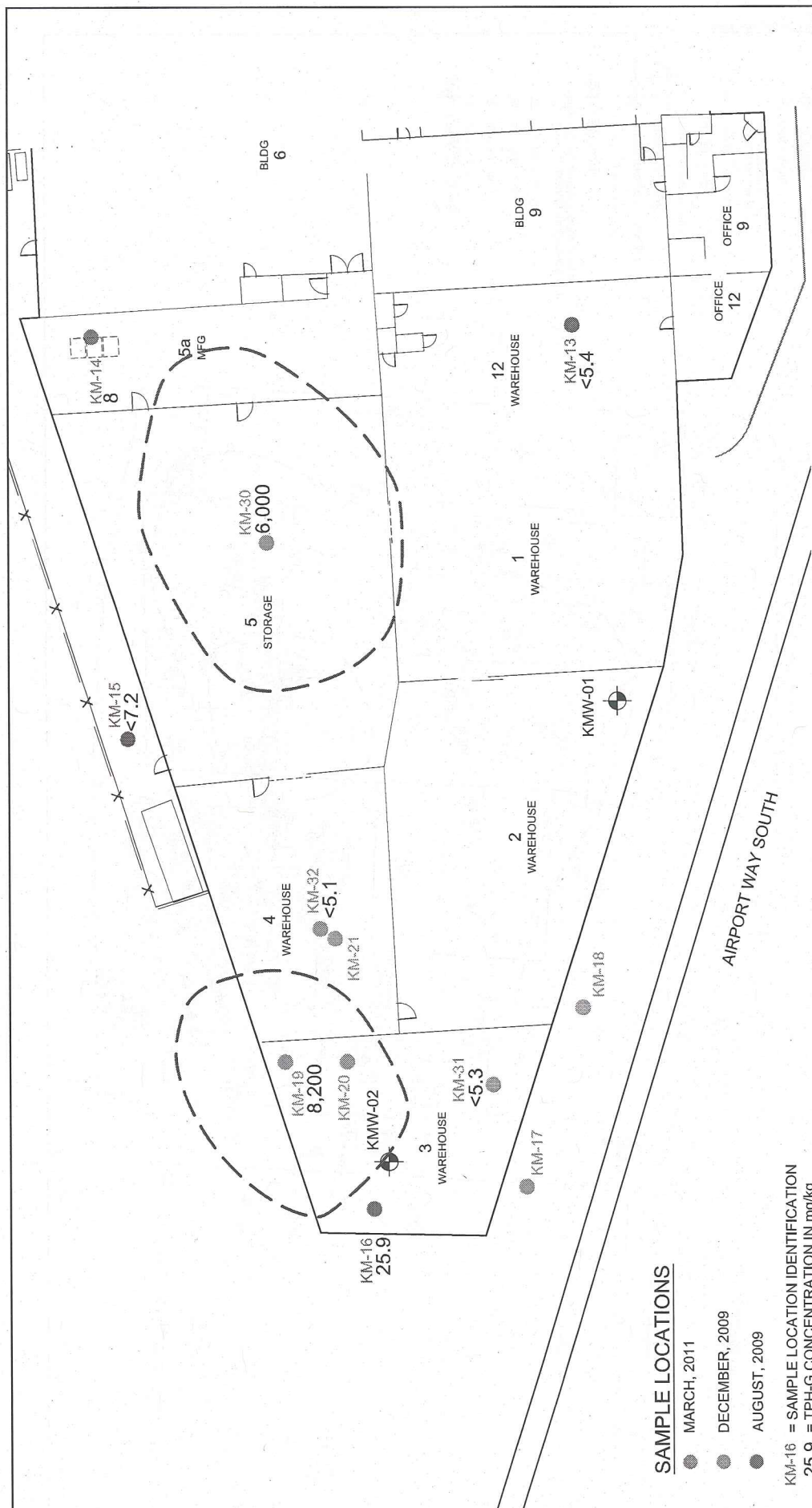
- KMW-01 MONITORING WELL LOCATION
- 14.34' GROUNDWATER ELEVATION DATA (MARCH 2011)
- GROUNDWATER ELEVATION CONTOUR (MARCH 2011)
- GROUNDWATER FLOW DIRECTION
- TP-2 TEST PIT LOCATION
- EXCAVATION AREA
- CATCH BASIN
- PROPERTY LINE
- FENCE LINE
- BLDG BUILDING NUMBER



