

March 10, 2020

Attention: Mr. Shane Nelson, RPM/OSC
U.S. Environmental Protection Agency – Region 2
290 Broadway, Floor 19
New York, NY 10007-1866

Subject: Quanta Resources Corporation Superfund Site, Operable Unit 1 (OU1), Edgewater, New Jersey, Progress Report: February 2020

Dear Mr. Nelson

This letter is the progress report required pursuant to the U.S. Environmental Protection Agency (EPA) Consent Decree for the Remedial Design (RD) and Remedial Action (RA) at the Quanta Resources Corporation Superfund Site, OU1, which was finalized with the courts on March 11, 2013.

Health and Safety

Through February 24, 2020, approximately 223,580 labor hours worked.

Work Completed

The activities completed during February to comply with the Consent Decree are described in the following subsections. Figure 1 (attached) depicts the work activities completed as of the end of February.

OU1 General Civil Work

- Supported site contractor operations and continued general site maintenance activities.
- Began restoration activities in ISS Area 6B (directly west of and adjacent to the Pier Building headhouse wall).

OU1 ISS

- Managed and maintained the soil stockpile in Area 7A.
- Completed installation of temporary cap in Tent 3-2 in ISS Area 3A (northwest corner of the Site). Relocated Tent 3-2 to the Tent 3-3 location (just south of Tent 3-2 location) after final air clearance testing was completed in Tent 3-2.
- Completed commissioning of Tent 3-3 in ISS Area 3A (northwest corner of the Site) and began debris removal and ISS activities. Three (3) cells (808 CY of material) were treated.
- Began debris removal and ISS activities in ISS Area 3A (northwest corner of the Site) outside of a tent. Ten (10) partial cells (689 CY of material) were treated.



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- Completed debris removal and ISS activities in Tent 7-2 located in ISS Area 7B (adjacent to bulkhead). Eleven (11) cells (2,480 CY of material) were treated.
- Loaded out soil stockpiled inside Tent 7-2 located in ISS Area 7B (adjacent to bulkhead) for offsite disposal to prepare to install permanent deadman/tie-rod system inside tent.
- Completed debris removal and ISS Area 6B (directly west of and adjacent to the Pier Building Headhouse wall) outside of a tent. Three (3) cells (some partial) (405 CY of material) were treated.

OU1 Bulkhead Installation

- Completed installation of permanent deadmen/tie-rod system in Segment B of the bulkhead located in ISS Area 6B (directly west of and adjacent to the Pier Building headhouse wall).

OU1 Vibration and Air Monitoring

- Continued with vibration and movement monitoring. Observed no vibrations outside the project limits during February.
- Continued perimeter air monitoring in accordance with the Perimeter Air Monitoring Plan and the applicable adjustments/addendums.

OU1 Offsite Waste Disposal

- Non-Hazardous
 - One hundred twenty-eight (128) 25-cy dump trucks of soil to Conestoga Landfill in Morgantown, PA.
 - Five (5) 30-cy roll-offs of wood debris to Conestoga Landfill in Morgantown, PA.
- Hazardous
 - No Hazardous waste was transported off-site in February.

OU1 NAPL Recovery

- Baildown tested RW4-2 on February 6.
- Pumped 35-gallons of NAPL from RW4-2.
- Sentinel wells measured on February 26.

Site Security, Maintenance, and Inspections

- Completed weekly boom and SWPP inspections on February 7, February 13, February 21, and February 28.
- Replaced inner and outer absorbent boom on February 25.

Two-Week Look-Ahead

- Resume pumping RW4-2 and perform baildown test at RW4-2.



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- Gauge sentry wells.
- Continue management of the soil stockpile in Area 7A.
- Complete installation of permanent deadman/tie-rod system inside Tent 7-2 located in ISS Area 7B (adjacent to the bulkhead and directly north of the Tent 7-1 location).
- Complete debris removal and ISS activities inside Tent 3-3 located in ISS Area 3A (northwest corner of Site) and potentially begin installation of temporary cap.
- Complete restoration activities in Area 6B (directly west of and adjacent to the Pier Building headhouse wall).
- Complete debris removal and ISS activities in Areas 3A and 4 outside of tents (immediately adjacent to the slope that runs along the northern and western side of the Site). Install temporary cap over completed ISS cells.
- Continue realigning onsite utilities to prepare for future ISS activities.

Data and Submittals

ISS Compliance Data Summary

All samples required to demonstrate ISS compliance with the unconfined compressive strength and permeability criteria, and the 90 percent leaching reduction goal have been collected as required by the approved remedial action work plan and QAPP this month. As defined by Section 2.6 of the EPA approved UFP-QAPP, conformance testing is performed on samples after a 28-day cure process. As defined by the EPA approved remedial design, conformance testing includes UCS, permeability, and leachability using EPA Method 1315. UCS and permeability tests provide results within 5-days after the 28-day cure process. EPA Method 1315M (the Semi-Dynamic Leaching Modified for Organics) provided as Attachment 2 of the UFP-QAPP, takes a total of 63-days to run (once the 28-day cure time has passed) followed by laboratory analysis, validation, and evaluation. Therefore, leaching results are available approximately 100-days after the 28-day cure time.

The attached ISS Results Dashboards (Attachment A) presents results for 28-day cure time conformance data results where available. No new data was received associated with leaching results for this reporting period.

Air Monitoring

Provided perimeter and offsite air monitoring data when received (typically daily) to EPA. These results were uploaded upon receipt to www.quantaremediation.com

Other Deliverables and Submittals

- Provided a revised schedule for completion associated with ISS activities to EPA on February 7.
- Submitted Biennial Waste Report to EPA on February 13, 2020.



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Receipt of Approvals/Denials

- None

Issues and Corrective Actions

No corrective actions were required during this reporting period.

Stakeholder Communication and Community Involvement

- Submitted the monthly progress report for January on February 7, 2020.
- Met with Borough of Edgewater officials on February 11 to begin discussions around the remedy within River Road and potential impacts to the Borough.
- Met with County engineers on February 25 to understand their upcoming roadway work within River Road and schedule for implementation. As part of the meeting, preliminary discussions were held on how the remedial action would be coordinated with the County's River Road upgrades.
- Reviewed and updated the Honeywell website as needed. Coordinated preparation of written updates and maps and submitted progress photos.
- Tracked community concerns and complaints. In February, no community concerns about odors were submitted through the call center or by email.
- Provided weekly and as-needed progress updates for email distribution to pier tenants.
- Submitted weekly updates to EPA summarizing upcoming site activities.
- Uploaded daily air monitoring results to www.quantaremediation.com

Activities Planned for Next 6 Weeks

- Continue with NAPL recovery operations and submit the next quarterly data transmittal.
- Continue weekly boom inspections and SWPPP inspections and associated maintenance.
- Complete ISS treatment, temporary capping activities and final air clearance testing inside Tent 3-3 and relocate Tent 3-3 to its next location in ISS Area 3A (Tent 3-4, north-west corner of the Site, north-west of Tent 3-3 location), Begin debris removal and ISS activities inside tent 3-4.
- Complete deadman/tie rod installation, temporary capping activities and final air clearance testing inside Tent 7-2 in ISS Area 7B (adjacent to the bulkhead) and relocate tent to its next location in ISS Area 8 (Tent 8-1, adjacent to the bulkhead, immediately north of Tent 7-2 location). Potentially begin debris removal and ISS activities inside Tent 8-1.
- Complete annual vapor intrusion sampling during the week of March 16.

