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February 8, 2018

Mr. Matthew Hubicki
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York, 12233-7017

Re: Polychrome Research and Development (R&D) Lab Site (Polychrome West Site)
137-145 Alexander Street, Yonkers, NY 10701
BCP Site: C360099
Monitoring Well Abandonment Workplan

Dear Mr. Hubicki:

On behalf of Avalon Yonkers Sun Sites, LLC (Avalon), AKRF, Inc. (AKRF) has prepared this Monitoring Well Abandonment Workplan (Workplan) for New York State Department of Environmental Conservation (NYSDEC) review.

Demolition of the current building structure at the Polychrome West (PW) Site is scheduled for early February. As part of the redevelopment plan and outlined within the PW Remedial Action Work Plan (RAWP), the grade of the Site must be brought up by approximately 3 to 5 feet above the existing grade. The upcoming demolition work and subsequent grading/import needed to bring the Site up to the appropriate grade requires the abandonment of the current Site groundwater monitoring well network with the exception of MW-17S and MW-18S. Avalon will attempt to keep MW-17S and MW-18S functional as sentinel groundwater monitoring wells; however, if preservation of the wells is deemed infeasible during remedial work and/or construction of the shoreline improvements and esplanade, MW-17S and MW-18S will be abandoned in accordance with this Workplan.

On January 22, 2018, AKRF gauged and assessed the known groundwater and non-aqueous phase liquid (NAPL) monitoring wells at the Site. The enclosed Table 1 has the results of this assessment. No measurable product was recorded with the exception of dense non-aqueous phase liquid (DNAPL) in NAPL monitoring well RW-83. The DNAPL was evacuated from RW-83 on January 24, 2018 and assessed for transmissivity in general accordance with the August 16, 2017 Pre-Design Investigation (PDI) submitted by Paulus, Sokolowski and Sartor Engineering, PC. No measurable DNAPL was observed after the January 24, 2018 removal event at RW-83 (Table 2).

Well abandonment will be completed in accordance with the NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy. The anticipated well decommissioning method will be grouting-in-place utilizing a tremie pipe with the exception of MW-5 which is damaged and appears to be caved in and RW-83 which will be over-drilled. No further action is proposed for MW-5 as the well and surrounding area are included within a proposed excavation area (Excavation Area H) of the PW RAWP. If the grouting-in-place method is not a feasible abandonment method for the remaining monitoring wells

(including the wells that were inaccessible or covered during the January 22, 2018 well survey), then the monitoring wells will be abandoned by the over-drilling method.

AKRF requests approval to complete well abandonment activities at the Site during the week of February 19, 2018. NAPL and sentinel groundwater monitoring wells for Site Management activities will be installed in accordance with the PW RAWP. As stated in the PW RAWP, final locations and quantities of NAPL monitoring wells for Site Management will be determined in consultation with NYSDEC following remedial activities. The current version of the PW RAWP calls for three sentinel wells and 16 NAPL monitoring wells.

If you have any questions, comments or concerns regarding this Workplan, please reach out to either myself at (914) 922-2387 or Marc Godick and (914) 922-2356.

Sincerely,
AKRF Engineering, P.C.

Patrick McHugh, P.E.
Environmental Engineer

Encl.: Figure 1 – Site Map
Table 1 – January 2018 Monitoring Well Gauging Event
Table 2 – RW-83 Recovery Measurements

cc (electronic copy only): David Crosby - NYSDEC
Aaron Levy – Avalon Bay
Barry White – Avalon Bay
Grant Jaber – Avalon Bay
John Fitzpatrick – Avalon Bay
Jon Lariviere – Avalon Bay
Robert Acampora – Avalon Bay
Marc Godick – AKRF

ALEXANDER STREET

ASHBURTON AVENUE

ATI TANK FARM
NYSDEC SITE
C360090

EXCELSIOR PROPERTY

HUDSON RIVER

RW-109

RW-83

No well installed

Current Site Groundwater Monitoring Wells

SOURCES:

1. BASEMAP DATA FROM CITY OF YONKERS PROPERTY RECORDS, SURVEY DATED 11/14/66, REVISED 11/14/85.
2. SOIL BORING, SOIL VAPOR PROBE AND MONITORING WELL LOCATIONS ARE APPROXIMATE AND WERE NOT SURVEYED.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

DRAFT

REV. / ISSUE	DATE	DESCRIPTION
1	05/02/2017	REVISED PER NYSDEC COMMENTS

Legend

- Existing Monitoring Well Location
- Proposed Soil vapor Investigation Location
- Historical Soil Investigation Location
- Historical Sediment Sample Location
- Approximate Site Boundary
- DNAPL Observed
- LNAPL Observed
- Historical Soil Vapor Investigation Location
- 2017 Soil Boring location
- Historical Soil And Groundwater Investigation Location
- 2007 Historical Soil Boring
- Historical uses at the Site
- Property line
- 2017 Shallow SRI Borings per NYSDEC Request
- 2017 Shallow SRI Monitoring Well and Shallow SRI Boring per NYSDEC Request
- 2017 SVI Soil Vapor Investigation Point and Shallow Soil Boring per NYSDEC Request
- Decontamination Pad

DNAPL Dense Non-Aqueous Phase Liquid
ft Feet
LNAPL Light Non-Aqueous Phase Liquid
mg/kg milligrams per kilogram
MW Monitoring Well
SB Soil Boring
ug/L micrograms per Liter

PAULUS, SOKOLOWSKI AND SARTOR, LLC.
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P.O. BOX 4039
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700
CERTIFICATE OF AUTHORIZATION NO. 24GA28032700

CLIENT

AVALON YONKERS SUN SITES, LLC.