0 20 40
 APPROXIMATE SCALE IN FEET

GROUNDWATER ELEVATIONS	
MARCH 2011	
Kelly-Moore Paint Company Seattle, Washington	
By: AFS	Date: 10/17/13
Project No. 14697	Figure 4





SAMPLE LOCATIONS

- MARCH, 2011
- DECEMBER, 2009
- AUGUST, 2009

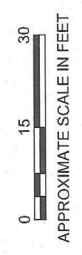
KM-16 = SAMPLE LOCATION IDENTIFICATION
25.9 = TPH-G CONCENTRATION IN mg/kg

EXPLANATION

- x — FENCE LINE
- BLDG 9 BUILDING NUMBER
- KMW-01 MONITORING WELL LOCATION
- APPROXIMATE AREA IMPACTED ABOVE CLEAN-UP LEVEL

NOTES:

1. SEE TABLE 9-4 FOR SAMPLE DEPTHS.
2. 6000 HIGHEST GASOLINE CONCENTRATIONS IN SOIL (MILLIGRAMS PER KILOGRAMS (mg/kg).)

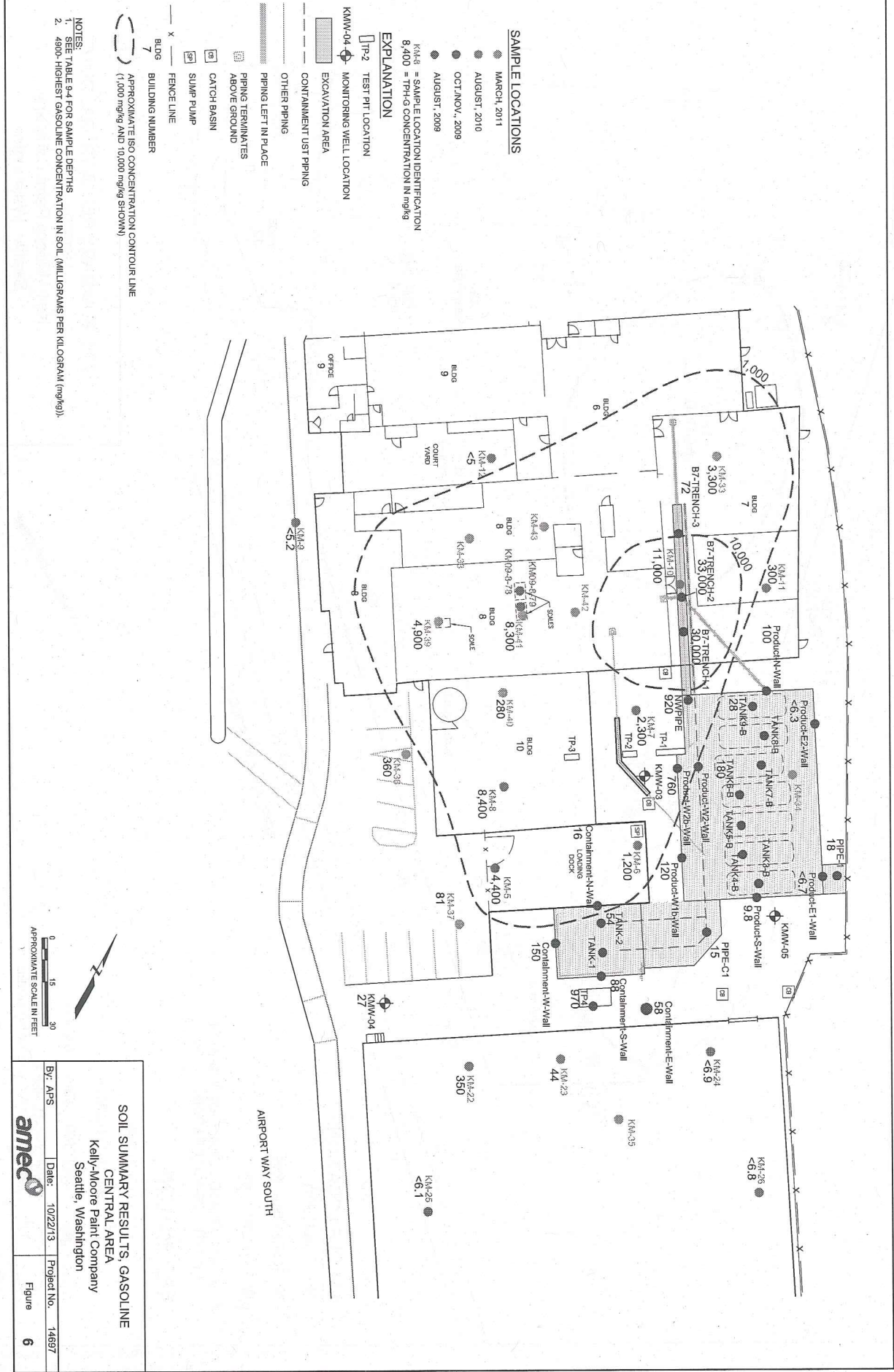