Schedule Update and Delays

Updated schedule provided to EPA on February 7, 2020. ISS activities are planned to be completed by end of 2020. Frequent updates will be provided to EPA as necessary.



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Percent Complete

Work associated with the entire OU1 Remedial Action is approximately 68 percent complete.

Please feel free to contact me at 267-250-7387 or Steve Coladonato, Honeywell Remediation Manager, at 302-791-6738 if you have any questions or comments regarding the Quanta project.

Sincerely,

Stephen J. Zarlinski
Project Manager

Attachment – Figure 1 - ISS Status Map
In Situ Solidification/Stabilization Results Dashboard

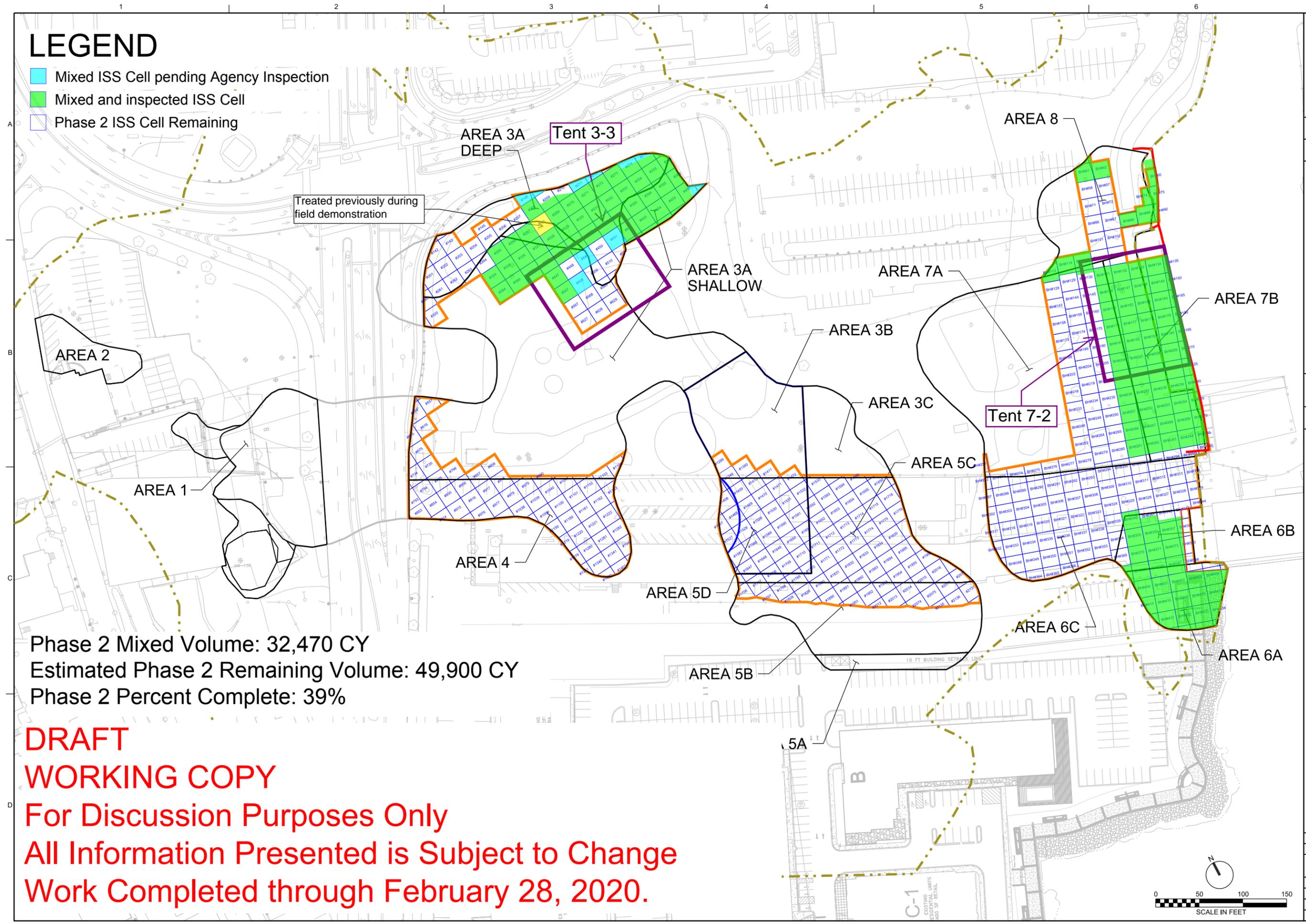
Copies to:

Clay Monroe (EPA)
Steve Coladonato (Honeywell)
Erica Bergman (NJDEP)
Helen Fahy (Fahy Associates)
Neil Ravensbergen (USACE)
Frank Rossi (Boswell)
Michael Johnson (USACE)
Devin Sokolich (Hongkun USA)

Rich Puvogel (EPA)
John Mojka (Honeywell)
Greg Franz (Borough of Edgewater)
Tim Johnson (Anchor QEA)
Rich Gajdek (USACE)
Neil Kolb (USACE)

LEGEND

- Mixed ISS Cell pending Agency Inspection
- Mixed and inspected ISS Cell
- Phase 2 ISS Cell Remaining



Phase 2 Mixed Volume: 32,470 CY
 Estimated Phase 2 Remaining Volume: 49,900 CY
 Phase 2 Percent Complete: 39%

DRAFT
WORKING COPY
 For Discussion Purposes Only
 All Information Presented is Subject to Change
 Work Completed through February 28, 2020.

NO.		DATE		DR		REVISION		BY		APVD	
DSGN		EA MCKENNA		PA KARABAN		CHK		APVD			
HONEYWELL INTERNATIONAL INC. QUANTA RESOURCES CORPORATION SUPERFUND SITE Edgewater, New Jersey											
JACOBS CIVIL PHASE 2 ISS CELLS											
1"=50' VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.											
DATE		428872									
PROJ		428872									
DWG		FIG-1									
SHEET		of									
FILENAME: 10-C-F201-9-24-19.dgn PLOT DATE: 2019/09/25 PLOT TIME: 10:12:09 AM											

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In Situ Solidification/Stabilization Results Dashboard, Tent 3-1 (Leaching Batch 5)

