Aufman, Matt

From: Oliphant, Dave <DAVE.OLIPHANT@aecom.com>
Sent: Monday, April 28, 2014 3:03 PM
To: Assefa, Hanna
Cc: Oliphant, Dave; Law, Mciver; Overgord, Jesse; Aufman, Matt
Subject: RE: Vapor Intrusion risk evaluation-: Ardee Translite Shelby, NC

Thank you for the review, Hannah. We just spoke with Matt and we are planning to collect subslab soil gas samples at both locations next week.

From: Assefa, Hanna [mailto:hanna.assefa@ncdenr.gov]
Sent: Monday, April 28, 2014 3:00 PM
To: Aufman, Matt
Cc: Oliphant, Dave
Subject: RE: Vapor Intrusion risk evaluation-: Ardee Translite Shelby, NC

Matt, MW-4 concentrations for trichloroethene in May 2013 are high. The levels came down to an acceptable level in October 2013. I am not sure enough samples over significant time period have been collected to confirm levels are permanently down. Soil gas samples are recommended. Also I do not see on the diagram if the area under the building has been evaluated for VI. The concentrations of contaminants in MW-2 are also not stable between the sample events however, they do pass site specific screens. May be repeat sampling is in order.

om: Aufman, Matt
Sent: Tuesday, April 15, 2014 4:00 PM
To: Assefa, Hanna
Cc: Oliphant, Dave (DAVE.OLIPHANT@aecom.com)
Subject: Vapor Intrusion risk evaluation-: Ardee Translite Shelby, NC

Hi Hanna-
See below for a VI risk request. A site map and table with the GW concentrations is attached. Let me know if you have any questions.
Thanks,
Matt

Matthew Aufman
Phone: (919) 707-8348
http://portal.ncdenr.org/web/wm/sf/ihs/recprogram

From: Oliphant, Dave [mailto:DAVE.OLIPHANT@aecom.com]
Sent: Tuesday, April 15, 2014 3:35 PM
To: Aufman, Matt
Cc: Oliphant, Dave; Overgord, Jesse
Subject: RE: Ardee Translite Shelby, NC and Vapor Intrusion Questions

Matt,

Thank you for your conversation earlier today.

We have the following exceedences of the Groundwater Screening Level for 2013 data:

a. Well MW-2 for 1,1-dichloroethene: Reported values are 62, 69, 165, 233, and 160 ug/L (Screening level is 164 ug/L)

b. Well MW-2 for TCE: 2.7, 3.2, 7.5, 8.7, 7.3 and 9 ug/L (Screening value is 4.35 ug/L)
c. Well MW-4 for TCE: Reported values are 15.3, 23.6, and 1.3 (Screening value is 4.35 ug/L)

I have attached all the data for these two wells where there is a detect and a groundwater screening value, in the attached table. I have also attached a map showing the TCE plumes in the areas of those two wells. Vertically and horizontally, we have the TCE plume delineated.

As indicated we exceed the groundwater screening value but by less than one order of magnitude. We are in very tight saprolite material with no obvious preferential pathways from the wells to the manufacturing building, which is 126,000 sq. feet and is a light manufacturing building. Groundwater is 20-25 feet below ground surface. We are in the Piedmont of North Carolina.

Please proceed with the risk screening, using these values. I will follow up with you in two weeks before we go to the field.

Thank you, and let me know if you need anything else.

