January 13, 2021

Mr. Craig A. Slater, Esq.
Bethlehem Solar Park, LLC
500 Seneca Street - Suite 504
Buffalo, New York 14204

Re: Phase II Environmental Investigation
2800 Hamburg Turnpike Site
Lackawanna, New York

Dear Mr. Slater:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this report to present the results of a Phase II Environmental Investigation performed at 2800 Hamburg Turnpike in the City of Lackawanna, Erie County, New York (Site).

A Site Location and Vicinity Map is provided as Figure 1.

CURRENT SITE CONDITIONS AND BACKGROUND

The 9.7-acre Site is predominantly undeveloped land with remnants of a former industrial building (concrete foundation, building debris, etc.) remaining. The Site was historically a part of the greater Bethlehem Steel operation and was developed with a former structure related to steel production, including shipping, a cold mill, and coil annealing. Following the closure of the Bethlehem Steel operation, the building was used for storage until November 2016 when a fire destroyed the on-Site building and off-site portions of the building. Additional information relative to the history of the Site is provided in the table below:

Approximate Years	Reported or Suspected Use	Owner/Occupant
1894 to prior to 1936	The Site appears to be mostly vacant undeveloped land with a former building on the western portion of the Site.	Bethlehem Steel beginning in 1922.
At least 1936 to prior to 1948	Former gasoline station on the northwestern portion of the Site, railroad tracks throughout the Site.	Bethlehem Steel.
At least 1949 to 1960	Railroad tracks throughout the Site, former industrial building sections are constructed on-Site between 1949 and 1960.	Bethlehem Steel.
1960 to approximately 1982	A portion of the greater Bethlehem Steel facility with on-Site operations including coil annealing, a cold mill, shipping, lumber storage, and tractor repair. In addition, a transformer room, a substation, a motor room and an oil cellar and petroleum ASTs were identified on-Site.	Bethlehem Steel until 1982

Approximately 1982 to 2016	Vacant and Storage	Arcelor Mittal/Tecumseh owned the Site from approximately 1982 to 2010. The current property owner is Great Lakes Industrial Development, LLC, which purchased the Site in 2010.
2016 to current	Vacant industrial with remnants of a former industrial building that was destroyed by a fire in 2016.	Great Lakes Industrial Development, LLC.

A Phase I Environmental Site Assessment completed by TurnKey in November 2020 identified the following recognized environmental conditions (RECs) in connection with the Site:

- The Site has an industrial history and was part of a greater industrial operation associated with Bethlehem Steel. Prior to the structure fire in 2016, operations at the Site historically included industrial storage, coil annealing, a cold mill, shipping, lumber storage, and tractor repair. In addition, railroad tracks, a transformer room, a substation, a motor room, an oil cellar, and petroleum aboveground storage tanks (ASTs) were identified on-Site.
- A former gas station was identified on-Site on the northwestern portion of the Site (as per a 1936 Site Plan).
- During TurnKey's site visit, an unknown void and suspect floor drains were observed. Based on the location of the Site, floor drains likely discharge into the municipal sanitary sewer system; however, the integrity of the floor drain system is unknown.
- Based on the location and history of the Site, there is the potential for impacted fill materials to exist on-Site.
- Miscellaneous materials including mounds of soil/fill and building debris (i.e., brick, concrete, ceiling tile, pipes, etc.) as such will require segregation and proper off-site disposal.
- The presence of urban fill materials from unknown sources due to the potential for impacts.

In consideration of the RECs identified above, as the Site is slated for redevelopment as a 2.4 megawatt (MW) solar facility, this Phase II Environmental Investigation was completed to assess subsurface conditions.

INVESTIGATION ACTIVITIES

On December 10, 2020, eight test pits identified as TP-1 through TP-8 were completed across the Site using a mini-excavator. Each test pit was completed to the maximum reach of the excavator at approximately seven feet below ground surface (fbgs) to nine fbgs or equipment

refusal encountered at depths between four fbgs and five fbgs. Test pit locations are shown on Figure 2.

The soil/fill samples from each test pit were screened for volatile organics using a MiniRae 3000 Photoionization Detector (PID), visual characteristics for each sample were classified using the ASTM D2488 Visual-Manual Procedure Description, and olfactory observations, if any, were noted.

Five subsurface soil/fill samples were submitted to the laboratory for analysis of polycyclic aromatic hydrocarbons (PAHs) and Resource Conservation and Recovery Act (RCRA) metals. Specifically, subsurface samples were collected from the soil/fill layers at TP-1 (0.0-0.5 fbgs), TP-3 (0.0-2.0 fbgs), TP-4 (4.0-5.0 fbgs), TP-7 (0.0-1.0 fbgs), TP-8 (4.0-6.0 fbgs).

In addition, based on field observations that are further detailed below, soil/fill laboratory analytical results from TP-4 (4.0-5.0 fbgs) and TP-8 (4.0-5.0 fbgs) were expanded to include Target Compound List (TCL) plus Commissioner Policy 51 (CP-51) volatile organic compounds (VOCs) and the soil/fill sample from TP-4 (4.0-5.0 fbgs) was analyzed for polychlorinated biphenyls (PCBs).

All samples were collected in laboratory provided sample bottles and were cooled to 4^0 C prior to transport.

FIELD OBSERVATIONS AND FINDINGS

In general, soil/fill consisting of black coal and coke fines mixed and fragments of metal, wood, brick, glass, concrete, and slag was observed from the ground surface to depths ranging between approximately 4 fbgs to 7 fbgs. Re-worked sandy lean clay was observed underlying the soil/fill materials at TP-1, TP-7 and TP-8 ranging in depths from 4 fbgs to 9 fbgs.

Field observations of note are detailed below:

- The highest PID reading identified during the work (22.6 parts per million, ppm) was identified in the former gasoline station area at TP-8. PID readings up to 9 ppm were identified at TP-7 in the former tractor repair area.
- TP-6 encountered refusal on railroad ties and slag bedding material at 5 fbgs.
- TP-7, advanced in a former railroad right-of-way within the building footprint, was noted to include a coarse slag layer with slight petroleum-like odors from 1 fbgs to 4 fbgs. A coarse slag layer was also observed at TP-8 from 1 fbgs to 2.5 fbgs.
- A slight sheen was noted on perched water at TP-3 completed within the former building footprint.
- A slight sheen and trace product blebs were noted on perched water within a backfilled concrete trench at TP-4 and TP-5.

Test pit logs with additional information relative to lithology and field observations are included in Appendix A. Photographs taken during the work are included in Appendix B.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical reports are provided in Appendix C. Analytical results were compared to 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (USCOs), Restricted-Residential Soil Cleanup Objectives (RRSCOs), Commercial SCOs (CSCOs), and Industrial SCOs (ISCOs). We note that as the Site is slated for redevelopment as a solar facility; therefore, CSCOs are the most applicable SCOs for this end use.

As summarized on Table 1, VOCs were either not detected at concentrations above laboratory detection limits or concentrations were below their respective USCOs.

One or more individual PAHs exceeded their respective CSCOs (i.e., the applicable SCO for the Site) in all five soil/fill samples collected from the Site. The highest PAH concentrations were identified in the fill material at TP-7 collected within the former building footprint proximate to the former tractor repair area.

Regarding metals, barium and lead exceeded their respective CSCOs at TP-7.

A total PCB concentration of 0.225 milligrams per kilograms (mg/kg) at TP-4 exceeded its respective USCO.

CONCLUSIONS

The Site soil/fill is impacted by PAHs and/or metals with concentrations exceeding Part 375 CSCOs (the applicable SCO for the Site based on the planned redevelopment as a commercial solar facility) in all five soil/fill samples collected across the Site. Based on this information, as urban fill was observed by TurnKey at all investigation locations, it appears that PAH- and/or metals-impacted soil/fill is present across the Site. Further, field observations and analytical results suggest the presence of weathered petroleum impacts on-Site at certain investigation locations (i.e., TP-4 and TP-5).

We understand that the Site is being considered for redevelopment. Based on the findings detailed above, the Site is a potential candidate for the New York State BCP. Regardless of whether the BCP is pursued, PAHs- and metals-impacted soil/fill materials present on-Site will require exposure control, remediation, and/or proper soil management either prior to or during the redevelopment project.

