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MEMO

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From:

Andrew Enigk, ARCADIS

Date:

May 6, 2015

ARCADIS Project No.:

B0032305.2013

Subject:

Bayer MaterialScience LLC
125 New South Road, Hicksville, New York
Phase 2 Operable Unit 4 Remedial Activities
Progress Report #25 (April 27, 2015 – May 1, 2015)

This memorandum summarizes work performed from April 27, 2015 through May 1, 2015 in connection with the Phase 2 Operable Unit 4 (OU4) remedial activities at the above-referenced Site. The remedial activities are being implemented by Bayer MaterialScience LLC's (Bayer's) remedial contractor (Posillico) with onsite construction/engineering oversight provided by ARCADIS. The work activities during the reporting period were as observed by Charles Atanasio of ARCADIS.

SAFETY/SAFE WORK PRACTICES

No incidents have occurred this week and work has proceeded safely (with no injuries over the 120 days of work completed project-to-date).

COMPLETED WORK / WORK-IN-PROGRESS

Work activities performed by Posillico and its subcontractors during this period consisted of the following:

- Continuing to perform post-backfill and soil cover system topographic survey activities.

- Collecting samples to characterize an additional 2,000 cubic yards (CY) of general fill (run-of-bank sand/gravel) from the offsite clean fill source (Beth Moses Cemetery [BMC] located in West Babylon, New York) on April 27, 2015. Posillico collected two sample sets (each representing 1,000 CY of backfill), including one composite sample for semi-volatile organic compounds (SVOCs), inorganics, polychlorinated biphenyls (PCBs), and pesticides, and two discrete samples for volatile organic compounds (VOCs) in accordance with the sampling requirements in Table 5.4(e)10 of the New York State Department of Environmental Conservation (NYSDEC) document titled, "DER-10 Technical Guidance for Site Investigation and Remediation" (DER-10). Posillico submitted the fill samples to York Analytical Laboratories, Inc. for analysis. This new sample set and previous samples provide characterization data for up to 36,000 CY of general fill. ARCADIS will forward the analytical results to the NYSDEC following receipt from the laboratory and preparation of an updated data table (results were received by the laboratory on May 1, 2015).
- Continuing installation of the site-wide soil cover system and demarcation layer below the system. Approximately 248 CY of general fill was placed during this reporting period to establish the 8-inch base layer of the soil cover system, and 2,726 CY of imported topsoil was placed during this reporting period to establish the 4-inch top layer of the soil cover system. Based on field measurements (unconfirmed by survey), approximately 62% of the design volume of soil cover system general fill and 81% of the design volume soil cover system topsoil were completed by the end of this reporting period.
- Completing the Chemical Waste Management [CWM] Chemical Services LLC - Model City, New York waste profile form for the drummed frac tank sediment. Bayer executed the profile on May 4, 2015.
- Continuing washing of truck tires before trucks exit the Site each trip and cleaning of the street with a street sweeper every night after work activities are complete for the day.
- Continuing erosion/sedimentation control measures inspection, maintenance, and documentation.

ARCADIS submitted April 29, 2015 e-mail correspondence to the NYSDEC requesting approval of analytical data to import an additional 1,000 CY of general fill from BMC (for a project-to-date total of 34,000 CY) and an additional 2,000 CY of topsoil from the Pinelawn Cemetery located in Farmingdale, New York (for a project-to-date total of 10,000 CY). The NYSDEC provided verbal approval to import the above-identified fill/topsoil during a May 1, 2015 telephone conversation with ARCADIS.

Bayer and ARCADIS provided approval for Posillico to use crushed stone to restore the bottom of Sumps #3 and #4 in place of the general fill/topsoil (alone) to enhance stormwater infiltration from the sumps. The crushed stone combined with the general fill/topsoil will provide at least 12-inches of cover. This change was made because water was observed to be ponding in the sumps (i.e., as a result of recent heavy rainfall, a larger drainage area to the sumps than before construction, and a lower permeability for soil in

the bottom of the sumps than before construction), and such water would have required extensive pumping or postponing the placement of final topsoil cover and seeding/mulching.