Quanta Resources Corporation Superfund Site, OU1

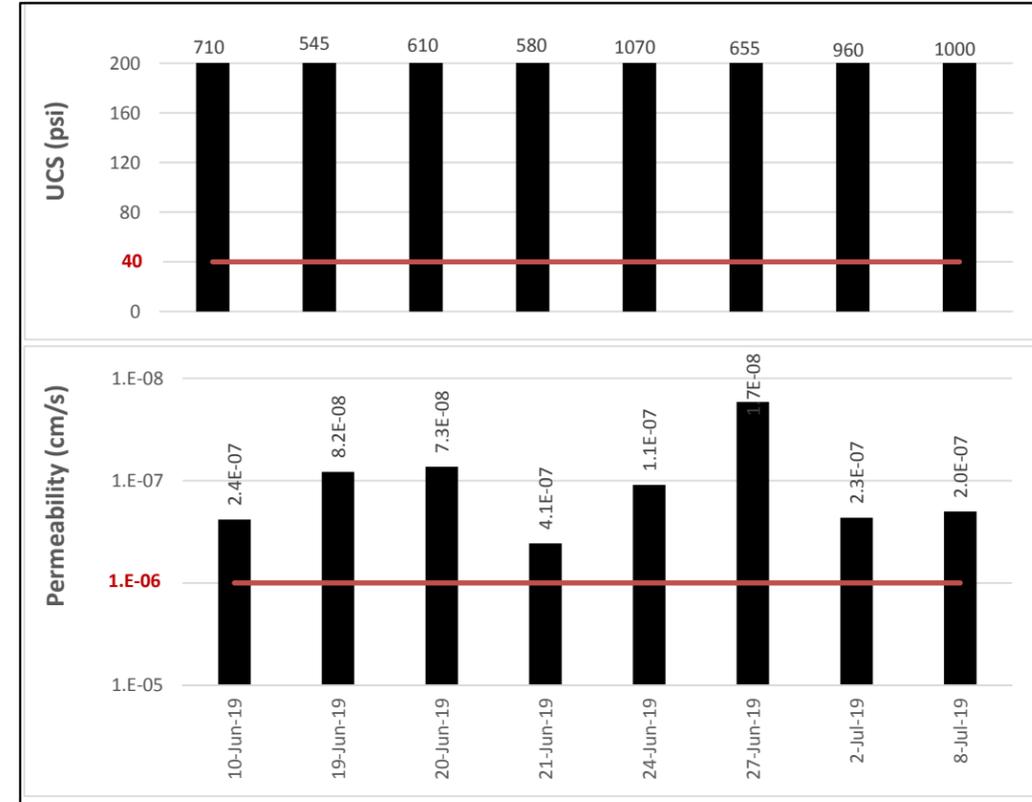
Data through: 2/4/2020

Tent	Date	Volume (CY)	Mix Design		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
3-1	10-Jun-19	288	2%	6%	710	2.40E-07
3-1	19-Jun-19	167	2%	6%	545	8.20E-08
3-1	20-Jun-19	166	2%	6%	610	7.30E-08
3-1	21-Jun-19	280	2%	6%	580	4.10E-07
3-1	24-Jun-19	147	2%	6%	1070	1.10E-07
3-1	27-Jun-19	343	2%	6%	655	1.70E-08
3-1	2-Jul-19	343	2%	6%	960	2.30E-07
3-1	8-Jul-19	342	2%	6%	1000	2.00E-07

Total CY Mixed: 2076

Leaching Reduction by Constituent		
Site Constituent	8-Jul-19	
1 Arsenic	97%	
2 Benzene	99%	
3 Toluene	99%	
4 Ethylbenzene	99%	
5 Total Xylenes	99%	
6 Naphthalene	96%	
7 Acenaphthene	88%	
8 Acenaphthylene	94%	
9 Anthracene	NE	<1% tPAH
10 Benzo(a)anthracene	NE	<1% tPAH
11 Benzo(a)pyrene	NE	<1% tPAH
12 Benzo(b)fluoranthene	NE	<1% tPAH
13 Benzo(g,h,i)perylene	NE	Not detected
14 Benzo(k)fluoranthene	NE	<1% tPAH
15 Chrysene	NE	<1% tPAH
16 Dibenz(a,h)anthracene	NE	Not detected
17 Fluoranthene	NE	<1% tPAH
18 Fluorene	83%	
19 Indeno(1,2,3-cd)pyrene	NE	Not detected
20 Phenanthrene	53%	
21 Pyrene	NE	<1% tPAH
Constituents Passing	7 of 10	

Leaching calculations for each constituent provided in the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE - Not Evaluated; constituent not detected in baseline sample or <1% of tPAH.



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green cells are mixed and have been inspected.

In Situ Solidification/Stabilization Results Dashboard, Tent 3-2 (Leaching Batch 5)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

Tent	Date	Volume (CY)	Mix Design		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
3-2	10-Sep-19	179	2%	6%	470	2.50E-07
3-2	11-Sep-19	339	2%	6%	65	2.30E-07
3-2	12-Sep-19	293	2%	6%	550	3.40E-07
3-2	13-Sep-19	182	2%	6%	490	5.70E-08
3-2	17-Sep-19	343	2%	6%	465	2.10E-07
3-2	23-Sep-19	342	2%	6%	330	2.00E-07
3-2	24-Sep-19	329	2%	6%	405	1.20E-07
3-2	25-Sep-19	328	2%	6%	690	2.30E-07
3-2	27-Sep-19	414	2%	6%	485	1.60E-07
3-2	30-Sep-19	304	2%	6%	830	2.90E-07
3-2	1-Oct-19	348	2%	6%	615	2.90E-07
3-2	2-Oct-19	355	2%	6%	775	2.40E-07
3-2	9-Oct-19	306	2%	6%	270	2.70E-07
3-2	11-Oct-19	320	2%	6%	80	2.60E-07
3-2	14-Oct-19	71	2%	6%	200	2.90E-07
3-2	17-Oct-19	301	2%	6%	145	9.00E-07
3-2	22-Oct-19	320	2%	6%	440	2.30E-07
3-2	29-Oct-19	273	2%	6%	130	2.90E-07
3-2	7-Nov-19	261	2%	6%	560	3.60E-07
3-2	12-Nov-19	327	2%	6%	510	2.10E-07
3-2	13-Nov-19	104	2%	6%	530	3.00E-07
3-2	15-Nov-19	203	2%	6%	205	3.90E-07
3-2	21-Nov-19	320	2%	6%	335	4.30E-07
3-2	22-Nov-19	90	2%	6%	615	6.30E-07
3-2	26-Nov-19	317	2%	6%	115	2.20E-07