DECLARATIONS/LIMITATIONS

This report has been prepared for the exclusive use of Bethlehem Solar Park, LLC. The contents of this report are limited to information available at the time of the subject site investigation. Data provided by others as referenced herein is assumed to be accurate and reliable. The findings herein may be relied upon only at the discretion of Bethlehem Solar Park, LLC and are limited to the terms and conditions identified in the agreement between TurnKey and its client. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Michael A. Lesakowski
Principal

Bryan W. Mayback
Sr. Project Scientist

TABLE

TABLE 1
SUMMARY OF SUBSURFACE SOIL/FILL SAMPLE ANALYTICAL RESULTS
PHASE II ENVIRONMENTAL INVESTIGATION
2800 HAMBURG TURNPIKE
LACKAWANNA, NEW YORK

PARAMETER[1]	Unrestricted Use SCOs[2]	Restricted Residential Use SCOs[3]	Commercial Use SCOs[3]	Industrial Use SCOs[3]	SAMPLE LOCATION				
					TP-1 0.0 - 0.5'	TP-3 0.0 - 2.0'	TP-4 4.0 - 5.0'	TP-7 0.0 - 1.0'	TP-8 4.0 - 6.0'
					12/10/2020	12/10/2020	12/10/2020	12/10/2020	12/10/2020
Volatile Organic Compounds (SVOCs) - mg/Kg[4]									
Acetone	0.05	100	500	1000	--	--	0.012	--	ND
Benzene	0.06	4.8	44	89	--	--	0.00031 J	--	ND
Cyclochexane	--	--	--	--	--	--	ND	--	0.001 J
Ethylbenzene	1	41	390	700	--	--	0.00018 J	--	ND
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg[4]									
Acenaphthene	20	100	500	1000	0.17	0.47	0.9	4.4	0.3 J
Acenaphthylene	100	100	500	1000	0.05 J	0.16 J	0.65 J	0.72	0.74
Anthracene	100	100	500	1000	0.57	1.6	2.7	14	2.6
Benzo(a)anthracene	1	1	5.6	11	**2**	**4.7**	**9.9**	**43**	**5.1**
Benzo(a)pyrene	1	1	1	1.1	**2.2**	**4.8**	**12**	**48**	**4.9**
Benzo(b)fluoranthene	1	1	5.6	11	**2.2**	**6**	**14**	**59**	**6.3**
Benzo(ghi)perylene	100	100	500	1000	1.1	3.3 J	7.1	30	3.2
Benzo(k)fluoranthene	0.8	3.9	56	110	**0.91**	**1.8**	**4.5**	**16**	**1.5**
Chrysene	1	3.9	56	110	**1.8**	**4.3**	**9.8**	**37**	**4.1**
Dibenzo (a,h)anthracene	0.33	0.33	0.56	1.1	0.29	**0.83**	**1.6 J**	**7.7**	**0.82**
Fluoranthene	100	100	500	1000	3.4	7.8	21	66	9.5
Fluorene	30	100	500	1000	0.17 J	0.49	1.1	5	0.92
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	11	**1.2**	**3.4**	**8**	**31**	**3.4**
Naphthalene	12	100	500	1000	0.093 J	0.35 J	0.57 J	2.4 J	0.39 J
Phenanthrene	100	100	500	1000	1.8	4.9	12	44	7.7
Pyrene	100	100	500	1000	2.8	6.7	18	58	7.4
Total PAHs	--	--	--	--	20.753 J	51.6 J	123.82 J	466.22 J	58.87 J
Total PCBs - mg/Kg[5]									
Aroclor 1254	0.1	1	1	25	--	--	0.0956	--	--
Aroclor 1260	0.1	1	1	25	--	--	0.075	--	--
Aroclor 1268	0.1	1	1	25	--	--	0.0545	--	--
Total PCBs	0.1	1	1	25	--	--	**0.2251**	--	--
Total Metals - mg/Kg									
Arsenic	13	16	16	16	9.82	10.5	6.62	12.3	11.3
Barium	350	400	400	10000	186	160	120	**504**	101
Cadmium	2.5	4.3	9.3	60	**5.02**	1.25	**4.98**	**7.58**	2.25
Chromium	30	180	1500	6800	**328**	15.8	**114**	**143**	**25**
Lead	63	400	1000	3900	**773**	**283**	**86.2**	**3600**	**115**
Mercury	0.18	0.81	2.8	5.7	0.176	**1.07**	**0.218**	0.109	ND
Selenium	30	180	1500	10000	7.01	1.41	3.6	3.08	4.28
Silver	2	180	1500	6800	**3.34**	0.348 J	0.929	0.622	1.33

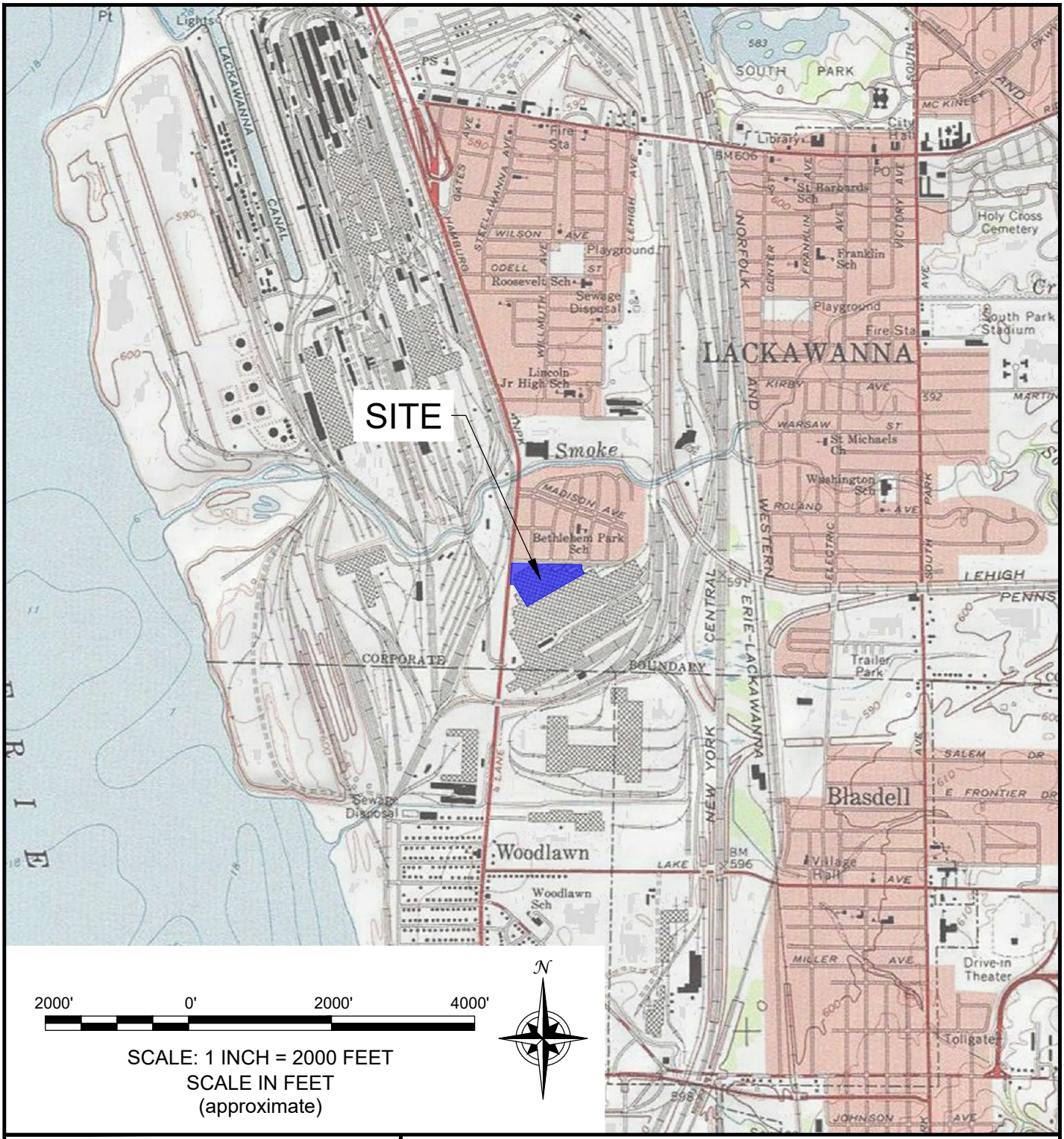
Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Unrestricted Soil Cleanup Objectives (SCOs), Table 375-6(a).
3. Values per 6NYCRR Part 375 Restricted Use Soil Cleanup Objectives (SCOs), Commercial SCOs (CSCOs), and Industrial SCOs (ISCOs), Table 375-6.8(b).
4. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:
ND = Parameter not detected above laboratory detection limit.
"--" = No value available for the parameter, or the parameter was not analyzed for.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