PROPOSED WORK ACTIVITIES

Posillico's two-week "look ahead" schedule is included as Attachment A and summarized below:

- Continue importing general fill and topsoil.
- Continue backfilling excavations and conducting in-place compaction testing.
- Install erosion control matting along the side slopes of the rainwater runoff sumps after placement of topsoil.
- Continue installation of the site-wide soil cover system.
- Transport the drums containing sediment from the frac tank offsite for disposal.
- Coordinate with Verizon regarding the removal of the utility poles at the Site.
- Continue tire washing and street cleaning.
- Continue erosion and sedimentation control measures inspection, maintenance, and documentation.

ATTACHMENTS

- Attachment A: Posillico's Two-Week "Look Ahead" Schedule
- Attachment B: Weekly Site Photos
- Attachment C: Excavation/Backfilling Progress Table
- Attachment D: Soil Cover System Progress Figure

Please notify Mr. Andrew Enigk of ARCADIS at 315.671.9548 within 5 days of receiving this memorandum if you believe that any portion of this summary does not accurately reflect work performed during the reporting period or if additional items should be recorded in this summary. If modifications are made, a revised memorandum will be distributed.

Attachment A

Two-Week Look Ahead Schedule

PROJECT : Bayer- Hicksville
 DATE/TIME: 5/5/2015

JOB #: 07042
 BY: Chris Hurst

	Activity Description & Location	LABOR	OPER	OTHER	Week of: 05/04/15					Week of: 05/11/15					EQUIPMENT/MATERIALS NEEDED	PROD RATE	ISSUES
					M	T	W	T	F	M	T	W	T	F		PER SHIFT	
																PLAN	
	Survey		1			x		x			x	x					
	import backfill material				x	x	x	x	x								
	Import topsoil								x		x	x	x	payloader			
	install erosion control blankets				x	x	x		x		x			John Deere 850 DZ. dirt roller			
	Install Site wide Cap- Fill and topsoil	3	2		x	x	x	x	x		x	x	x				
SUBCONTRACTOR	MTGroup - Compaction testing			1				x	x		x						
	HTC landscape/ hydro seed					x					x	x					
PLAN B WORK																	

General Issues / Change Orders											Ball In Court
1											
2											
3											

Attachment B

Weekly Site Photos

Weekly Progress Report #25 (April 27, 2015 – May 1, 2015)

Weekly Site Photos



Posillico applying water for dust suppression.



Posillico stockpiling topsoil adjacent to Sump #3.

Weekly Progress Report #25 (April 27, 2015 – May 1, 2015)

Weekly Site Photos



Posillico receiving topsoil (northwest corner of the Site, west of the railroad spur).



Posillico surveying the southwest portion of the Site after placement of topsoil.

Weekly Progress Report #25 (April 27, 2015 – May 1, 2015)

Weekly Site Photos



View of the interior of the Frac tank after Posillico completed cleaning.



Topsoil placed around Sumps #3 and #4 and topsoil completed in Sump #1.

Weekly Progress Report #25 (April 27, 2015 – May 1, 2015)

Weekly Site Photos



Posillico placing topsoil west of the former Administration Building location.



Posillico placing topsoil near the utility poles with deactivated lines also showing that the site access road remains open.

Weekly Progress Report #25 (April 27, 2015 – May 1, 2015)

Weekly Site Photos



Posillico places topsoil taking care to not disturb the nesting Geese.



Posillico receives hydroseed materials.