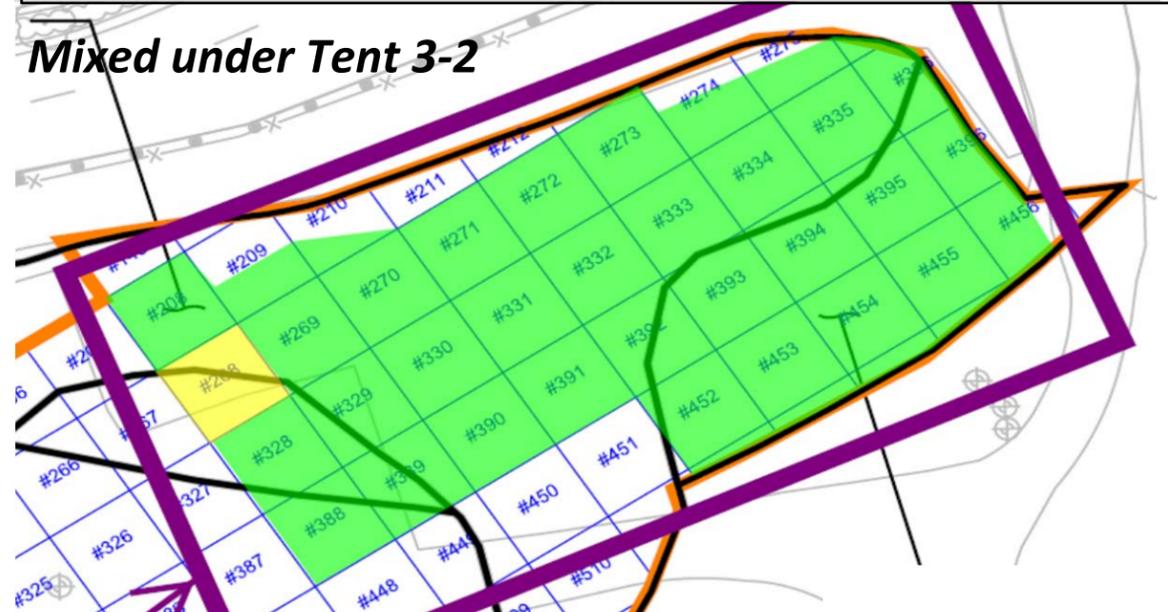
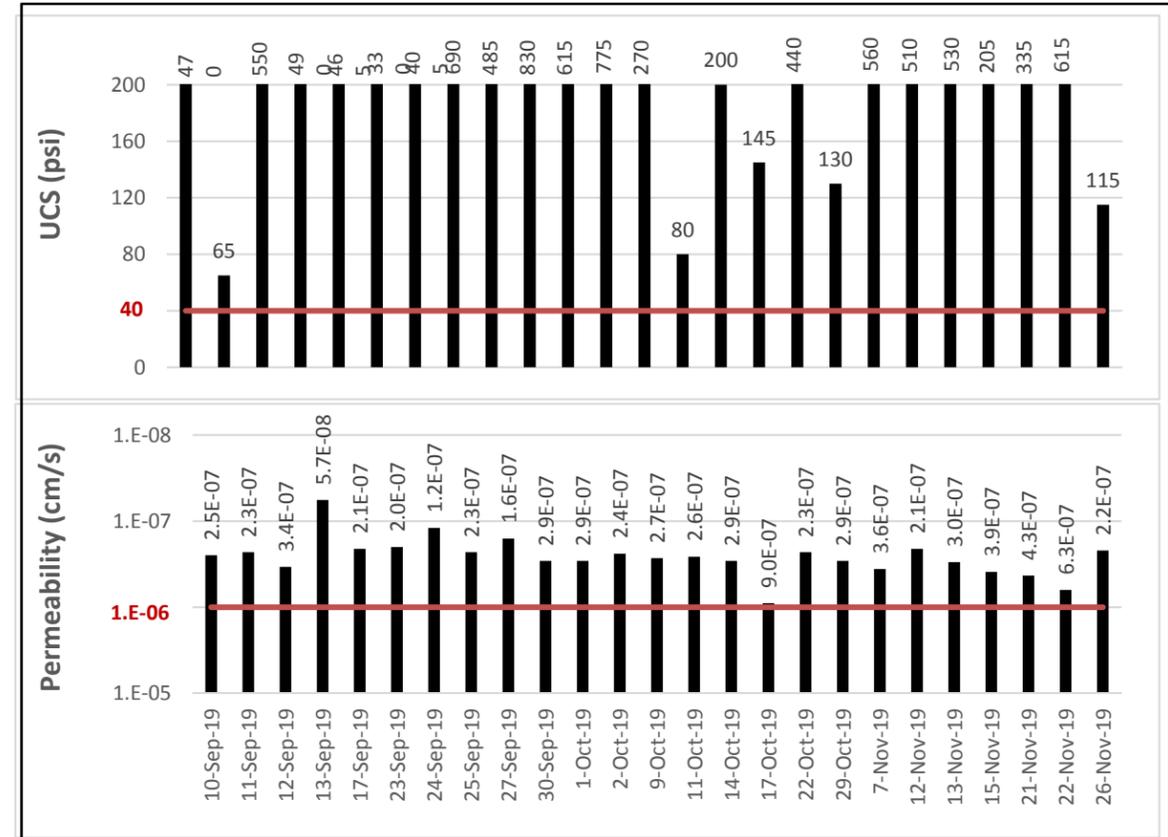
Total CY Mixed: 6969

Leaching Reduction by Constituent

Site Constituent	11-Oct-19	Site Constituent	11-Oct-19
1	Arsenic	12	Benzo(b)fluoranthene
2	Benzene	13	Benzo(g,h,i)perylene
3	Toluene	14	Benzo(k)fluoranthene
4	Ethylbenzene	15	Chrysene
5	Total Xylenes	16	Dibenz(a,h)anthracene
6	Naphthalene	17	Fluoranthene
7	Acenaphthene	18	Fluorene
8	Acenaphthylene	19	Indeno(1,2,3-cd)pyrene
9	Anthracene	20	Phenanthrene
10	Benzo(a)anthracene	21	Pyrene
11	Benzo(a)pyrene		

Data Pending

Constituents Passing:



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green cells are mixed and have been inspected. Yellow cells were previously mixed during the ISS Field Demonstration.

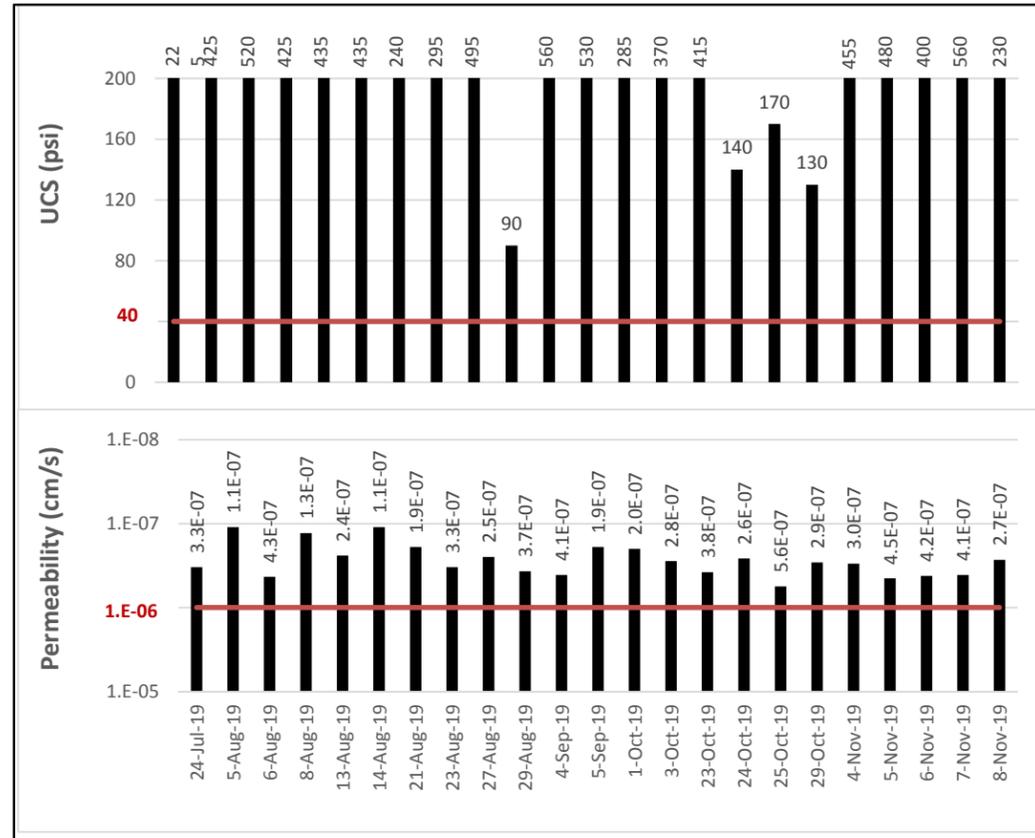
In Situ Solidification/Stabilization Results Dashboard, Tent 7-1 (Leaching Batch 6)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