BOLD	= Exceeds Unrestricted SCOs
BOLD	= Exceeds Restricted Residential SCOs
BOLD	= Exceeds Commercial SCOs
BOLD	= Exceeds Industrial SCOs

FIGURES

FIGURE 1



TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

SITE LOCATION AND VICINITY MAP

PHASE II ENVIRONMENTAL INVESTIGATION

PORTION OF 2800 HAMBURG TURNPIKE

LACKAWANNA, NEW YORK

PREPARED FOR

BETHLEHEM SOLAR PARK, LLC

PROJECT NO.: 0557-020-001

DATE: OCTOBER 2020

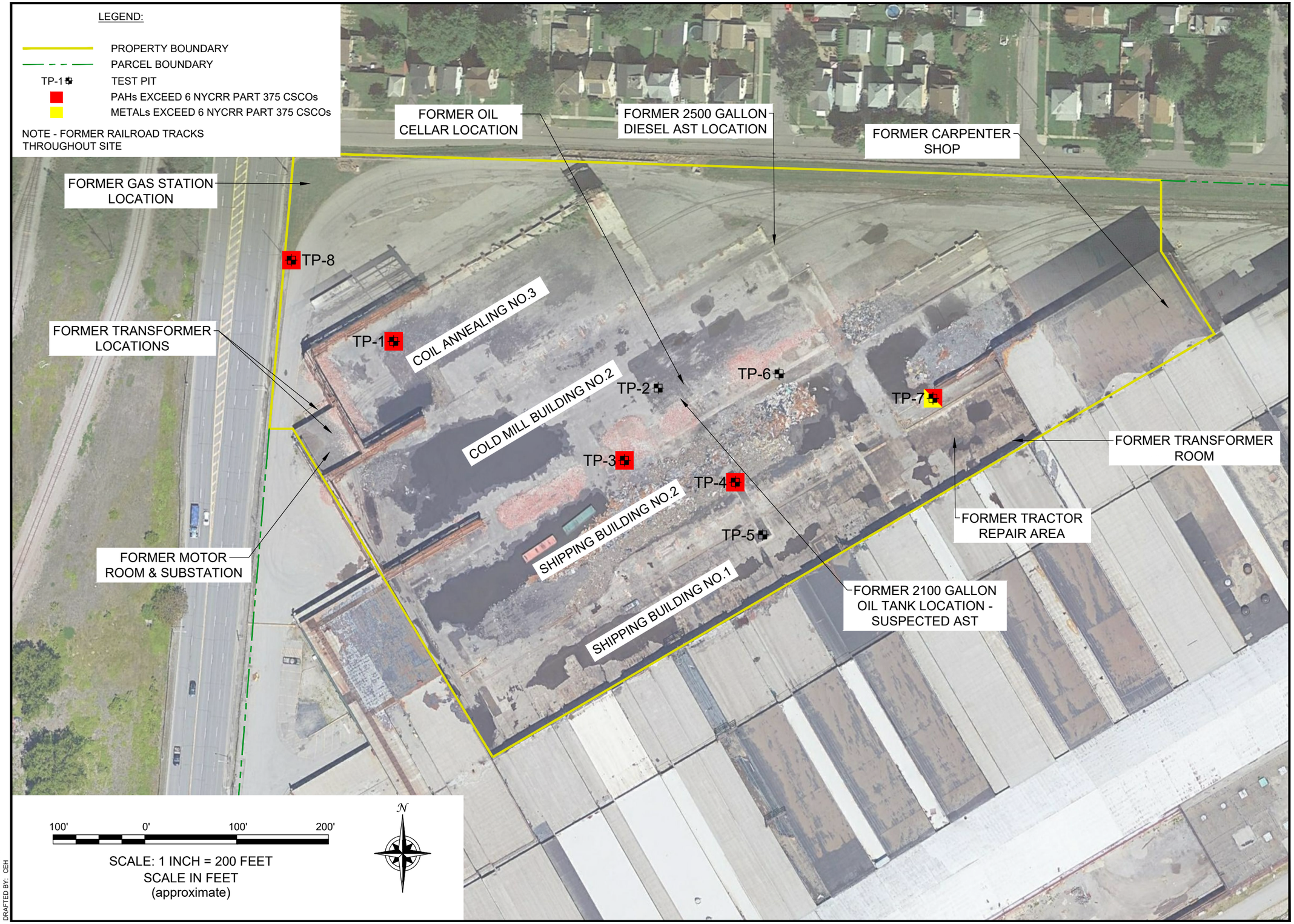
DRAFTED BY: CEH

F:\CAD\TurnKey\Slater Law\2800 Hamburg Turnpike\Phase II\Figure 2 - Site Plan (Aerial) & Test Pit Locations.dwg

LEGEND:

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- TP-1 TEST PIT
- PAHs EXCEED 6 NYCRR PART 375 CSCOs
- METALs EXCEED 6 NYCRR PART 375 CSCOs

NOTE - FORMER RAILROAD TRACKS THROUGHOUT SITE



100' 0' 100' 200'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

N

DATE: OCTOBER 2020
DRAFTED BY: CEH

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

TurnKey Environmental Restoration, LLC

JOB NO.: 0557-020-001

SITE PLAN (AERIAL)

PHASE II ENVIRONMENTAL INVESTIGATION
PORTION OF 2800 HAMBURG TURNPIKE
LACKAWANNA, NEW YORK

PREPARED FOR
BETHLEHEM SOLAR PARK, LLC

FIGURE 2

APPENDIX A

TEST PIT LOGS

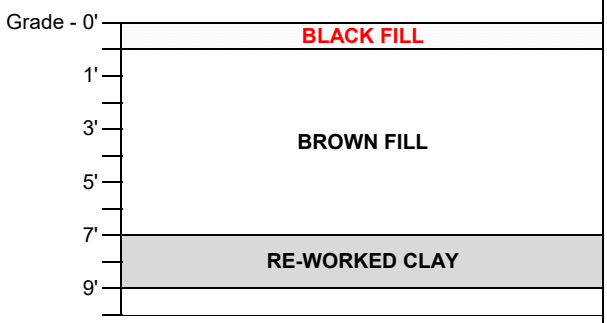
TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-1**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

TIME				
Start:	8:45	Length:	12.0 ft.	(approx.)
End:	9:30	Width:	2.5 ft.	(approx.)
		Depth:	9.0 ft.	(approx.)

Test Pit Cross Section:



Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.5	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete, brick, slag and metal debris.	0.0	yes	yes
0.5 - 7.0	Fill - Brown, moist, mostly clay and sand mixed with concrete, brick and slag.	0.0	yes	no
7.0 - 9.0	Re-worked lean clay - Brown/grey mostly clay with some fine sand, few sub-rounded and coarse fine gravels.	0.0	yes	no

COMMENTS:

WATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☐ YES	☑ NO	Describe:
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:

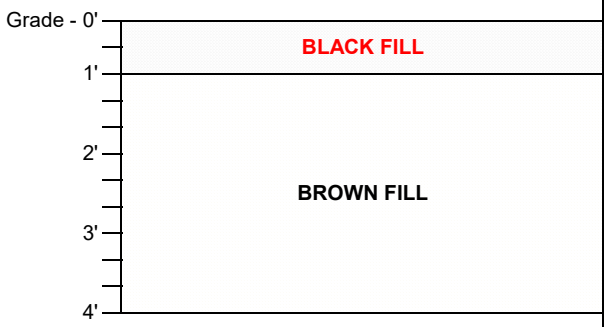
TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-2**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

TIME				
Start:	9:15	Length:	15.0 ft.	(approx.)
End:	9:45	Width:	2.5 ft.	(approx.)
		Depth:	4.0 ft.	(approx.)