Dave Oliphant, RSM
AECOM
864-380-6950

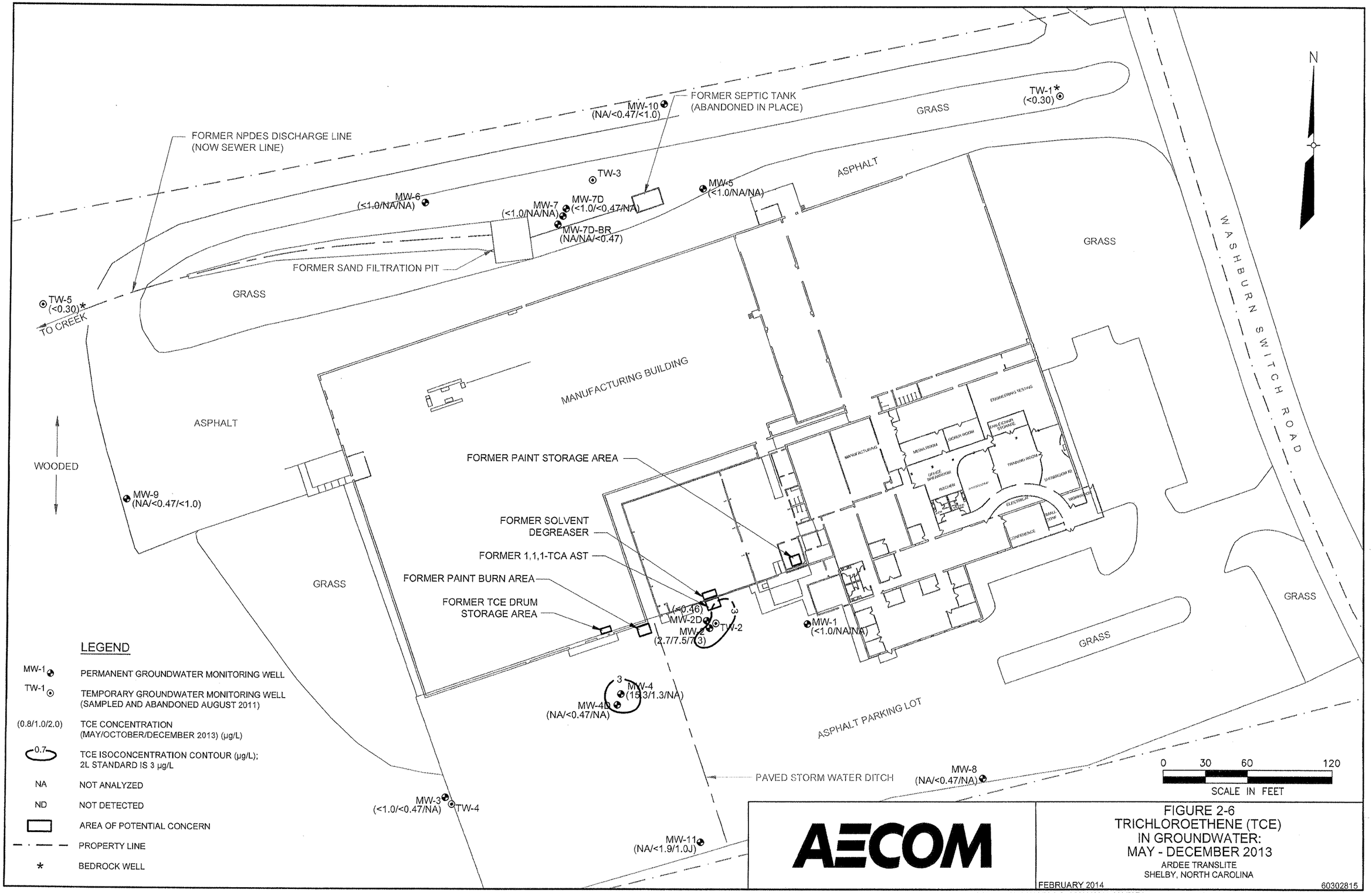
Table 1
Summary of Groundwater Analytical Data (2013) — Exceedances of GWSLs
Ardee Translite, Wells MW-2 and MW-4 (only wells with exceedences within 200 feet of building)
Shelby, North Carolina