Tent	Date	Volume (CY)	Mix Design		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
7-1	24-Jul-19	536	2%	6%	225	3.3E-07
7-1	5-Aug-19	494	2%	6%	425	1.1E-07
7-1	6-Aug-19	488	2%	6%	520	4.3E-07
7-1	8-Aug-19	468	2%	6%	425	1.3E-07
7-1	13-Aug-19	502	2%	6%	435	2.4E-07
7-1	14-Aug-19	524	2%	6%	435	1.1E-07
7-1	21-Aug-19	354	2%	6%	240	1.9E-07
7-1	23-Aug-19	323	2%	6%	295	3.3E-07
7-1	27-Aug-19	291	2%	6%	495	2.5E-07
7-1	29-Aug-19	298	2%	6%	90	3.7E-07
7-1	4-Sep-19	335	2%	6%	560	4.1E-07
7-1	5-Sep-19	282	2%	6%	530	1.9E-07
7-1	1-Oct-19	457	2%	6%	285	2.0E-07
7-1	3-Oct-19	246	2%	6%	370	2.8E-07
7-1	23-Oct-19	596	2%	6%	415	3.8E-07
7-1	24-Oct-19	290	2%	6%	140	2.6E-07
7-1	25-Oct-19	308	2%	6%	170	5.6E-07
7-1	29-Oct-19	296	2%	6%	130	2.9E-07
7-1	4-Nov-19	260	2%	6%	455	3.0E-07
7-1	5-Nov-19	268	2%	6%	480	4.5E-07
7-1	6-Nov-19	159	2%	6%	400	4.2E-07
7-1	7-Nov-19	262	2%	6%	560	4.1E-07
7-1	8-Nov-19	276	2%	6%	230	2.7E-07

Total CY Mixed: **8311**



Leaching Reduction by Constituent		8-Aug-19	23-Oct-19
1	Arsenic	100%	
2	Benzene	100%	
3	Toluene	100%	
4	Ethylbenzene	98%	
5	Total Xylenes	97%	
6	Naphthalene	99%	
7	Acenaphthene	NE; <1% tPAH	
8	Acenaphthylene	NE; <1% tPAH	
9	Anthracene	NE; <1% tPAH	
10	Benzo(a)anthracene	NE; <1% tPAH	
11	Benzo(a)pyrene	NE; <1% tPAH	
12	Benzo(b)fluoranthene	NE; <1% tPAH	
13	Benzo(g,h,i)perylene	NE; not detected	
14	Benzo(k)fluoranthene	NE; not detected	
15	Chrysene	NE; <1% tPAH	
16	Dibenz(a,h)anthracene	NE; not detected	
17	Fluoranthene	NE; <1% tPAH	
18	Fluorene	NE; <1% tPAH	
19	Indeno(1,2,3-cd)pyrene	NE; not detected	
20	Phenanthrene	NE; <1% tPAH	
21	Pyrene	NE; <1% tPAH	
Constituents Passing		6 of 6	

Data Pending

Leaching calculations for each constituent provided in Attachment 5 of the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE - Not Evaluated; constituent not detected in baseline sample or comprises less than 1% of total PAHs



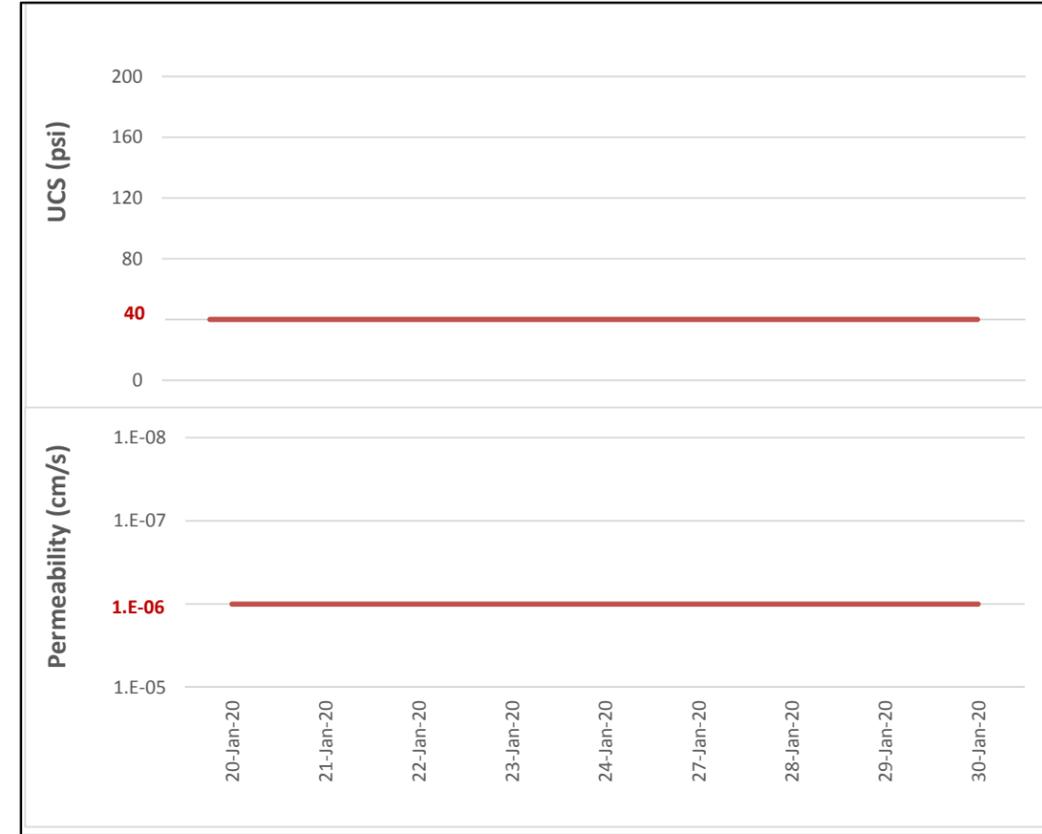
In Situ Solidification/Stabilization Results Dashboard, Tent 7-2 (Leaching Batch 6)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

Tent	Date	Volume (CY)	Mix Design		UCS (≥ 40 psi)	Permeability ($\leq 1E-6$ cm/s)
			Cement	Slag		
7-2	20-Jan-20	312	4%	6%	Data Pending	
7-2	21-Jan-20	472	4%	6%		
7-2	22-Jan-20	564	4%	6%		
7-2	23-Jan-20	394	4%	6%		
7-2	24-Jan-20	538	4%	6%		
7-2	27-Jan-20	352	4%	6%		
7-2	28-Jan-20	312	4%	6%		
7-2	29-Jan-20	267	4%	6%		
7-2	30-Jan-20	338	4%	6%		