**SOIL SUMMARY RESULTS, GASOLINE
NORTH AREA**
Kelly-Moore Paint Company
Seattle, Washington

By: APS Date: 10/22/13 Project No. 14697



Figure 5



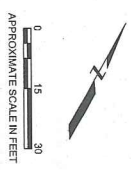
SAMPLE LOCATIONS

- MARCH, 2011
- AUGUST, 2010
- OCT/NOV, 2009
- AUGUST, 2009

EXPLANATION
 KM-# = SAMPLE LOCATION IDENTIFICATION
 8,400 = TPH-G CONCENTRATION IN mg/kg

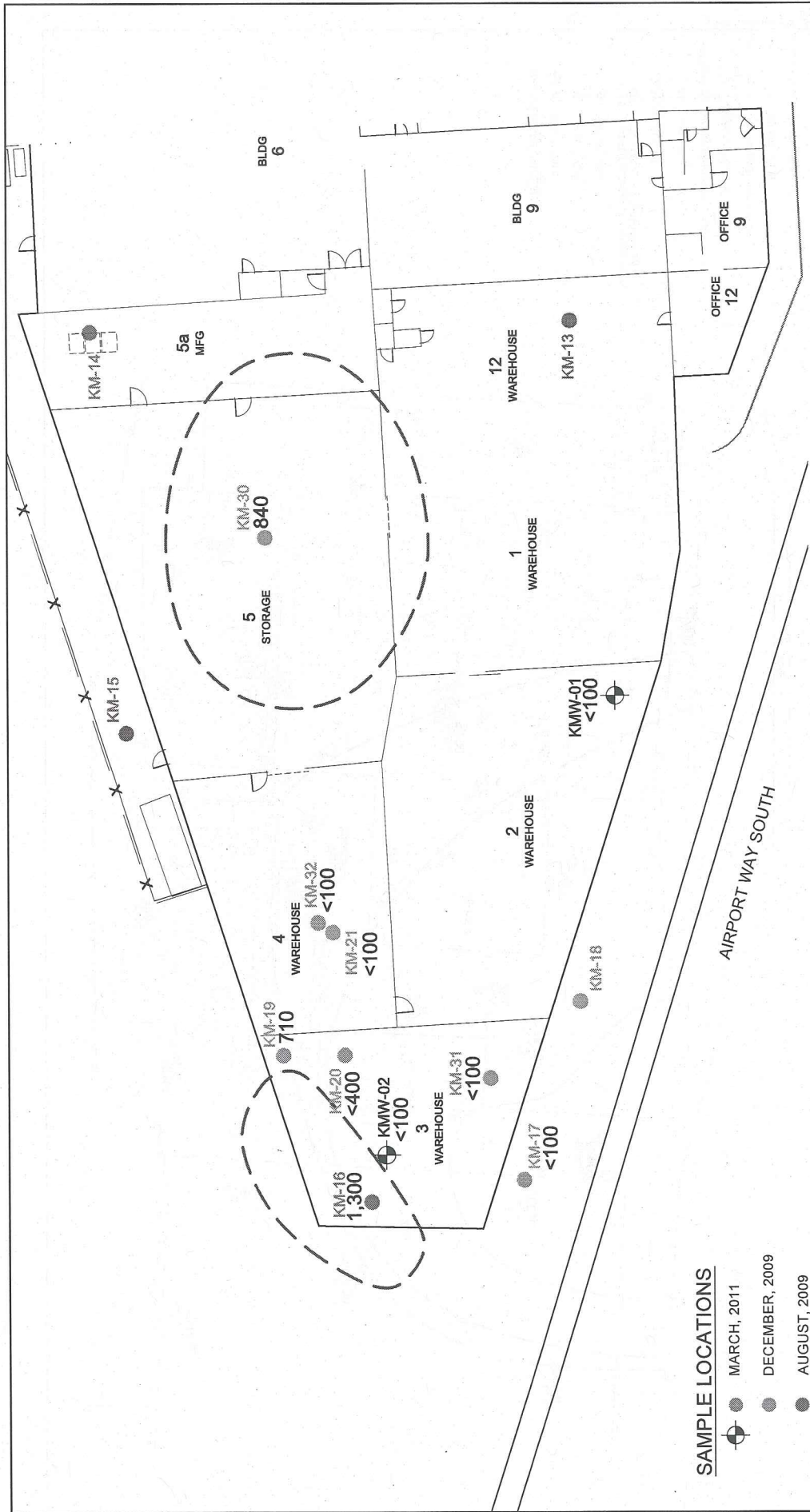
- TP-# TEST PIT LOCATION
- KMW-# MONITORING WELL LOCATION
- ▭ EXCAVATION AREA
- CONTAINMENT LIFT PIPING
- OTHER PIPING
- PIPING LEFT IN PLACE ABOVE GROUND
- CATCH BASIN
- SLUMP PUMP
- FENCE LINE
- BLDG BUILDING NUMBER
- APPROXIMATE ISO CONCENTRATION CONTOUR LINE (1,000 mg/kg AND 10,000 mg/kg SHOWN)