Attachment C

Excavation/Backfilling Progress
Table

**TABLE 1
EXCAVATION AND BACKFILL TRACKING
UPDATED THROUGH APRIL 24, 2015**

**PHASE 2 OPERABLE UNIT 4 REMEDIAL ACTION
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK**

Operation	Design Volume (CY)	Estimated Volumes ¹ (CY)				Percent Completed
		Previous Totals	Current Week Totals	Total to Date	Remaining Volume	
Excavation						
<i>"A" Group Excavation Areas</i>						
PCB-Impacted Soil (>50ppm)	167	167	0	167	0	100%
Non-Hazardous Waste Soil	201	201	0	201	0	100%
Subtotal:	368	368	0	368	0	100%
<i>"B" Group Excavation Areas</i>						
PCB-Impacted Soil (>50ppm)	218	218	0	218	0	100%
Non-Hazardous Waste Soil	183	183	0	183	0	100%
Subtotal:	401	401	0	401	0	100%
<i>"C" Group Excavation Areas</i>						
PCB-Impacted Soil (>50ppm)	227	227	0	227	0	100%
Non-Hazardous Waste Soil	5,538	5,538	0	5,538	0	100%
Concrete	400	0	0	0	400	0%
Subtotal:	6,165	5,765	0	5,765	400	94%
PCB-Impacted Soil (>50ppm) Subtotal:	612	612	0	612	0	100%
Non-Hazardous Waste Soil Subtotal:	5,922	5,922	0	5,922	0	100%
Total:	6,534	6,534	0	6,534	0	100%
Backfill						
<i>Run-of-Bank Gravel</i>						
Phase 1 "A" Group Excavation Areas	5,327	4,849	0	4,849	478	91%
Phase 1 "B" Group Excavation Areas	1,384	1,326	0	1,326	58	96%
Phase 2 "A" Group Excavation Areas	368	321	0	321	47	87%
Phase 2 "B" Group Excavation Areas	401	401	0	401	0	100%
Phase 2 "C" Group Excavation Areas	5,765	5,163	0	5,163	602	90%
Soil Cover System	18,200	11,030	248	11,278	6,922	62%
Subtotal:	31,445	22,690	248	22,938	8,107	73%
<i>Topsoil</i>						
Soil Cover System	7,192	3,096	2,726	5,822	1,370	81%
Total:	38,637	11,759	2,974	28,760	9,477	74%

Notes:

1. Excavation and backfill volumes are estimates based on field observations and measurements.
2. CY = Cubic Yards.
3. PCB = polychlorinated biphenyls
4. ppm = parts per million

Attachment D

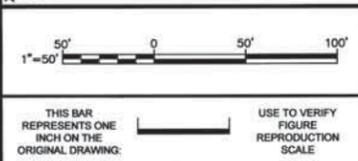
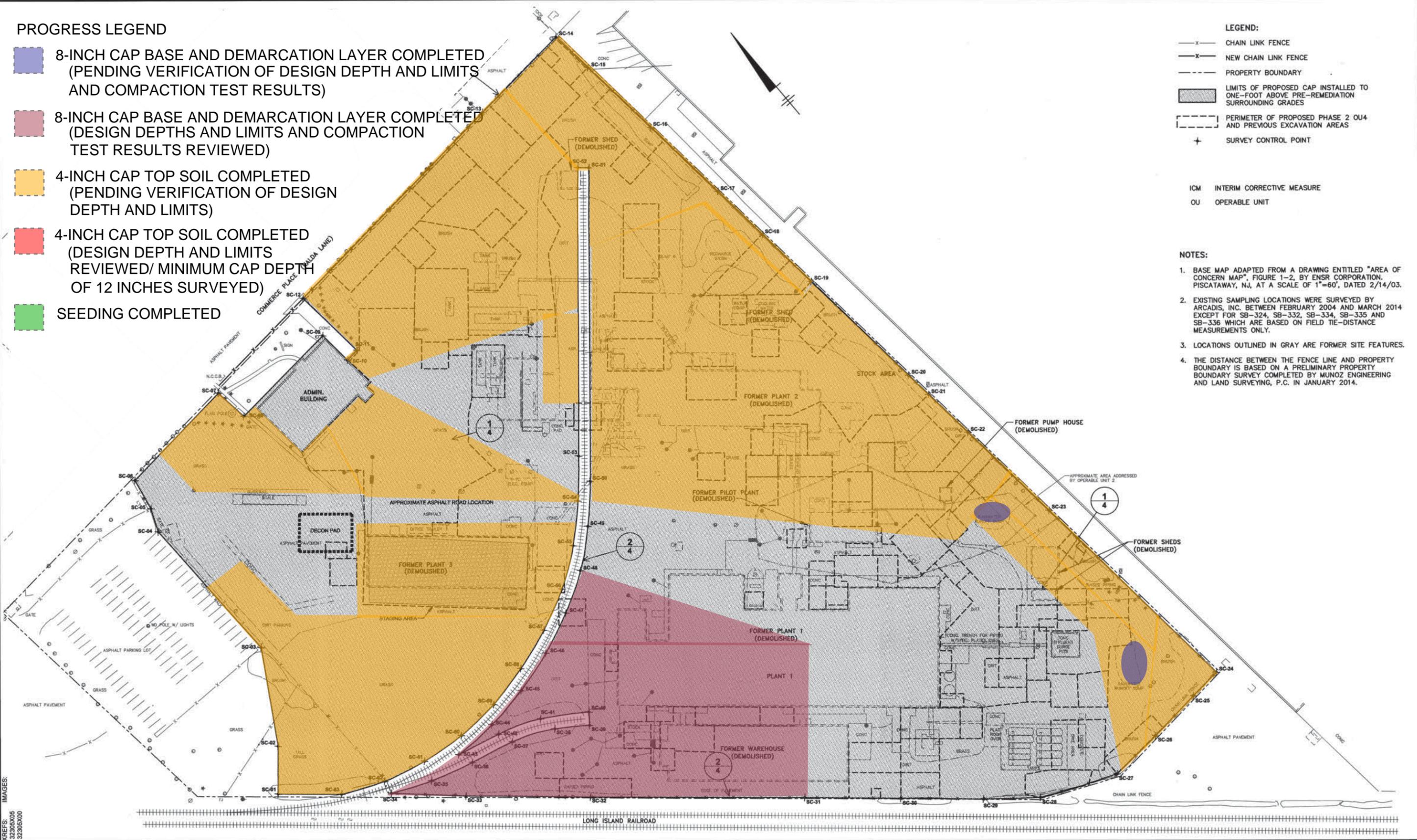
Soil Cover System Progress
Figure

