

Mr. Shane Nelson, RPM/OSC
U.S. Environmental Protection Agency—Region 2
Emergency and Remedial Response Division
290 Broadway, Floor 19
New York, NY 10007-1866

April 10, 2018

Subject: Quanta Resources Corporation Superfund Site, Operable Unit 1 (OU1), Edgewater, New Jersey, Progress Report: March 2018

Dear Mr. Nelson,

This letter is the progress report required pursuant to the U.S. Environmental Protection Agency (EPA) Consent Decree (CD) 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 March 2018, approximately 80,005 man-hours worked without a lost-time incident
- No recordable incidents occurred during the month of March

Work Completed

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

Figure 1. Bulkhead and ISS Progress through March 2018

ISS Areas shown are approximate and not drawn to scale



OU1 NAPL Recovery

- Gauged accessible sentry wells on March 6, 2018. RW3-3 was inaccessible to recent rainfall and was therefore not gauged during this time.
- Performed routine maintenance on the RW4-2 pump
- 54 gallons of NAPL were collected from RW4-2 during recovery operations in March
- EWMI transported 5 drums from the site on March 29, 2018

OU1 General Civil Work

- Continued debris removal and concrete crushing operations, as needed
- Performed clearing and debris removal in ISS Area 3A
- Started preparation for the work around the Pier Building
- Continued with odor/dust suppression and stockpile management, as needed
- Performed site clean-up activities
- Performed backfilling of materials for the Area 7B Pilot
- Performed overall consolidation of stockpiles and open areas of the site to reduce overall footprint of activities.

OU1 Bulkhead Installation

- No work performed this month

OU1 In Situ Solidification/Stabilization

- In March twenty-eight (28) cells (3,500 CY of material) located within Areas 3A, 3C, 7B, and 8 were mixed. (see attached dashboards for maps)
- Performed the Area 7B pilot
- Following reduction of open treated areas, restarted ISS activities on March 29 within Area 8
- Performed site clean-up activities
- Perimeter misting systems was used on days when the temperature was above freezing

OU1 Vibration and Air Monitoring

- Continued with vibration and movement monitoring
- Continued perimeter air monitoring in accordance with the Perimeter Air Monitoring Plan. Perimeter Air monitoring was increased to include a total of 9 offsite locations and 3 onsite locations. Each location is being sampled for a 10-hour and a 24-hour time period.
- No vibrations outside of the project limits were noted during the month of March

OU1 Offsite Waste Disposal

- Hazardous
 - Two (2) 55-gallon drums of NAPL to Veolia in Middlesex, NJ
 - Three (3) 55-gallon drums of NAPL stained PPE to Cycle Chem in Lewisburg, PA
- Non-hazardous
 - Four (4) 20-CY roll offs of Asphalt to C.E.C.S, Inc
 - Two (2) 30-CY roll offs of mixed metals to Evergreen Recycling Solutions
 - Two (2) 30-CY roll offs of NAPL contaminated pipe to the Conestoga landfill in Morgantown, PA
 - Two (2) 30-CY roll offs of treated wood material to C.E.C.S, Inc
 - One (1) 10-CY roll off of NAPL stained PPE to Evergreen Recycling Solutions

OU1 HCAA

- Met with EPA on March 12 to discuss the proposed next steps to be taken associated with the HCAA.
- Began development of a report to detail past treatability results and proposed remedial action for the HCAA.

OU1 Annual Vapor Intrusion Investigation

- Began preparation of NJDEP data submittals and the annual Vapor Intrusion Report for the properties at 163 Old River Road and 103 River Road.

Site Security, Maintenance, and Inspections

- Completed weekly boom inspections and SWPP inspections on March 1, March 6, March 14, March 23, and March 28, 2018
- No site security issues for the month of March 2018

Two Week Look Ahead

- Continue twice weekly pumping at RW4-2
- Gauge sentry wells
- Clear and ISS in Area 8

Data and Submittals

ISS Compliance Data Summary

All required samples 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. The ISS Results Dashboards (Attachment A) presents both results for 28-day cure time compliance samples and earlier conformance data results (that is, for cure times less than 28 days) where available. All compliance sample results received in the past month met the ROD requirements.