PROJECT

POLYCHROME WEST
NYSDEC SITE
NUMBER: C360099

CITY OF YONKERS,
WESTCHESTER COUNTY, NEW YORK

SHEET TITLE

POLYCHROME WEST REMEDIAL INVESTIGATION COMPILATION PLAN

PROJECT NO.: 03102-0006
DATE:
DRAWN BY: FM
CHECKED BY: JSM
SCALE:

BINDING ORDER:
SHEET OF
SHEET NO.

FIGURE 3

FIGURE SRI-1

AKRF

Table 1 - January 2018 Monitoring Well Gauging Event

MW Gauging List

Job No:	180017	**Client:**	AvalonBay
Project Location:	Yonkers, NY	**Gauged By:**	J. Menken
Date:	1/22/2018		

Monitoring Well Name	Time	Depth to LNAPL (Ft.)	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	LNAPL Thickness (Ft.)	DNAPL Thickness (Ft.)	Comments (problems, odor, sheen)
MW-1	9:20	NA	4.21	NA	10.50	NA	NA	Missing cover
MW-2	10:40	NA	3.11	NA	16.11	NA	NA	
MW-3	Covered							
MW-4	9:15	NA	4.92	NA	17.21	NA	NA	
MW-5	Damaged/Caved in							
MW-6	8:15	NA	7.48	NA	15.96	NA	NA	
MW-7	9:50	NA	6.16	NA	16.94	NA	NA	
MW-8	10:00	NA	5.26	NA	15.43	NA	NA	
MW-10	8:45	NA	2.48	NA	123.40	NA	NA	
MW-11I	9:30	NA	3.73	NA	64.01	NA	NA	
MW-11D	9:35	NA	2.42	NA	99.67	NA	NA	Naphthalene odor
MW-12I	8:20	NA	1.21	NA	65.16	NA	NA	
MW-12D	8:20	NA	1.75	NA	116.23	NA	NA	
MW-13I	10:20	NA	2.85	NA	68.14	NA	NA	
MW-13D	10:30	NA	0	NA	136.37	NA	NA	
MW-14I	Covered							
MW-14D	11:00	NA	0	NA	152.34	NA	NA	
MW-15	8:05	NA	4.28	NA	8.75	NA	NA	
MW-16I	Covered							
MW-16D	Covered							
RW-83	11:20	NA	4.34	22.68	25.88	NA	3.2	Sheen observed
RW-109	11:35	NA	11.08	NA	23.34	NA	NA	Naphthalene odor
MW-17S	11:15	NA	6.38	NA	15.5	NA	NA	
MW-18S	11:10	NA	6.96	NA	17.82	NA	NA	

Table 2 - RW-83 Recovery Measurements

Job No:	180017	**Client:**	AvalonBay
Project Location:	Yonkers, NY	**Gauged By:**	J. Menken/S. Schmid
Date:	1/24/2018 through **2-Jan**	**Pump Method:**	Peristaltic **Volume of DNAPL removed:** ~2.5 gallons

Date	Time (EST)	Time Elapsed (Minutes)	Depth to LNAPL (Ft.)	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	LNAPL Thickness (Ft.)	DNAPL Thickness (Ft.)	Comments (problems, odor, sheen)
1/24/2018	8:30	NA	ND	4.25	22.60	26.15	ND	3.55	4-inch well with 3.55 ft of DNAPL thickness yields product column of 2.31815 gallons which is approximately equivalent to amount of product recovered. Note well is equipped with a 1-foot sump at terminus. Well fully evacuated at 10:50 am on January 24, 2018.
1/24/2018	10:50	0	ND	4.40	ND	26.15	ND	ND	
1/24/2018	10:52	2	ND	4.40	ND	26.15	ND	ND	
1/24/2018	10:54	4	ND	4.40	ND	26.15	ND	ND	
1/24/2018	10:56	6	ND	4.40	ND	26.15	ND	ND	
1/24/2018	10:58	8	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:00	10	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:02	12	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:04	14	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:20	30	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:35	45	ND	4.40	ND	26.15	ND	ND	
1/24/2018	11:50	60	ND	4.40	ND	26.15	ND	ND	
1/24/2018	12:05	75	ND	4.40	ND	26.15	ND	ND	
1/24/2018	12:20	90	ND	4.40	ND	26.15	ND	ND	
1/24/2018	12:35	105	ND	4.40	ND	26.15	ND	ND	
1/24/2018	12:50	120	ND	4.40	ND	26.15	ND	ND	
1/24/2018	14:00	190	ND	4.24	ND	26.15	ND	ND	
1/24/2018	15:25	275	ND	4.22	ND	26.15	ND	ND	
1/25/2018	7:40	1250	ND	4.50	ND	26.15	ND	ND	
1/25/2018	10:00	1390	ND	4.62	ND	26.15	ND	ND	
1/25/2018	13:00	1570	ND	4.60	ND	26.15	ND	ND	
1/25/2018	15:00	1690	ND	4.62	ND	26.15	ND	ND	
1/26/2018	9:20	2790	ND	4.50	ND	26.13	ND	ND	
1/26/2018	15:15	3145	ND	4.54	ND	26.13	ND	ND	
1/29/2018	9:20	7110	ND	4.22	ND	26.13	ND	ND	
1/29/2018	13:30	7360	ND	4.26	ND	26.13	ND	ND	