Total CY Mixed: **3549**

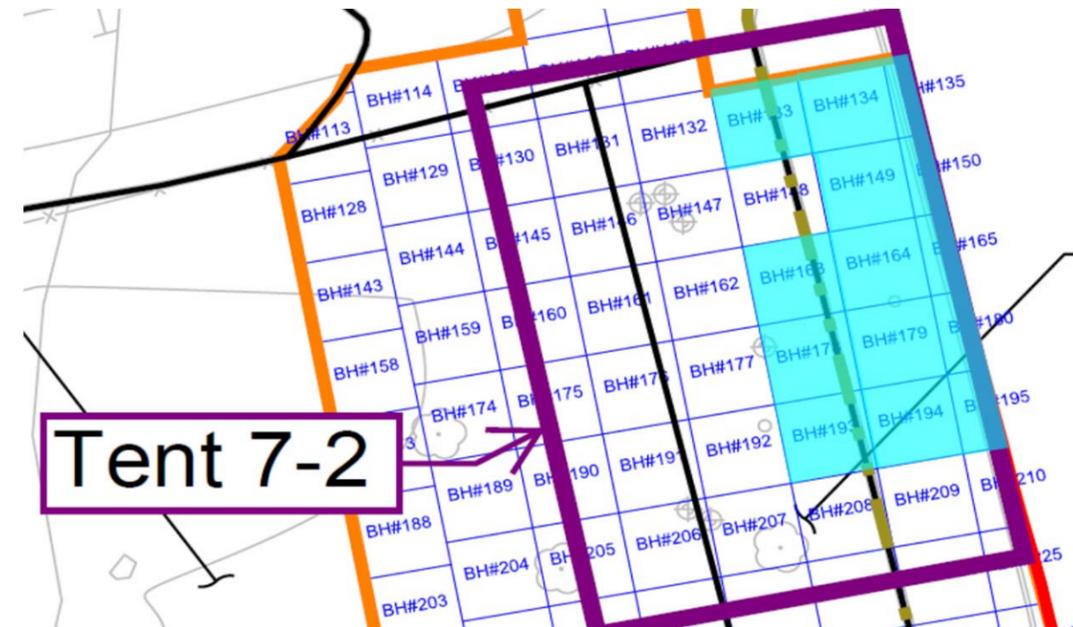


Leaching Reduction by Constituent	30-Jan-20
1 Arsenic	
2 Benzene	
3 Toluene	
4 Ethylbenzene	
5 Total Xylenes	
6 Naphthalene	
7 Acenaphthene	
8 Acenaphthylene	
9 Anthracene	
10 Benzo(a)anthracene	
11 Benzo(a)pyrene	
12 Benzo(b)fluoranthene	
13 Benzo(g,h,i)perylene	
14 Benzo(k)fluoranthene	
15 Chrysene	
16 Dibenz(a,h)anthracene	
17 Fluoranthene	
18 Fluorene	
19 Indeno(1,2,3-cd)pyrene	
20 Phenanthrene	
21 Pyrene	

Constituents Passing

Data Pending

Leaching calculations for each constituent provided in Attachment 5 of the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE - Not Evaluated; constituent not detected in baseline sample or comprises less than 1% of total PAHs



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green cells are mixed and have been inspected.

In Situ Solidification/Stabilization Results Dashboard, NT-61 (Leaching Batch 7)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

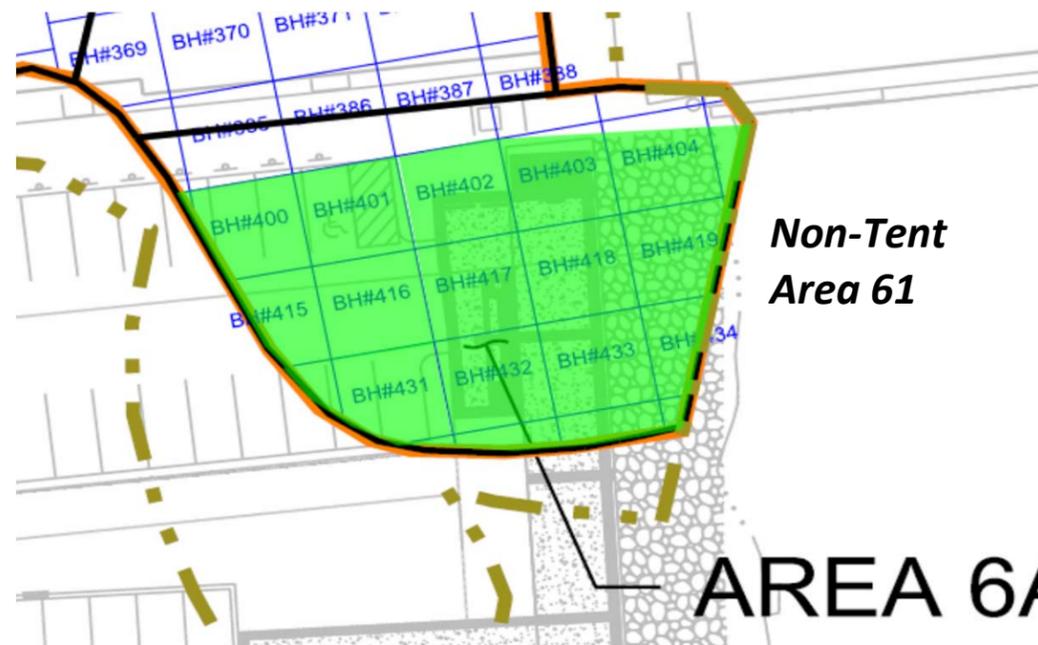
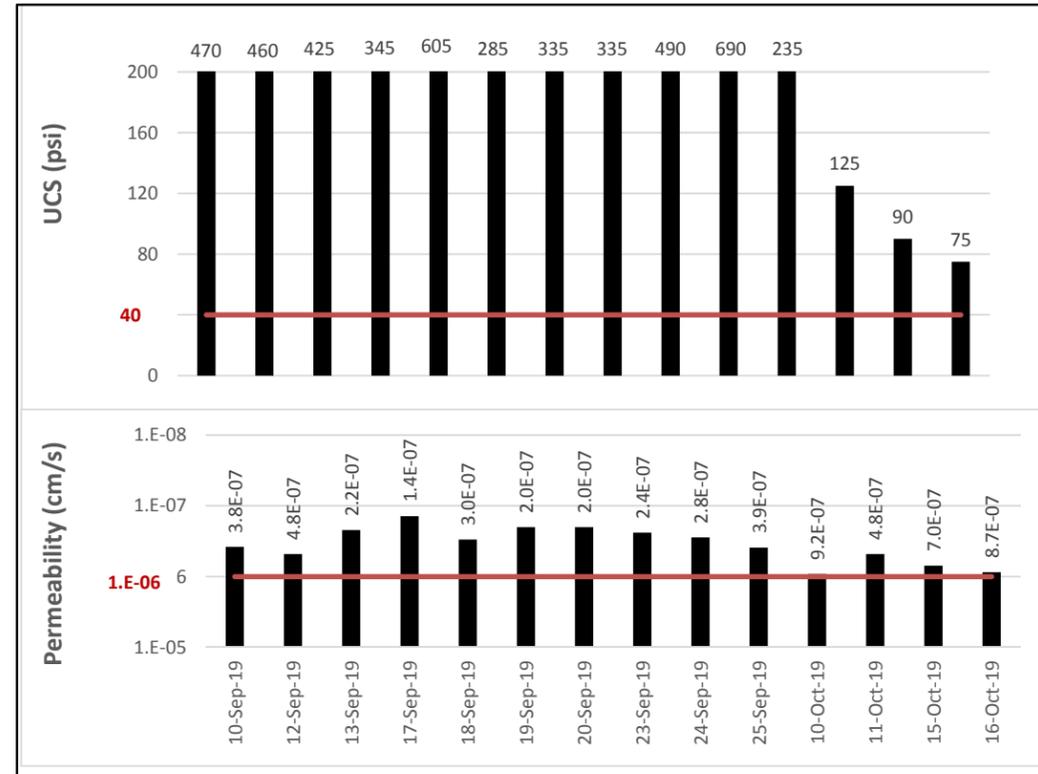
Area	Date	Volume (CY)	Mix Design		UCS (≥ 40 psi)	Permeability ($\leq 1E-6$ cm/s)
			Cement	Slag		
NT-61	10-Sep-19	237	4%	6%	470	3.8E-07
NT-61	12-Sep-19	247	4%	6%	460	4.8E-07
NT-61	13-Sep-19	220	4%	6%	425	2.2E-07
NT-61	17-Sep-19	292	4%	6%	345	1.4E-07
NT-61	18-Sep-19	266	4%	6%	605	3.0E-07
NT-61	19-Sep-19	354	4%	6%	285	2.0E-07
NT-61	20-Sep-19	239	4%	6%	335	2.0E-07
NT-61	23-Sep-19	244	4%	6%	335	2.4E-07
NT-61	24-Sep-19	221	4%	6%	490	2.8E-07
NT-61	25-Sep-19	226	4%	6%	690	3.9E-07
NT-61	10-Oct-19	225	4%	6%	235	9.2E-07
NT-61	11-Oct-19	210	4%	6%	125	4.8E-07
NT-61	15-Oct-19	172	4%	6%	90	7.0E-07
NT-61	16-Oct-19	118	4%	6%	75	8.7E-07