Test Pit Cross Section:



Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 1.0	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete, brick, slag and metal debris.	0.0	yes	no
1.0 - 4.0	Fill - Brown, moist, mostly fines and sand mixed with concrete, brick and slag, equipment refusal on concrete.	0.0	yes	no

COMMENTS:

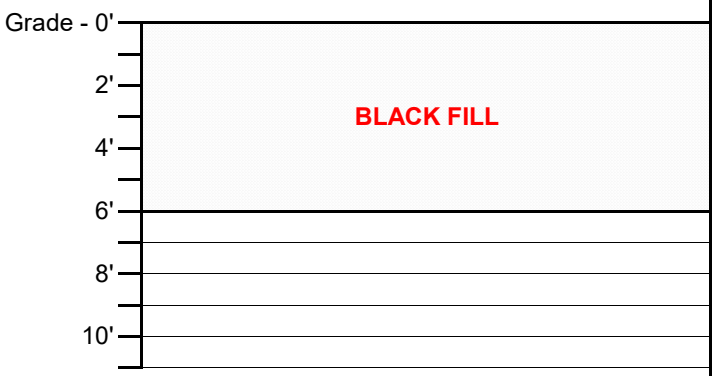
WATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☐ YES	☑ NO	Describe:
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:

TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-3**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

Test Pit Cross Section:



TIME			
Start:	Length:	10.0 ft.	(approx.)
End:	Width:	2.5 ft.	(approx.)
	Depth:	6.0 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 6.0	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete, brick, slag and metal debris, water at 5.5 feet below ground surface with slight sheen.	0.0	yes	0.0 - 2.0

COMMENTS:

WATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW: 5.5 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe: Slight sheen on perched water
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:			Sample I.D.: TP-3 0.0 -2.0 fbgs.

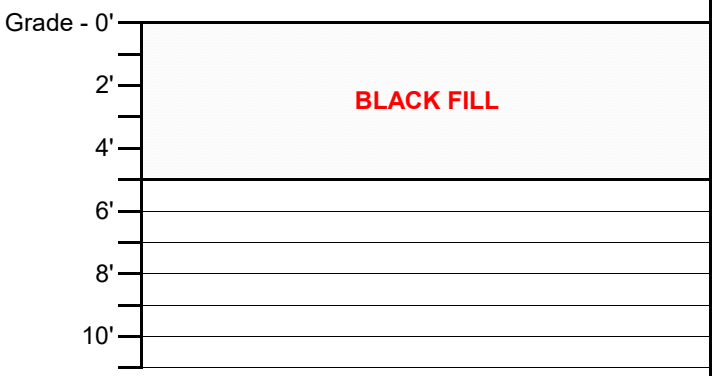
TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-4**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

TIME			
Start:	Length:	10.0 ft.	(approx.)
End:	Width:	2.5 ft.	(approx.)
	Depth:	5.0 ft.	(approx.)

Test Pit Cross Section:



Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 5.0	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete, brick, slag and metal debris, water at 4.0 fbgs with slight sheen and trace product blebs, equipment refusal at 5.0 fbgs.	0.0	yes	4.0 - 5.0

COMMENTS:

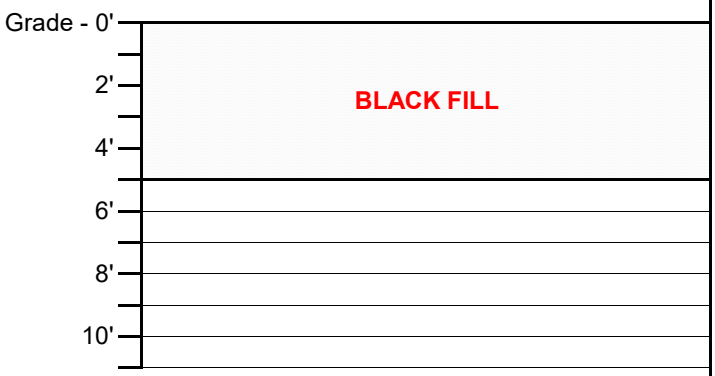
WATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW: 4.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe: Slight sheen and trace product
OLFACTORY OBSERVATIONS:	☑ YES	☑ NO	Describe: Slight petroleum-like odors
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:			Sample I.D.: TP-4 4.0 -5.0 fbgs.

TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-5**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

Test Pit Cross Section:



TIME			
Start:	Length:	9.0 ft.	(approx.)
End:	Width:	2.5 ft.	(approx.)
	Depth:	5.0 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 5.0	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete, brick, slag and metal debris, water at 4.0 fbgs with slight sheen and trace product blebs, equipment refusal at 5.0 fbgs.	0.0	yes	4.0 - 5.0

COMMENTS:

WATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW: 4.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe: Slight sheen and trace product
OLFACTORY OBSERVATIONS:	☑ YES	☑ NO	Describe: Slight petroleum-like odors
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:			Sample I.D.:

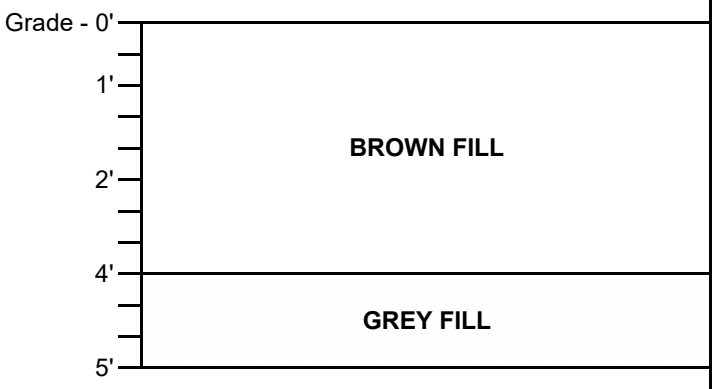
TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-6**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

TIME			
Start:	Length:	13.0 ft.	(approx.)
End:	Width:	2.5 ft.	(approx.)
	Depth:	5.0 ft.	(approx.)

Test Pit Cross Section:



Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 4.0	Fill - Dark brown, mostly fine sand mixed with clay, with concrete, brick, slag and metal debris.	0.0	yes	no
4.0 - 5.0	Fill - Grey/Brown/black, moist, mostly fine slag, with fines and fine sand, with rail road ties, equipment refusal at 5.0 fbgs.	0.0	yes	no

COMMENTS:

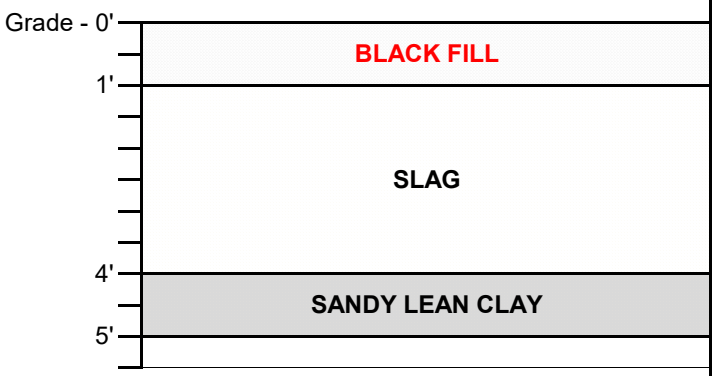
WATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☐ YES	☑ NO	Describe:
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:

TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-7**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

Test Pit Cross Section:



TIME			
Start:	Length:	7.0 ft.	(approx.)
End:	Width:	3.0 ft.	(approx.)
	Depth:	5.0 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 1.0	Fill - Black, mostly fines (coal and coke), some fine sand, with concrete and brick and metal debris.	0.0	yes	yes
1.0 - 4.0	Slag - Grey/white, mostly coarse slag, slight petroleum odor.	5.8	yes	no
4.0 - 5.0	Sandy Lean Clay - Olive grey, moist, mostly clay, few fine sand, stiff, slight petroleum odor.	9.0	yes	no

COMMENTS:

WATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:	
VISUAL IMPACTS:	☐ YES	☑ NO	Describe:	
OLFACTORY OBSERVATIONS:	☑ YES	☐ NO	Describe:	Slight petroleum-like odors.
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:			Sample I.D.:	TP-7 0.0 - 1.0 ft