The first complete ISS Completion Package was submitted on January 8th for Block 93. As detailed in the report, Honeywell is requesting concurrence from EPA that in-situ stabilization was completed in accordance with the EPA-approved *Remedial Design and Remedial Action Work Plan*.

Air Monitoring

- Provided perimeter air monitoring data weekly to EPA.
- Submitted a technical memorandum detailing the proposed offsite air sampling at City Place on March 6, 2018.
- Received comments from EPA on the Perimeter Air Monitoring Plan Addendum on March 13, 2018. Response to comments were provided back to EPA on March 27, 2018
- Submitted the Quarterly Perimeter Air Monitoring Results Data Report on March 27, 2018 to EPA and NJDEP.

Other Deliverables and Submittals

Submitted the 2016-2017 Annual NAPL Recovery Report to EPA and NJDEP on March 15, 2018.

Issues and Corrective Actions

Below section details issues and corrective actions encountered during the reporting period.

Air Monitoring/Emission Controls

Three odor complaints were received during March. As a result of this, additional actions are being taken:

- Offsite/Increased analytical air sampling has started which include 10 hours and 24 hours samples at following locations:
 - FD-01
 - FD-02
 - FD-06
 - 3 locations at City Place
 - 3 locations Independence Harbor
 - 3 location at iPark
- ISS and crushing of concrete was temporarily suspended while working areas were reconfigured to reduce the overall footprint on site.
- During the two week period mentioned above, significant effort was focused on site maintenance with the intent of reducing odors generated by the materials on the site and improving aesthetic appearance of the site to the community. This included, “closing out” completed and inspected ISS areas and establishing smaller exclusion zones, along with peripheral contaminant reduction zones (CRZs) for future work areas. Specific activities include:
 - Completed ISS areas have been and will continue to be finished as follows:
 - Any non-treated soil berms to be scrapped away
 - ISS completed areas of the site to be graded to promote storm water management
 - Demarcation layers to be placed on all completed ISS areas and gravel/DGA (type and depth vary based on plan [i.e., haul road, staging areas, etc.) to be placed over top of all completed ISS areas.
 - Completed ISS Areas to be demarcated and only used for clean equipment staging/storage. Decontamination pads will be set up in two areas of the site to prevent tracking of impacted materials around the site.
 - Improved a haul road across the site.
 - Modified site procedures to limit intrusive work in areas outside of active ISS areas as well as active management of stockpiles to mitigate odors.
- Implemented a richer mix of Portland cement for long-term Posi-Shell applications
- Evaluated emission sources using an odor sniffer and HAPSITE.

Vapor Intrusion Samples

Results received from the vapor intrusion sampling on March 15, 2018. Preparation of NJDEP submittals have been started.

Stakeholder Communication and Community Involvement

- Prepared for and attended a public meeting on March 28.
- Submitted the monthly progress report for February on March 9.
- Tracked community concerns and complaints. In March, there were 3 residential concerns submitted to EPA, Honeywell, the Bergen County Department of Health, NJDEP, or CH2M.
- Hosted and attended biweekly calls on March 29 with EPA, NJDEP, USACE, Honeywell, and CH2M
- Provided weekly and as-needed progress updates for email distribution to pier tenants.
- Uploaded daily air monitoring results to www.quantaremediation.com