Total CY Mixed: **3271**

Leaching Reduction by Constituent		
Site Constituent	13-Sep-19	
1 Arsenic	100%	
2 Benzene	NE; not detected	
3 Toluene	NE; not detected	
4 Ethylbenzene	NE; not detected	
5 Total Xylenes	NE; not detected	
6 Naphthalene	NE; not detected	
7 Acenaphthene	NE; not detected	
8 Acenaphthylene	NE; not detected	
9 Anthracene	NE; not detected	
10 Benzo(a)anthracene	NE; not detected	
11 Benzo(a)pyrene	NE; not detected	
12 Benzo(b)fluoranthene	NE; not detected	
13 Benzo(g,h,i)perylene	NE; not detected	
14 Benzo(k)fluoranthene	NE; not detected	
15 Chrysene	NE; not detected	
16 Dibenz(a,h)anthracene	NE; not detected	
17 Fluoranthene	NE; not detected	
18 Fluorene	0%	Low baseline; no reduction
19 Indeno(1,2,3-cd)pyrene	NE; not detected	
20 Phenanthrene	0%	Low baseline; no reduction
21 Pyrene	0%	Low baseline; no reduction

Constituents Passing **1 of 4**

Leaching calculations for each constituent provided in the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE - Not Evaluated.



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green cells are mixed and have been inspected.

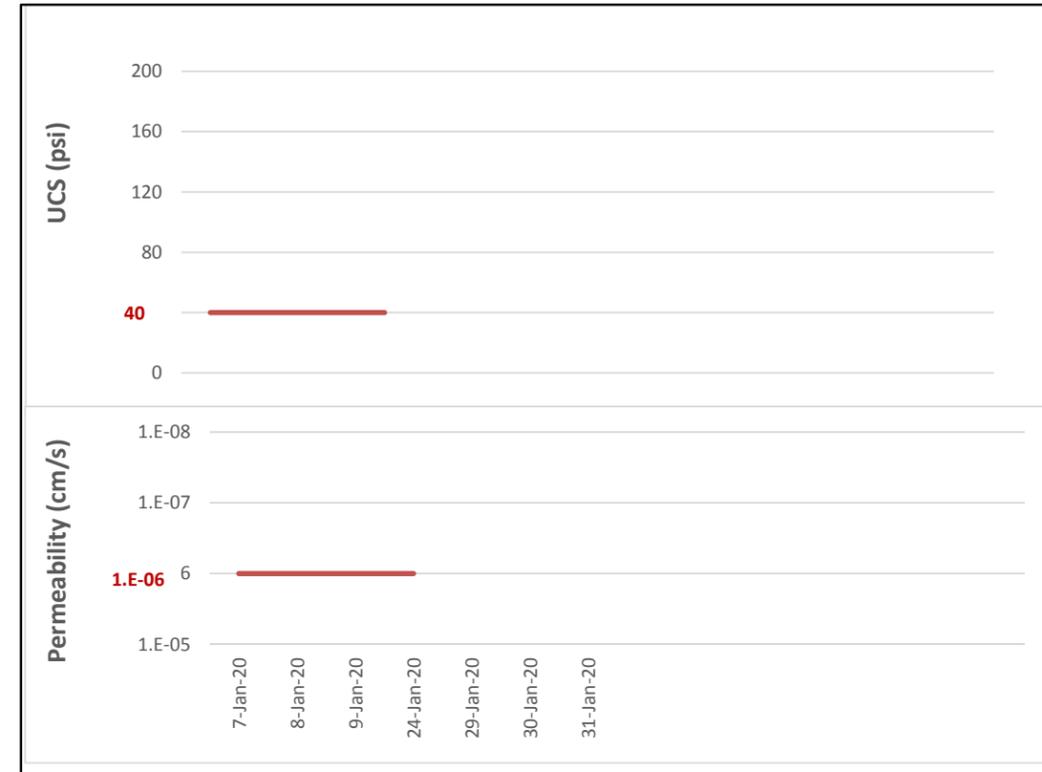
In Situ Solidification/Stabilization Results Dashboard, NT-62 (Leaching Batch 7)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

Area	Date	Volume (CY)	Mix Design		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
NT-62	7-Jan-20	236	4%	6%	Data Pending	
NT-62	8-Jan-20	188	4%	6%		
NT-62	9-Jan-20	142	4%	6%		
NT-62	24-Jan-20	271	4%	6%		
NT-62	29-Jan-20	195	4%	6%		
NT-62	30-Jan-20	186	4%	6%		
NT-62	31-Jan-20	173	4%	6%		