Sample Location Date Collected Laboratory Sample ID Screened Interval (Feet bgs)	GWSL for Vapor Intrusion	MW-2 05/09/13 92157594021 24.7-34.7	MW-2-a 05/09/13 92157594022 24.7-34.7	MW-2 10/29/13 92177599007 24.7-34.7	MW-2-a (dup) 10/29/13 92177599009 24.7-34.7	MW-2 12/16/13 OL19001-007 24.7-34.7	MW-2-b (split) 12/16/13 3120327-04 24.7-34.7
VOCs by Method 8260B (ug/L)							
1,1,2-Trichloroethane	5.2	< 0.29	< 0.29	< 0.58	< 0.58	**0.31 J//**	< 0.5
1,1-Dichloroethane	334	**1.3**	**1.5**	**2.5**	**2.8**	**2.1**	**2.3**
1,1-Dichloroethene	164	**62.9**	**69.4**	**165**	**233**	**150**	**160**
1,2-Dichloroethane	97.8	**1.3**	**1.5**	**10.8**	**11.9**	**6.1**	**6.7**
Benzene	69.3	< 0.25	< 0.25	< 0.5	< 0.5	**0.3 J//**	< 0.5
Chloroform	35.5	**9.5**	**9.5**	**4.3**	**4.9**	**7.7**	**7.7**
cis-1,2-Dichloroethene	NS	< 0.19	< 0.19	< 0.38	< 0.38	**0.4 J//**	< 0.5
Tetrachloroethene	48.4	**5.1**	**5.7**	**11.2**	**14.2**	**12**	**19**
Trichloroethene	4.35	**2.7**	**3.2**	**7.5**	**8.7**	**7.3**	**9**
Vinyl chloride	—	< 0.62	< 0.62	< 1.2	< 1.2	< 1	< 0.5
Mercury	0.000563	NA	NA	**0.00014 J/B/K**	**0.00013 J/B/K**	NA	NA
Xylenes (total)	414	< 0.66	< 0.66	< 1.3	< 1.3	< 1	< 3

Sample Location Date Collected Laboratory Sample ID Screened Interval (Feet bgs)	GWSL for Vapor Intrusion	MW-4 05/09/13 92157594017 24.7-34.7	MW-4-a (dup) 05/09/13 92157594018 24.7-34.7	MW-4 10/29/13 92177599005 24.7-34.7
VOCs by Method 8260B (ug/L)				
1,1,2-Trichloroethane	5.2	< 0.29	< 0.29	< 0.29
1,1-Dichloroethane	334	< 0.32	< 0.32	< 0.32
1,1-Dichloroethene	164	**12.7**	**20.7**	**20.3**
1,2-Dichloroethane	97.8	< 0.12	< 0.12	< 0.12
Benzene	69.3	< 0.25	< 0.25	< 0.25
Chloroform	35.5	< 0.14	**1.5**	< 0.14
cis-1,2-Dichloroethene	NS	< 0.19	< 0.19	< 0.19
Tetrachloroethene	48.4	< 0.46	< 0.46	< 0.46
Trichloroethene	4.35	**15.3**	**23.6**	**1.3**
Vinyl chloride	—	< 0.62	< 0.62	< 0.62
Mercury	0.000563	NA	NA	**0.00014 J/B/K**
Xylenes (total)	414	< 0.66	< 0.66	< 0.66

Notes:
Bold font and shading indicate the analyte was detected.
Bold outline indicates the concentration exceeds the NC Division of Waste Management Non-Residential Vapor Intrusion Groundwater Screening Level (January 2014).
— indicates either the GWSL is not included on this table (non-detected constituents) or is not applicable

The GWSL for m-xylene is used as a surrogate value for m&p-xylene.
The GWSL for elemental mercury is used as a surrogate value for mercury.
"-a" in the Sample Location field indicates a field duplicate.
"-b" in the Sample Location field indicates a split sample analyzed by a separate laboratory.
GWSL - Groundwater screening level.
NA - Not Analyzed
NS - No Standard
µg/L - micrograms per liter (parts per billion)
VOC - Volatile organic compound



AECOM

FIGURE 2-6
TRICHLOROETHENE (TCE)
IN GROUNDWATER:
MAY - DECEMBER 2013
ARDEE TRANSLITE
SHELBY, NORTH CAROLINA

FEBRUARY 2014 60302815

L:\Projects\60241001\9.0 Cadd\60302815_032 TCE Isoconcentrations May-Dec 2013.dwg, 2/6/2014 8:12:12 AM, stubblefieldr