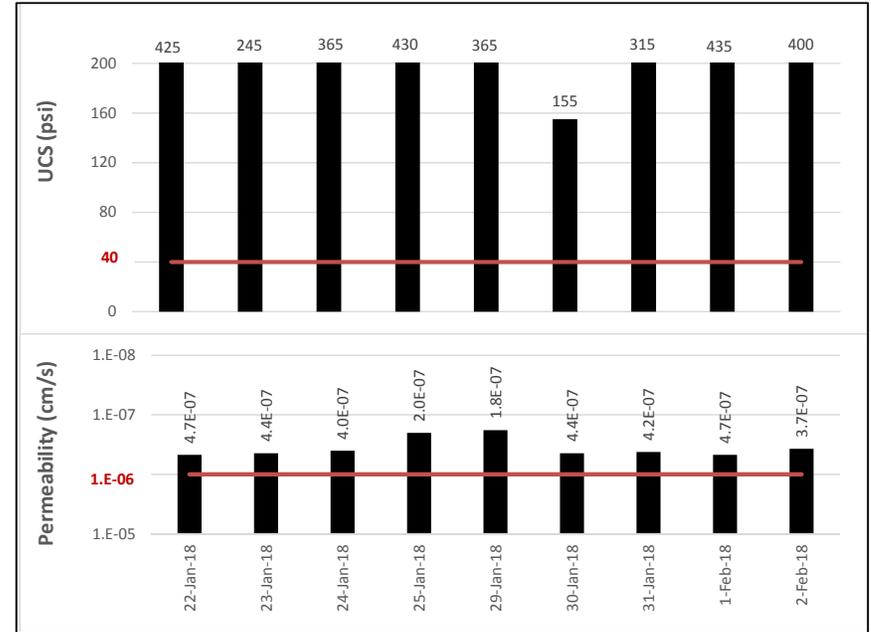
In Situ Solidification/Stabilization Results Dashboard, Area 3A (Leaching Batch 3)

Quanta Resources Corporation Superfund Site, OU1

Data through: 4/2/2018

Area	Date	Volume (CY)	Actual Mix		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
3A	22-Jan-18	452	2%	6%	MEETS	MEETS
3A	23-Jan-18	574	2%	6%	MEETS	MEETS
3A	24-Jan-18	585	2%	6%	MEETS	MEETS
3A	25-Jan-18	603	2%	6%	MEETS	MEETS
3A	29-Jan-18	725	2%	6%	MEETS	MEETS
3A	30-Jan-18	434	2%	6%	MEETS	MEETS
3A	31-Jan-18	585	2%	6%	MEETS	MEETS
3A	1-Feb-18	572	2%	6%	MEETS	MEETS
3A	2-Feb-18	399	2%	6%	MEETS	MEETS

Total CY Mixed: **4929**

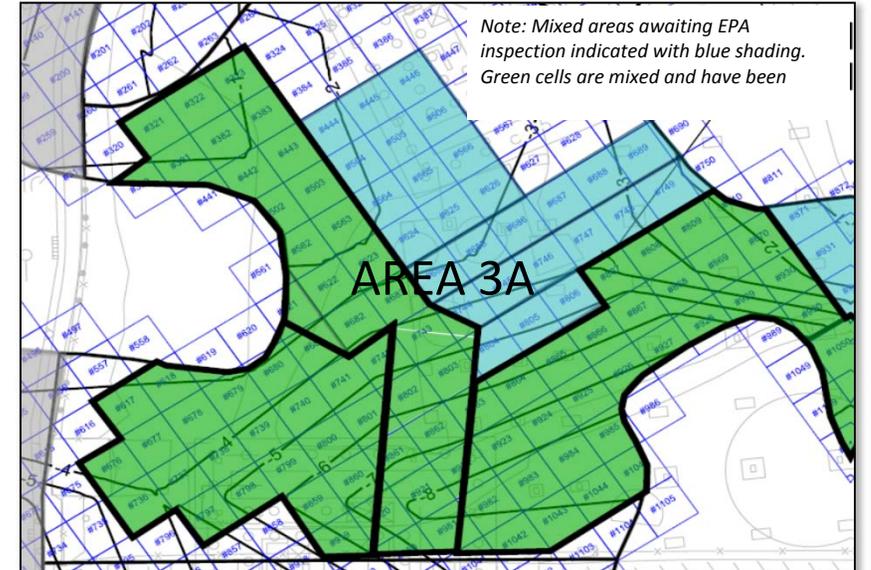


Leaching Reduction by Constituent			
Site Constituent		Site Constituent	
1	Arsenic	12	Benzo(b)fluoranthene
2	Benzene	13	Benzo(g,h,i)perylene
3	Toluene	14	Benzo(k)fluoranthene
4	Ethylbenzene	15	Chrysene
5	Total Xylenes	16	Dibenz(a,h)anthracene
6	Naphthalene	17	Fluoranthene
7	Acenaphthene	18	Fluorene
8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

Analysis in progress

Constituents Passing

Leaching calculations for each constituent provided in Attachment 4 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.