Total CY Mixed: **1390**

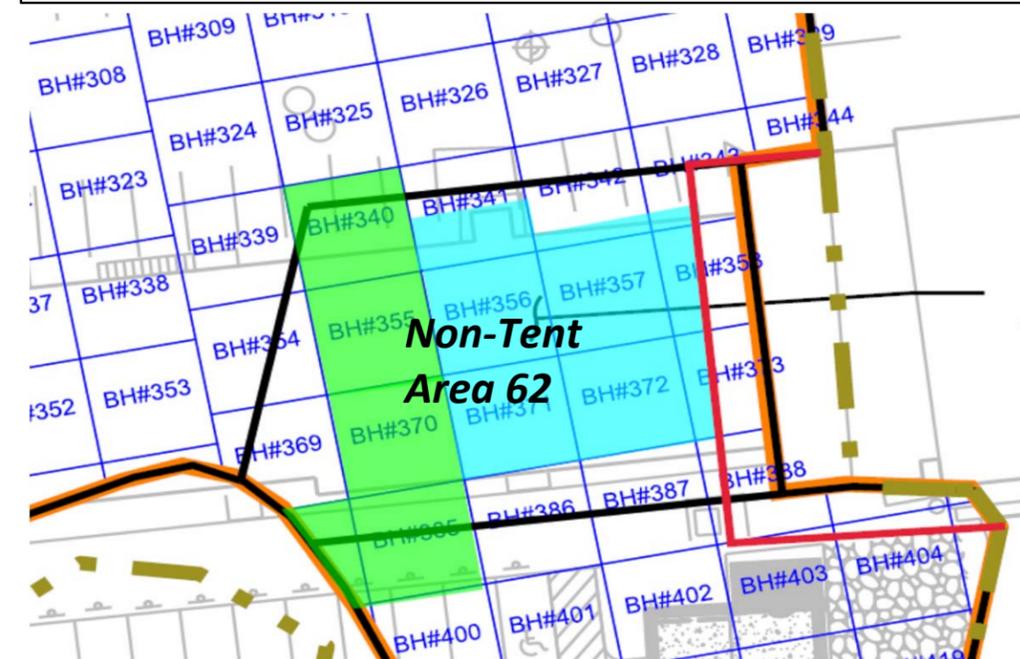


Leaching Reduction by Constituent

Site Constituent	Constituents Passing
1 Arsenic	
2 Benzene	
3 Toluene	
4 Ethylbenzene	
5 Total Xylenes	
6 Naphthalene	
7 Acenaphthene	
8 Acenaphthylene	
9 Anthracene	
10 Benzo(a)anthracene	
11 Benzo(a)pyrene	
12 Benzo(b)fluoranthene	
13 Benzo(g,h,i)perylene	
14 Benzo(k)fluoranthene	
15 Chrysene	
16 Dibenz(a,h)anthracene	
17 Fluoranthene	
18 Fluorene	
19 Indeno(1,2,3-cd)pyrene	
20 Phenanthrene	
21 Pyrene	

Constituents Passing

Leaching calculations for each constituent provided in the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE - Not Evaluated.



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green cells are mixed and have been inspected.

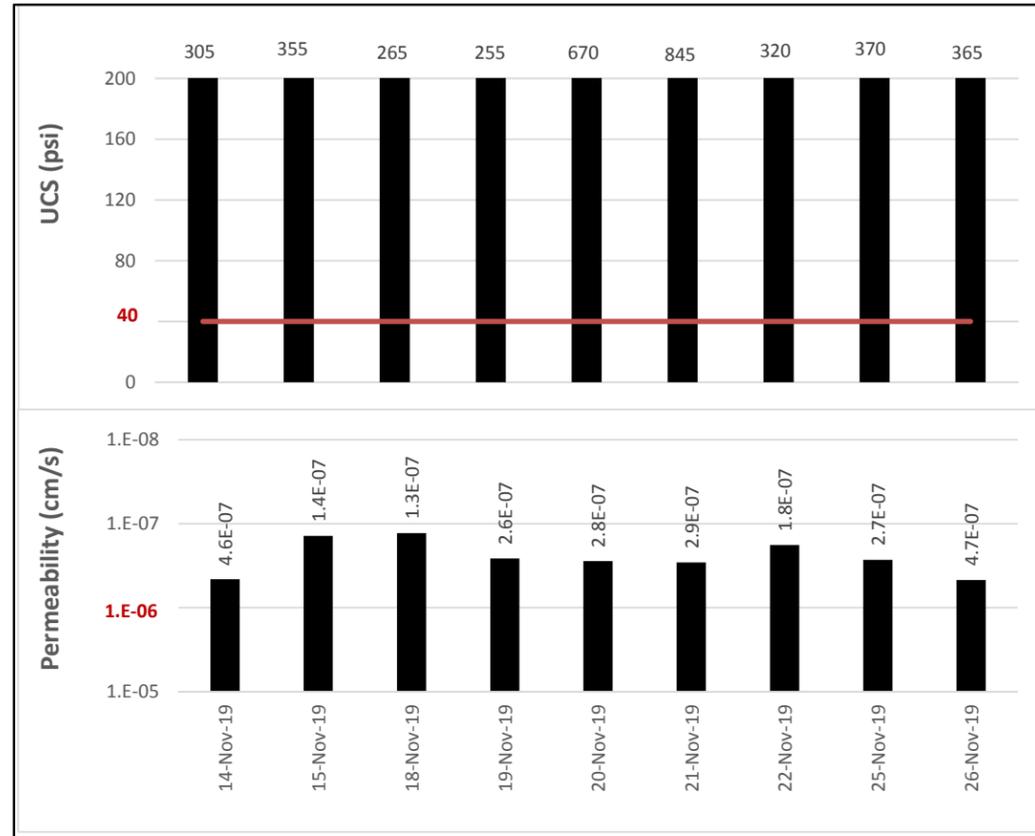
In Situ Solidification/Stabilization Results Dashboard, Area 8 (Leaching Batch 8)

Quanta Resources Corporation Superfund Site, OU1

Data through: 2/4/2020

Area	Date	Volume (CY)	Mix Design		UCS (≥ 40 psi)	Permeability ($\leq 1E-6$ cm/s)
			Cement	Slag		
8	14-Nov-19	234	2%	6%	305	4.6E-07
8	15-Nov-19	125	2%	6%	355	1.4E-07
8	18-Nov-19	172	2%	6%	265	1.3E-07
8	19-Nov-19	304	2%	6%	255	2.6E-07
8	20-Nov-19	116	2%	6%	670	2.8E-07
8	21-Nov-19	195	2%	6%	845	2.9E-07
8	22-Nov-19	104	2%	6%	320	1.8E-07
8	25-Nov-19	123	2%	6%	370	2.7E-07
8	26-Nov-19	88	2%	6%	365	4.7E-07

Total CY Mixed: **1460**



Leaching Reduction by Constituent		25-Nov-19
1	Arsenic	
2	Benzene	
3	Toluene	
4	Ethylbenzene	
5	Total Xylenes	
6	Naphthalene	
7	Acenaphthene	
8	Acenaphthylene	
9	Anthracene	
10	Benzo(a)anthracene	
11	Benzo(a)pyrene	
12	Benzo(b)fluoranthene	
13	Benzo(g,h,i)perylene	
14	Benzo(k)fluoranthene	
15	Chrysene	
16	Dibenz(a,h)anthracene	
17	Fluoranthene	
18	Fluorene	
19	Indeno(1,2,3-cd)pyrene	
20	Phenanthrene	
21	Pyrene	
Constituents Passing		

Data Pending

Leaching calculations for each constituent provided in Attachment 5 of the ISS Memo for this Parcel. Boxed sample dates on table above indicate collection of a leaching sample. Constituents with 90+% reduction are shaded green. NE



Note: Mixed areas awaiting EPA inspection indicated with blue shading. Green