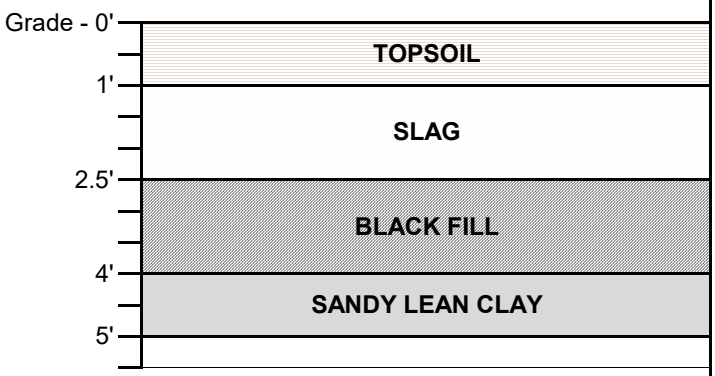
TEST PIT EXCAVATION LOG

Project:	Phase II ESA	TEST PIT I.D.:	**TP-8**
Project No.:	T0557-020-001	Excavation Date:	12/10/20
Client:	Bethlehem Solar Park, LLC	Excavation Method:	mini-excavator
Location:	Lackawanna, NY	Logged / Checked By:	TAB

Test Pit Location: *NOT TO SCALE*

TIME			
Start:	Length:	7.0 ft.	(approx.)
End:	Width:	3.0 ft.	(approx.)
	Depth:	5.0 ft.	(approx.)

Test Pit Cross Section:



Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 1.0	Topsoil - Dark brown, moist, mostly silt, some fine sand, with little clay, trace fine gravel, roots.	0.0	yes	no
1.0 - 2.5	Slag - Black/Grey/white/blue, mostly coarse slag.	1.8	yes	no
2.5 - 6.0	Fill - Black, moist, mostly fines (coal and coke) some fine sand, with concrete, brick, slag, metal debris. Perched water at 5.5 fbgs, no odor.	22.6	yes	yes
6.0 - 7.0	Lean Clay - Grey, moist, mostly clay, few fine sand, very, stiff, massive.	1.9	yes	no

COMMENTS:

WATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☐ YES	☑ NO	Describe:
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:			Sample I.D.: TP-8 4.0 - 6.0 ft ft

APPENDIX B

PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: View of TP-1 located in the former Coil Annealing No 3 area (looking west).

Photo 2: View of TP-2 located in Cold Mill Building No 2 area. (looking southwest)

Photo 3: View of TP-4 located in Shipping Building No 2 area. (looking south)

Photo 4: View of TP-5 located in Shipping Building No 1 area. (looking east)

SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

Photo 8:

Photo 5: Apparent product blebs and sheening present on perched water in TP-5.

Photo 6: View of TP-6 located between Cold Mill & Shipping Building No 2. (looking west).

Photo 7: View of TP-7 located in railroad right of way between Shipping Buildings No 1 & 2. (looking west).

Photo 8: View of TP-8. (note slag/fill layer).

APPENDIX C

LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Lab Number:	L2055560
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	BETHLEHEM SOLAR PARK
Project Number:	T0557-020-001
Report Date:	12/20/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2055560-01	TP-1 0-0.5'	SOIL	LACKAWANNA, NY	12/10/20 09:00	12/11/20
L2055560-02	TP-3 0-2'	SOIL	LACKAWANNA, NY	12/10/20 09:50	12/11/20
L2055560-03	TP-4 4-5'	SOIL	LACKAWANNA, NY	12/10/20 10:15	12/11/20
L2055560-04	TP-7 0-1'	SOIL	LACKAWANNA, NY	12/10/20 11:22	12/11/20
L2055560-05	TP-8 4-6'	SOIL	LACKAWANNA, NY	12/10/20 12:12	12/11/20

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

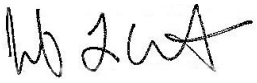
L2055560-03 and -05: Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Semivolatile Organics

L2055560-02 and -04: The sample has elevated detection limits due to the dilution required by the sample matrix.

L2055560-04: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Jennifer L Clements

Title: Technical Director/Representative Date: 12/20/20

ORGANICS

VOLATILES

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03
Client ID: TP-4 4-5'
Sample Location: LACKAWANNA, NY
Date Collected: 12/10/20 10:15
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/16/20 17:47
Analyst: JC
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	0.31	J	ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	0.18	J	ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03 Date Collected: 12/10/20 10:15

Client ID: TP-4 4-5' Date Received: 12/11/20

Sample Location: LACKAWANNA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	12		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
Methyl Acetate	ND		ug/kg	4.6	1.1	1
Cyclohexane	ND		ug/kg	12	0.63	1
1,4-Dioxane	ND		ug/kg	93	41.	1
Freon-113	ND		ug/kg	4.6	0.80	1
Methyl cyclohexane	ND		ug/kg	4.6	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	82		70-130
Dibromofluoromethane	88		70-130

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-05
Client ID: TP-8 4-6'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 12:12
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/16/20 18:12
Analyst: JC
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.20	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.4	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-05 Date Collected: 12/10/20 12:12

Client ID: TP-8 4-6' Date Received: 12/11/20

Sample Location: LACKAWANNA, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
Methyl Acetate	ND		ug/kg	4.7	1.1	1
Cyclohexane	1.0	J	ug/kg	12	0.64	1
1,4-Dioxane	ND		ug/kg	94	41.	1
Freon-113	ND		ug/kg	4.7	0.81	1
Methyl cyclohexane	ND		ug/kg	4.7	0.71	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	78		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	82		70-130
Dibromofluoromethane	76		70-130

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/16/20 14:11
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 03,05 Batch: WG1446322-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/16/20 14:11
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 03,05 Batch: WG1446322-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	0.51	J	ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	0.33	J	ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/16/20 14:11
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 03,05 Batch: WG1446322-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	72		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 03,05 Batch: WG1446322-3 WG1446322-4								
Methylene chloride	99		92		70-130	7		30
1,1-Dichloroethane	113		116		70-130	3		30
Chloroform	93		82		70-130	13		30
Carbon tetrachloride	86		79		70-130	8		30
1,2-Dichloropropane	120		116		70-130	3		30
Dibromochloromethane	89		109		70-130	20		30
1,1,2-Trichloroethane	88		114		70-130	26		30
Tetrachloroethene	122		**134**	Q	70-130	9		30
Chlorobenzene	108		105		70-130	3		30
Trichlorofluoromethane	103		97		70-139	6		30
1,2-Dichloroethane	87		87		70-130	0		30
1,1,1-Trichloroethane	92		78		70-130	16		30
Bromodichloromethane	89		82		70-130	8		30
trans-1,3-Dichloropropene	103		117		70-130	13		30
cis-1,3-Dichloropropene	82		88		70-130	7		30
Bromoform	**134**	Q	**132**	Q	70-130	2		30
1,1,2,2-Tetrachloroethane	104		101		70-130	3		30
Benzene	88		102		70-130	15		30
Toluene	115		129		70-130	11		30
Ethylbenzene	106		103		70-130	3		30
Chloromethane	**145**	Q	**139**	Q	52-130	4		30
Bromomethane	114		109		57-147	4		30
Vinyl chloride	**153**	Q	**140**	Q	67-130	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK

Project Number: T0557-020-001

Lab Number: L2055560

Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 03,05 Batch: WG1446322-3 WG1446322-4								
Chloroethane	118		114		50-151	3		30
1,1-Dichloroethene	115		101		65-135	13		30
trans-1,2-Dichloroethene	110		99		70-130	11		30
Trichloroethene	97		96		70-130	1		30
1,2-Dichlorobenzene	124		128		70-130	3		30
1,3-Dichlorobenzene	107		107		70-130	0		30
1,4-Dichlorobenzene	109		107		70-130	2		30
Methyl tert butyl ether	92		90		66-130	2		30
p/m-Xylene	108		124		70-130	14		30
o-Xylene	112		119		70-130	6		30
cis-1,2-Dichloroethene	99		96		70-130	3		30
Styrene	110		130		70-130	17		30
Dichlorodifluoromethane	124		117		30-146	6		30
Acetone	94		83		54-140	12		30
Carbon disulfide	110		102		59-130	8		30
2-Butanone	89		76		70-130	16		30
4-Methyl-2-pentanone	118		**134**	Q	70-130	13		30
2-Hexanone	102		93		70-130	9		30
Bromochloromethane	98		88		70-130	11		30
1,2-Dibromoethane	87		104		70-130	18		30
n-Butylbenzene	125		122		70-130	2		30
sec-Butylbenzene	107		103		70-130	4		30
1,2-Dibromo-3-chloropropane	**131**	Q	102		68-130	25		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK

Project Number: T0557-020-001

Lab Number: L2055560

Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 03,05 Batch: WG1446322-3 WG1446322-4								
Isopropylbenzene	115		124		70-130	8		30
p-Isopropyltoluene	110		104		70-130	6		30
n-Propylbenzene	109		106		70-130	3		30
1,2,3-Trichlorobenzene	115		115		70-130	0		30
1,2,4-Trichlorobenzene	122		121		70-130	1		30
1,3,5-Trimethylbenzene	106		104		70-130	2		30
1,2,4-Trimethylbenzene	107		104		70-130	3		30
Methyl Acetate	100		93		51-146	7		30
Cyclohexane	127		109		59-142	15		30
1,4-Dioxane	117		79		65-136	**39**	Q	30
Freon-113	106		98		50-139	8		30
Methyl cyclohexane	99		100		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	84		82		70-130
Toluene-d8	103		116		70-130
4-Bromofluorobenzene	95		93		70-130
Dibromofluoromethane	80		74		70-130

SEMIVOLATILES

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-01
Client ID: TP-1 0-0.5'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 09:00
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/16/20 06:58
Analyst: JG
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 12/14/20 21:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	170		ug/kg	140	19.	1
Fluoranthene	3400		ug/kg	110	21.	1
Naphthalene	93	J	ug/kg	180	22.	1
Benzo(a)anthracene	2000		ug/kg	110	20.	1
Benzo(a)pyrene	2200		ug/kg	140	44.	1
Benzo(b)fluoranthene	2400		ug/kg	110	30.	1
Benzo(k)fluoranthene	910		ug/kg	110	29.	1
Chrysene	1800		ug/kg	110	19.	1
Acenaphthylene	50	J	ug/kg	140	28.	1
Anthracene	570		ug/kg	110	35.	1
Benzo(ghi)perylene	1100		ug/kg	140	21.	1
Fluorene	170	J	ug/kg	180	18.	1
Phenanthrene	1800		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	290		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	1200		ug/kg	140	25.	1
Pyrene	2800		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	71		30-120
4-Terphenyl-d14	53		18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-02 D
Client ID: TP-3 0-2'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 09:50
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/16/20 18:54
Analyst: JG
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 12/14/20 21:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	470		ug/kg	320	42.	2
Fluoranthene	7800		ug/kg	240	46.	2
Naphthalene	350	J	ug/kg	400	49.	2
Benzo(a)anthracene	4700		ug/kg	240	46.	2
Benzo(a)pyrene	4800		ug/kg	320	99.	2
Benzo(b)fluoranthene	6000		ug/kg	240	68.	2
Benzo(k)fluoranthene	1800		ug/kg	240	65.	2
Chrysene	4300		ug/kg	240	42.	2
Acenaphthylene	160	J	ug/kg	320	62.	2
Anthracene	1600		ug/kg	240	79.	2
Benzo(ghi)perylene	3300		ug/kg	320	48.	2
Fluorene	490		ug/kg	400	39.	2
Phenanthrene	4900		ug/kg	240	49.	2
Dibenzo(a,h)anthracene	830		ug/kg	240	47.	2
Indeno(1,2,3-cd)pyrene	3400		ug/kg	320	56.	2
Pyrene	6700		ug/kg	240	40.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	66		30-120
4-Terphenyl-d14	56		18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03 D
Client ID: TP-4 4-5'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 10:15
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/17/20 19:43
Analyst: SZ
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 12/16/20 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	900		ug/kg	780	100	5
Fluoranthene	21000		ug/kg	590	110	5
Naphthalene	570	J	ug/kg	980	120	5
Benzo(a)anthracene	9900		ug/kg	590	110	5
Benzo(a)pyrene	12000		ug/kg	780	240	5
Benzo(b)fluoranthene	14000		ug/kg	590	160	5
Benzo(k)fluoranthene	4500		ug/kg	590	160	5
Chrysene	9800		ug/kg	590	100	5
Acenaphthylene	650	J	ug/kg	780	150	5
Anthracene	2700		ug/kg	590	190	5
Benzo(ghi)perylene	7100		ug/kg	780	110	5
Fluorene	1100		ug/kg	980	95.	5
Phenanthrene	12000		ug/kg	590	120	5
Dibenzo(a,h)anthracene	1600		ug/kg	590	110	5
Indeno(1,2,3-cd)pyrene	8000		ug/kg	780	140	5
Pyrene	18000		ug/kg	590	97.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	60		30-120
4-Terphenyl-d14	51		18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-04 D
Client ID: TP-7 0-1'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 11:22
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/16/20 18:31
Analyst: JG
Percent Solids: 71%

Extraction Method: EPA 3546
Extraction Date: 12/14/20 21:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	4400		ug/kg	3700	480	20
Fluoranthene	66000		ug/kg	2800	540	20
Naphthalene	2400	J	ug/kg	4700	570	20
Benzo(a)anthracene	43000		ug/kg	2800	520	20
Benzo(a)pyrene	48000		ug/kg	3700	1100	20
Benzo(b)fluoranthene	59000		ug/kg	2800	780	20
Benzo(k)fluoranthene	16000		ug/kg	2800	750	20
Chrysene	37000		ug/kg	2800	480	20
Acenaphthylene	720	J	ug/kg	3700	720	20
Anthracene	14000		ug/kg	2800	910	20
Benzo(ghi)perylene	30000		ug/kg	3700	550	20
Fluorene	5000		ug/kg	4700	450	20
Phenanthrene	44000		ug/kg	2800	570	20
Dibenzo(a,h)anthracene	7700		ug/kg	2800	540	20
Indeno(1,2,3-cd)pyrene	31000		ug/kg	3700	650	20
Pyrene	58000		ug/kg	2800	460	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	**0**	Q	23-120
2-Fluorobiphenyl	**0**	Q	30-120
4-Terphenyl-d14	**0**	Q	18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-05 D
Client ID: TP-8 4-6'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 12:12
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/16/20 19:16
Analyst: JG
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 12/14/20 21:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	300	J	ug/kg	320	42.	2
Fluoranthene	9500		ug/kg	240	46.	2
Naphthalene	390	J	ug/kg	400	49.	2
Benzo(a)anthracene	5100		ug/kg	240	45.	2
Benzo(a)pyrene	4900		ug/kg	320	98.	2
Benzo(b)fluoranthene	6300		ug/kg	240	68.	2
Benzo(k)fluoranthene	1500		ug/kg	240	64.	2
Chrysene	4100		ug/kg	240	42.	2
Acenaphthylene	740		ug/kg	320	62.	2
Anthracene	2600		ug/kg	240	79.	2
Benzo(ghi)perylene	3200		ug/kg	320	47.	2
Fluorene	920		ug/kg	400	39.	2
Phenanthrene	7700		ug/kg	240	49.	2
Dibenzo(a,h)anthracene	820		ug/kg	240	47.	2
Indeno(1,2,3-cd)pyrene	3400		ug/kg	320	56.	2
Pyrene	7400		ug/kg	240	40.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	80		30-120
4-Terphenyl-d14	76		18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/15/20 16:36
Analyst: JRW

Extraction Method: EPA 3546
Extraction Date: 12/14/20 21:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1445013-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	100	19.
Naphthalene	ND		ug/kg	170	20.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	88		18-120