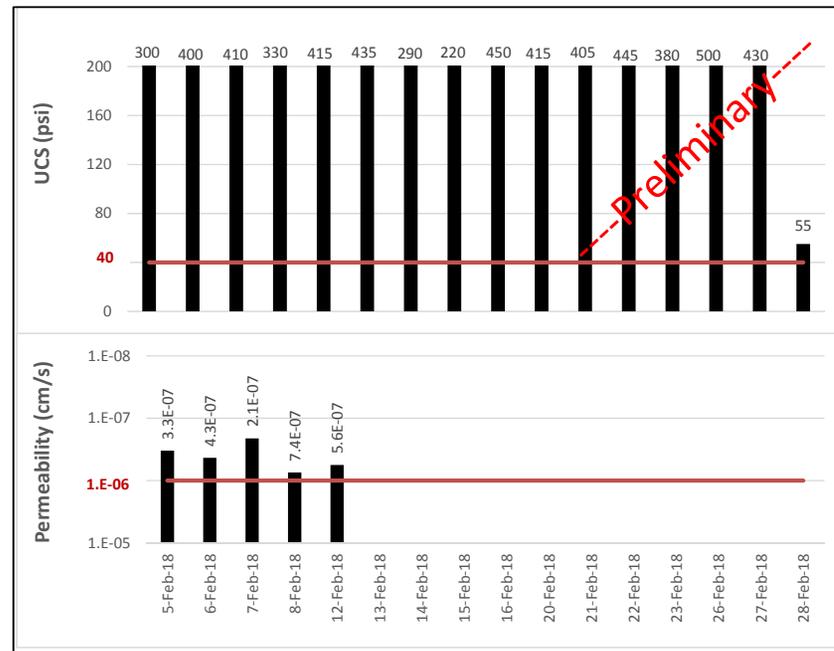
In Situ Solidification/Stabilization Results Dashboard, Area 3A (Leaching Batch 4)

Quanta Resources Corporation Superfund Site, OU1

Data through: 4/2/2018

Area	Date	Volume (CY)	Actual Mix		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
3A	5-Feb-18	527	2%	6%	MEETS	MEETS
3A	6-Feb-18	178	2%	6%	MEETS	MEETS
3A	7-Feb-18	565	2%	6%	MEETS	MEETS
3A	8-Feb-18	443	2%	6%	MEETS	MEETS
3A	12-Feb-18	296	2%	6%	MEETS	MEETS
3A	13-Feb-18	360	2%	6%	MEETS	
3A	14-Feb-18	333	2%	6%	MEETS	
3A	15-Feb-18	569	2%	6%	MEETS	
3A	16-Feb-18	314	2%	6%	MEETS	
3A	20-Feb-18	482	2%	6%	MEETS	
3A	21-Feb-18	133	2%	6%		
3A	22-Feb-18	397	2%	6%		
3A	23-Feb-18	511	2%	6%		
3A	26-Feb-18	532	2%	6%	data pending	
3A	27-Feb-18	773	2%	6%		
3A	28-Feb-18	540	2%	6%		