PROGRESS LEGEND

-  8-INCH CAP BASE AND DEMARCATION LAYER COMPLETED (PENDING VERIFICATION OF DESIGN DEPTH AND LIMITS AND COMPACTION TEST RESULTS)
-  8-INCH CAP BASE AND DEMARCATION LAYER COMPLETED (DESIGN DEPTHS AND LIMITS AND COMPACTION TEST RESULTS REVIEWED)
-  4-INCH CAP TOP SOIL COMPLETED (PENDING VERIFICATION OF DESIGN DEPTH AND LIMITS)
-  4-INCH CAP TOP SOIL COMPLETED (DESIGN DEPTH AND LIMITS REVIEWED/ MINIMUM CAP DEPTH OF 12 INCHES SURVEYED)
-  SEEDING COMPLETED

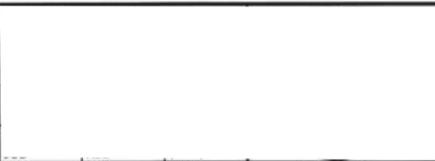
- LEGEND:**
-  CHAIN LINK FENCE
 -  NEW CHAIN LINK FENCE
 -  PROPERTY BOUNDARY
 -  LIMITS OF PROPOSED CAP INSTALLED TO ONE-FOOT ABOVE PRE-REMEDATION SURROUNDING GRADES
 -  PERIMETER OF PROPOSED PHASE 2 OU4 AND PREVIOUS EXCAVATION AREAS
 -  SURVEY CONTROL POINT
- ICM INTERIM CORRECTIVE MEASURE
OU OPERABLE UNIT

- NOTES:**
1. BASE MAP ADAPTED FROM A DRAWING ENTITLED "AREA OF CONCERN MAP", FIGURE 1-2, BY ENSR CORPORATION, PISCATAWAY, NJ, AT A SCALE OF 1"=60', DATED 2/14/03.
 2. EXISTING SAMPLING LOCATIONS WERE SURVEYED BY ARCADIS, INC. BETWEEN FEBRUARY 2004 AND MARCH 2014 EXCEPT FOR SB-324, SB-332, SB-334, SB-335 AND SB-336 WHICH ARE BASED ON FIELD TIE-DISTANCE MEASUREMENTS ONLY.
 3. LOCATIONS OUTLINED IN GRAY ARE FORMER SITE FEATURES.
 4. THE DISTANCE BETWEEN THE FENCE LINE AND PROPERTY BOUNDARY IS BASED ON A PRELIMINARY PROPERTY BOUNDARY SURVEY COMPLETED BY MUNOZ ENGINEERING AND LAND SURVEYING, P.C. IN JANUARY 2014.



No.	Date	Revisions	By	Ckd

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BAYER MATERIALSCIENCE LLC • HICKSVILLE, NEW YORK
REMEDIAL DESIGN ADDENDUM

PHASE 2 OU4 SOIL COVER SYSTEM PROGRESS UPDATE
WEEK ENDING 05/1/2015

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