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/15/20 17:42
Analyst: JRW

Extraction Method: EPA 3546
Extraction Date: 12/15/20 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1445289-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	68		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1445013-2 WG1445013-3								
Acenaphthene	77		75		31-137	3		50
Fluoranthene	84		79		40-140	6		50
Naphthalene	70		67		40-140	4		50
Benzo(a)anthracene	82		80		40-140	2		50
Benzo(a)pyrene	87		84		40-140	4		50
Benzo(b)fluoranthene	82		79		40-140	4		50
Benzo(k)fluoranthene	88		87		40-140	1		50
Chrysene	81		80		40-140	1		50
Acenaphthylene	86		83		40-140	4		50
Anthracene	83		80		40-140	4		50
Benzo(ghi)perylene	90		81		40-140	11		50
Fluorene	83		77		40-140	8		50
Phenanthrene	82		78		40-140	5		50
Dibenzo(a,h)anthracene	92		84		40-140	9		50
Indeno(1,2,3-cd)pyrene	91		83		40-140	9		50
Pyrene	85		79		35-142	7		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK

Project Number: T0557-020-001

Lab Number: L2055560

Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1445013-2 WG1445013-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		68		25-120
Phenol-d6	77		71		10-120
Nitrobenzene-d5	68		64		23-120
2-Fluorobiphenyl	85		83		30-120
2,4,6-Tribromophenol	102		102		10-136
4-Terphenyl-d14	97		91		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1445289-2 WG1445289-3								
Acenaphthene	71		62		31-137	14		50
Fluoranthene	74		64		40-140	14		50
Naphthalene	70		61		40-140	14		50
Benzo(a)anthracene	74		63		40-140	16		50
Benzo(a)pyrene	76		66		40-140	14		50
Benzo(b)fluoranthene	72		63		40-140	13		50
Benzo(k)fluoranthene	78		65		40-140	18		50
Chrysene	74		62		40-140	18		50
Acenaphthylene	82		68		40-140	19		50
Anthracene	75		66		40-140	13		50
Benzo(ghi)perylene	78		67		40-140	15		50
Fluorene	70		66		40-140	6		50
Phenanthrene	73		64		40-140	13		50
Dibenzo(a,h)anthracene	80		68		40-140	16		50
Indeno(1,2,3-cd)pyrene	72		65		40-140	10		50
Pyrene	78		66		35-142	17		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1445289-2 WG1445289-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	72		63		25-120
Phenol-d6	72		60		10-120
Nitrobenzene-d5	64		57		23-120
2-Fluorobiphenyl	78		65		30-120
2,4,6-Tribromophenol	88		77		10-136
4-Terphenyl-d14	84		72		18-120

PCBS

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03
Client ID: TP-4 4-5'
Sample Location: LACKAWANNA, NY

Date Collected: 12/10/20 10:15
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/18/20 05:20
Analyst: CW
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 12/16/20 11:10
Cleanup Method: EPA 3665A
Cleanup Date: 12/18/20
Cleanup Method: EPA 3660B
Cleanup Date: 12/18/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.9	3.45	1	A
Aroclor 1221	ND		ug/kg	38.9	3.89	1	A
Aroclor 1232	ND		ug/kg	38.9	8.24	1	A
Aroclor 1242	ND		ug/kg	38.9	5.24	1	A
Aroclor 1248	ND		ug/kg	38.9	5.83	1	A
Aroclor 1254	95.6		ug/kg	38.9	4.25	1	B
Aroclor 1260	75.0		ug/kg	38.9	7.18	1	A
Aroclor 1262	ND		ug/kg	38.9	4.94	1	A
Aroclor 1268	54.5		ug/kg	38.9	4.03	1	B
PCBs, Total	225		ug/kg	38.9	3.45	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	65		30-150	B

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/16/20 17:58
Analyst: CW

Extraction Method: EPA 3546
Extraction Date: 12/16/20 11:10
Cleanup Method: EPA 3665A
Cleanup Date: 12/16/20
Cleanup Method: EPA 3660B
Cleanup Date: 12/16/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 03 Batch: WG1445884-1						
Aroclor 1016	ND		ug/kg	32.3	2.87	A
Aroclor 1221	ND		ug/kg	32.3	3.24	A
Aroclor 1232	ND		ug/kg	32.3	6.85	A
Aroclor 1242	ND		ug/kg	32.3	4.36	A
Aroclor 1248	ND		ug/kg	32.3	4.85	A
Aroclor 1254	ND		ug/kg	32.3	3.54	A
Aroclor 1260	ND		ug/kg	32.3	5.97	A
Aroclor 1262	ND		ug/kg	32.3	4.10	A
Aroclor 1268	ND		ug/kg	32.3	3.35	A
PCBs, Total	ND		ug/kg	32.3	2.87	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	88		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 03 Batch: WG1445884-2 WG1445884-3									
Aroclor 1016	66		66		40-140	0		50	A
Aroclor 1260	60		60		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		70		30-150	A
Decachlorobiphenyl	68		68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		73		30-150	B
Decachlorobiphenyl	87		84		30-150	B

METALS

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-01 Date Collected: 12/10/20 09:00

Client ID: TP-1 0-0.5' Date Received: 12/11/20

Sample Location: LACKAWANNA, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	9.82		mg/kg	0.429	0.089	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Barium, Total	186		mg/kg	0.429	0.075	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Cadmium, Total	5.02		mg/kg	0.429	0.042	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Chromium, Total	328		mg/kg	0.429	0.041	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Lead, Total	773		mg/kg	2.15	0.115	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Mercury, Total	0.176		mg/kg	0.070	0.046	1	12/18/20 08:00	12/19/20 11:56	EPA 7471B	1,7471B	EW
Selenium, Total	7.01		mg/kg	0.858	0.111	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV
Silver, Total	3.34		mg/kg	0.429	0.121	1	12/18/20 06:30	12/18/20 23:08	EPA 3050B	1,6010D	BV

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-02 Date Collected: 12/10/20 09:50

Client ID: TP-3 0-2' Date Received: 12/11/20

Sample Location: LACKAWANNA, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	10.5		mg/kg	0.458	0.095	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Barium, Total	160		mg/kg	0.458	0.080	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Cadmium, Total	1.25		mg/kg	0.458	0.045	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Chromium, Total	16.8		mg/kg	0.458	0.044	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Lead, Total	283		mg/kg	2.29	0.123	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Mercury, Total	1.07		mg/kg	0.077	0.050	1	12/18/20 08:00	12/19/20 11:59	EPA 7471B	1,7471B	EW
Selenium, Total	1.41		mg/kg	0.917	0.118	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV
Silver, Total	0.348	J	mg/kg	0.458	0.130	1	12/18/20 06:30	12/18/20 23:13	EPA 3050B	1,6010D	BV

Project Name: BETHLEHEM SOLAR PARK
Lab Number: L2055560
Project Number: T0557-020-001
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03
Client ID: TP-4 4-5'
Sample Location: LACKAWANNA, NY
Date Collected: 12/10/20 10:15
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.62		mg/kg	0.467	0.097	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Barium, Total	120		mg/kg	0.467	0.081	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Cadmium, Total	4.98		mg/kg	0.467	0.046	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Chromium, Total	114		mg/kg	0.467	0.045	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Lead, Total	86.2		mg/kg	2.33	0.125	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Mercury, Total	0.218		mg/kg	0.076	0.049	1	12/18/20 08:00	12/19/20 12:02	EPA 7471B	1,7471B	EW
Selenium, Total	3.60		mg/kg	0.934	0.120	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV
Silver, Total	0.929		mg/kg	0.467	0.132	1	12/18/20 06:30	12/18/20 23:18	EPA 3050B	1,6010D	BV

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-04 Date Collected: 12/10/20 11:22

Client ID: TP-7 0-1' Date Received: 12/11/20

Sample Location: LACKAWANNA, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12.3		mg/kg	0.551	0.114	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Barium, Total	504		mg/kg	0.551	0.096	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Cadmium, Total	7.58		mg/kg	0.551	0.054	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Chromium, Total	143		mg/kg	0.551	0.053	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Lead, Total	3600		mg/kg	2.75	0.148	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Mercury, Total	0.109		mg/kg	0.089	0.058	1	12/18/20 08:00	12/19/20 12:05	EPA 7471B	1,7471B	EW
Selenium, Total	3.08		mg/kg	1.10	0.142	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV
Silver, Total	0.622		mg/kg	0.551	0.156	1	12/18/20 06:30	12/18/20 23:23	EPA 3050B	1,6010D	BV