Total CY Mixed: 6953

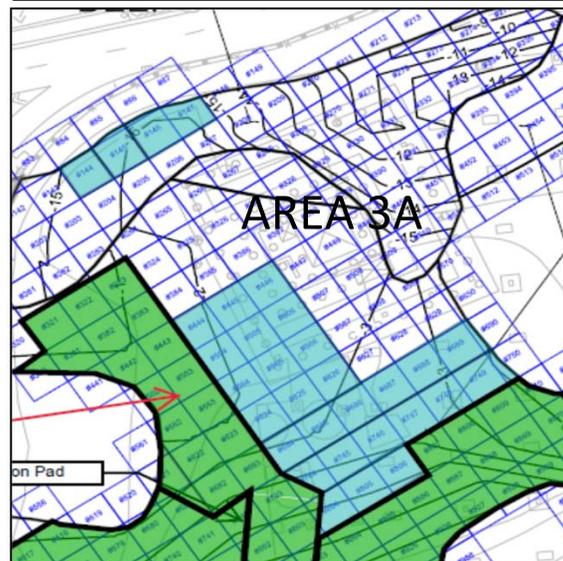


Leaching Reduction by Constituent			
Site Constituent		Site Constituent	
1 Arsenic		12 Benzo(b)fluoranthene	
2 Benzene		13 Benzo(g,h,i)perylene	
3 Toluene		14 Benzo(k)fluoranthene	
4 Ethylbenzene		15 Chrysene	
5 Total Xylenes		16 Benzo(a,h)anthracene	
6 Naphthalene		17 Fluoranthene	
7 Acenaphthene		18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

Sample is Curing

Constituents Passing

Leaching calculations for each constituent provided in Attachment 4 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.



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

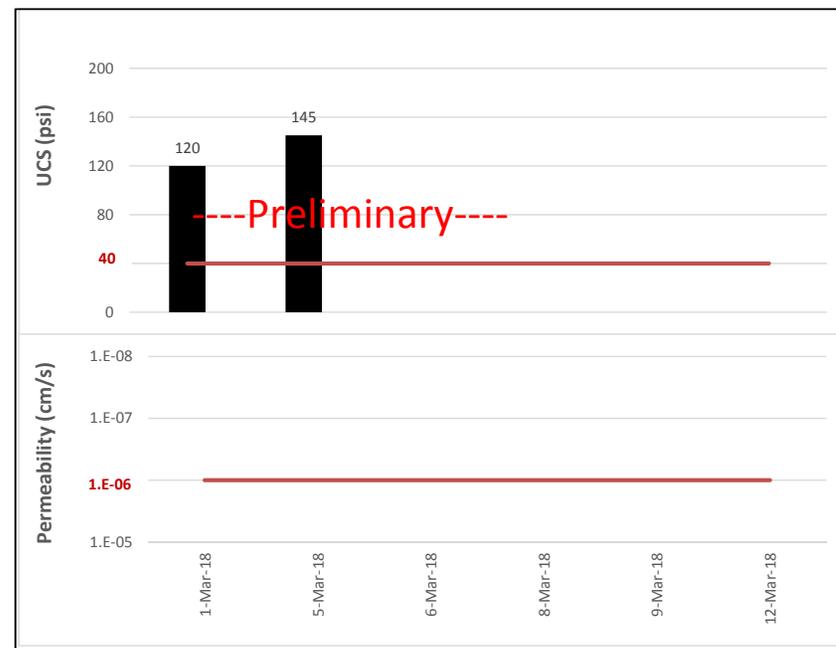
In Situ Solidification/Stabilization Results Dashboard, Area 3C (Leaching Batch 5)

Quanta Resources Corporation Superfund Site, OU1

Data through: 4/2/2018

Area	Date	Volume (CY)	Actual Mix		UCS (≥ 40 psi)	Permeability ($\leq 1E-6$ cm/s)
			Cement	Slag		
3C	1-Mar-18	652	2%	6%	<i>data pending</i>	
3C	5-Mar-18	466	2%	6%		
3C	6-Mar-18	448	2%	6%		
3C	8-Mar-18	325	2%	6%		
3C	9-Mar-18	348	2%	6%		
3C	12-Mar-18	675	2%	6%		

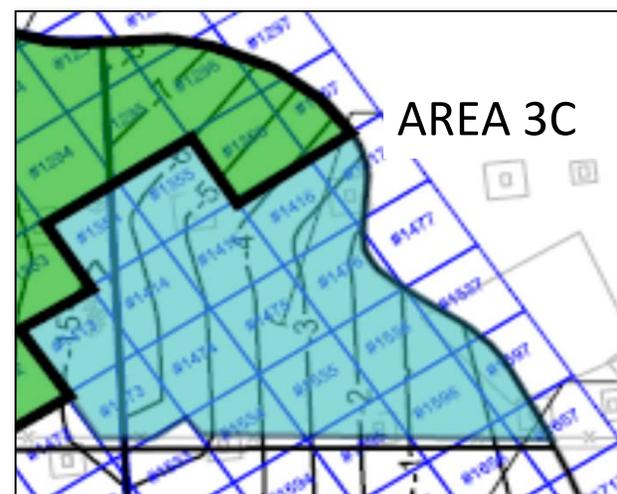
Total CY Mixed: 2914



Leaching Reduction by Constituent			
Site Constituent		Site Constituent	
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 Benzo(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			
Constituents Passing			

Sample is Curing

Leaching calculations for each constituent provided in Attachment 4 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.