- NOTES:**
1. SEE TABLE 94 FOR SAMPLE DEPTHS
 2. 4800 HIGHEST GASOLINE CONCENTRATION IN SOIL (MILLIGRAMS PER KILOGRAM (mg/kg))



SOIL SUMMARY RESULTS GASOLINE			
CENTRAL AREA			
Kelly-Moore Paint Company			
Seattle, Washington			
BY: AFS	Date: 10/22/13	Project No. 14697	Figure 6

AIRPORT WAY SOUTH



SAMPLE LOCATIONS

- MARCH, 2011
- DECEMBER, 2009
- AUGUST, 2009

KM-16 = SAMPLE LOCATION IDENTIFICATION
 1,300 = TPH-G CONCENTRATION IN µg/L

EXPLANATION

- x — FENCE LINE
- BLDG 9 BUILDING NUMBER
- KMW-02 ● MONITORING WELL LOCATION
- (---) APPROXIMATE AREA IMPACTED ABOVE CLEANUP LEVEL
- GROUNDWATER CONCENTRATIONS IN µg/L



**HISTORICAL GROUNDWATER
 SUMMARY RESULTS, GASOLINE
 NORTH AREA**
 Kelly-Moore Paint Company
 Seattle, Washington

By: APS	Date: 10/24/13	Project No. 14697
amec		Figure 8

- SAMPLE LOCATIONS**
- MARCH, 2011
 - AUGUST, 2010
 - AUGUST, 2009
- KM45 = SAMPLE LOCATION IDENTIFICATION
 290 = TPH-G CONCENTRATION IN PPT/L
- EXPLANATION**
- TP-2 TEST PIT LOCATION
 - KMW-04 MONITORING WELL LOCATION
 - EXCAVATION AREA
 - CONTAINMENT UST PIPING
 - OTHER HPING
 - PIPING LEFT IN PLACE
 - PIPING TERMINATES ABOVE GROUND
 - CATCH BASIN
 - SUMP PUMP
 - FENCE LINE
 - BUILDING NUMBER
- APPROXIMATE GROUNDWATER GASOLINE CONTOUR LINE
 (5,000 PPT/L, 10,000 PPT/L AND 50,000 PPT/L SHOWN.)



HISTORICAL GROUNDWATER
 SUMMARY RESULTS, GASOLINE
 CENTRAL AREA
 Kelly-Moore Paint Company
 Seattle, Washington

By: APS Date: 10/24/13 Project No. 14687
 Figure 9

ameco