Project Name: BETHLEHEM SOLAR PARK
Lab Number: L2055560
Project Number: T0557-020-001
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-05
Client ID: TP-8 4-6'
Sample Location: LACKAWANNA, NY
Date Collected: 12/10/20 12:12
Date Received: 12/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	11.3		mg/kg	0.476	0.099	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Barium, Total	101		mg/kg	0.476	0.083	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Cadmium, Total	2.25		mg/kg	0.476	0.047	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Chromium, Total	25.0		mg/kg	0.476	0.046	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Lead, Total	115		mg/kg	2.38	0.128	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.077	0.050	1	12/18/20 08:00	12/19/20 12:09	EPA 7471B	1,7471B	EW
Selenium, Total	4.28		mg/kg	0.953	0.123	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV
Silver, Total	1.33		mg/kg	0.476	0.135	1	12/18/20 06:30	12/18/20 23:29	EPA 3050B	1,6010D	BV

Project Name: BETHLEHEM SOLAR PARK **Lab Number:** L2055560

Project Number: T0557-020-001 **Report Date:** 12/20/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1446032-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Barium, Total	ND		mg/kg	0.400	0.070	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Chromium, Total	0.048	J	mg/kg	0.400	0.038	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Lead, Total	ND		mg/kg	2.00	0.107	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD
Silver, Total	ND		mg/kg	0.400	0.113	1	12/18/20 06:30	12/18/20 19:54	1,6010D	GD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1446036-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	12/18/20 08:00	12/19/20 10:36	1,7471B	EW

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK

Project Number: T0557-020-001

Lab Number: L2055560

Report Date: 12/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1446032-2 SRM Lot Number: D109-540								
Arsenic, Total	104		-		70-130	-		
Barium, Total	102		-		75-125	-		
Cadmium, Total	97		-		75-125	-		
Chromium, Total	99		-		70-130	-		
Lead, Total	99		-		72-128	-		
Selenium, Total	102		-		68-132	-		
Silver, Total	103		-		68-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1446036-2 SRM Lot Number: D109-540								
Mercury, Total	76		-		60-140	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1446032-3 QC Sample: L2055626-02 Client ID: MS Sample												
Arsenic, Total	3.34	10	13.1	97		-	-		75-125	-		20
Barium, Total	64.1	167	225	96		-	-		75-125	-		20
Cadmium, Total	0.544J	4.27	4.44	104		-	-		75-125	-		20
Chromium, Total	23.8	16.7	38.8	90		-	-		75-125	-		20
Lead, Total	36.5	42.7	68.6	75		-	-		75-125	-		20
Selenium, Total	0.467J	10	9.39	93		-	-		75-125	-		20
Silver, Total	ND	25.1	23.3	93		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1446036-3 QC Sample: L2055626-02 Client ID: MS Sample												
Mercury, Total	0.121	0.14	0.258	98		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1446032-4 QC Sample: L2055626-02 Client ID: DUP Sample						
Arsenic, Total	3.34	3.20	mg/kg	4		20
Barium, Total	64.1	54.0	mg/kg	17		20
Cadmium, Total	0.544J	0.411J	mg/kg	NC		20
Chromium, Total	23.8	17.9	mg/kg	**28**	Q	20
Lead, Total	36.5	42.8	mg/kg	16		20
Selenium, Total	0.467J	0.480J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1446036-4 QC Sample: L2055626-02 Client ID: DUP Sample						
Mercury, Total	0.121	0.088	mg/kg	**31**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-01
Client ID: TP-1 0-0.5'
Sample Location: LACKAWANNA, NY
Sample Depth:
Matrix: Soil
Date Collected: 12/10/20 09:00
Date Received: 12/11/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.3		%	0.100	NA	1	-	12/12/20 13:29	121,2540G	RI

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-02
Client ID: TP-3 0-2'
Sample Location: LACKAWANNA, NY
Sample Depth:
Matrix: Soil
Date Collected: 12/10/20 09:50
Date Received: 12/11/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.0		%	0.100	NA	1	-	12/12/20 13:29	121,2540G	RI

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-03
Client ID: TP-4 4-5'
Sample Location: LACKAWANNA, NY
Sample Depth:
Matrix: Soil
Date Collected: 12/10/20 10:15
Date Received: 12/11/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	12/12/20 13:29	121,2540G	RI

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-04
Client ID: TP-7 0-1'
Sample Location: LACKAWANNA, NY
Sample Depth:
Matrix: Soil
Date Collected: 12/10/20 11:22
Date Received: 12/11/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.5		%	0.100	NA	1	-	12/12/20 13:29	121,2540G	RI

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001
Lab Number: L2055560
Report Date: 12/20/20

SAMPLE RESULTS

Lab ID: L2055560-05
Client ID: TP-8 4-6'
Sample Location: LACKAWANNA, NY
Sample Depth:
Matrix: Soil
Date Collected: 12/10/20 12:12
Date Received: 12/11/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	12/12/20 13:29	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: BETHLEHEM SOLAR PARK

Project Number: T0557-020-001

Lab Number: L2055560

Report Date: 12/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1444334-1 QC Sample: L2055668-01 Client ID: DUP Sample						
Solids, Total	90.6	88.9	%	2		20

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2055560-01A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		5.5	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2055560-01B	Glass 120ml/4oz unpreserved	B	NA		5.8	Y	Absent		NYCP51-PAH(14),TS(7)
L2055560-02A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		5.5	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2055560-02B	Glass 120ml/4oz unpreserved	C	NA		5.5	Y	Absent		NYCP51-PAH(14),TS(7)
L2055560-03A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		5.5	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2055560-03B	Glass 120ml/4oz unpreserved	C	NA		5.5	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(14)
L2055560-03C	Vial Large Septa unpreserved (4oz)	C	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L2055560-03X	Vial MeOH preserved split	C	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L2055560-03Y	Vial Water preserved split	C	NA		5.5	Y	Absent	**14-DEC-20 05:24**	NYTCL-8260-R2(14)
L2055560-03Z	Vial Water preserved split	C	NA		5.5	Y	Absent	**14-DEC-20 05:24**	NYTCL-8260-R2(14)
L2055560-04A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		5.5	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L2055560-04B	Glass 120ml/4oz unpreserved	C	NA		5.5	Y	Absent		NYCP51-PAH(14),TS(7)
L2055560-05A	Metals Only-Glass 60mL/2oz unpreserved	C	NA		5.5	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L2055560-05B	Glass 120ml/4oz unpreserved	C	NA		5.5	Y	Absent		NYCP51-PAH(14),TS(7)
L2055560-05C	Vial Large Septa unpreserved (4oz)	C	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L2055560-05X	Vial MeOH preserved split	C	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L2055560-05Y	Vial Water preserved split	C	NA		5.5	Y	Absent	**14-DEC-20 05:24**	NYTCL-8260-R2(14)
L2055560-05Z	Vial Water preserved split	C	NA		5.5	Y	Absent	**14-DEC-20 05:24**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: BETHLEHEM SOLAR PARK
Project Number: T0557-020-001

Lab Number: L2055560
Report Date: 12/20/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)

*Values in parentheses indicate holding time in days

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	BETHLEHEM SOLAR PARK	**Lab Number:**	L2055560
Project Number:	T0557-020-001	**Report Date:**	12/20/20

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 12/12/20

ALPHA Job #: L2055560

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike
Lackawanna NY 14218
Phone: (716) 818-8358
Fax:
Email: TBetrenell@Turnkeyllc.com

Project Information
Project Name: Bethlehem Steel Park
Project Location: Lackawanna NY
Project # T0557-020-001
(Use Project name as Project #) ☒
Project Manager: Ryan Maybeck
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8270 CP-51 SVOCs	RCRA 8 METALS	8260 CP-51+TCL VOC	PCBs					Sample Specific Comments	Total Bottle
55760-1	TP-1 0-0.5'	12/10/20	900	Soil	TAB	X	X								2
-2	TP-3 0-2'		950			X	X								2
-3	TP-4 4-5'		1015			X	X	X	X						3
-4	TP-7 0-1'		1122			X	X								2
-5	TP-8 4-6'		1212			X	X	X							3
Container Type						A	A	A	A						
Preservative						A	A	A	A						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	12/11/20 1220		
	12/11 1415		12/11 1305
			12/12/20 0210

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)