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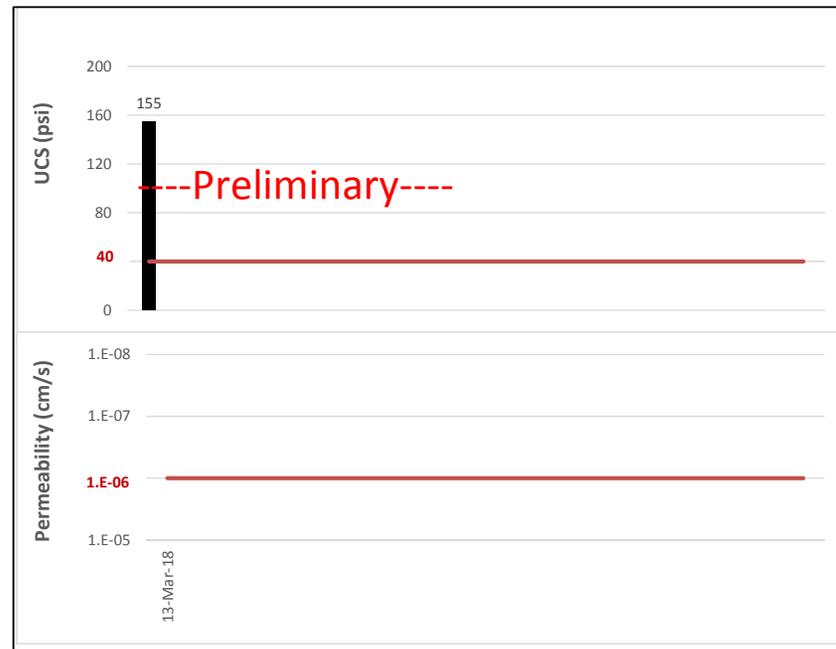
In Situ Solidification/Stabilization Results Dashboard, Area 7B

Quanta Resources Corporation Superfund Site, OU1

Data through: 4/2/2018

Area	Date	Volume (CY)	Actual Mix		UCS (≥40 psi)	Permeability (≤1E-6 cm/s)
			Cement	Slag		
7B	13-Mar-18	283				

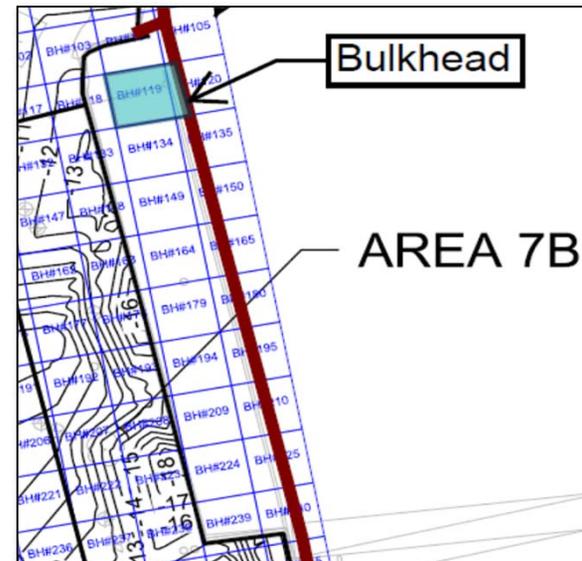
Total CY Mixed: **283**



Leaching Reduction by Constituent			
Site Constituent		Site Constituent	
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 Benzo(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			
Constituents Passing			

Sample is Curing

Leaching calculations for each constituent provided in Attachment 4 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.



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 6)

Quanta Resources Corporation Superfund Site, OU1

Data through: 4/2/2018

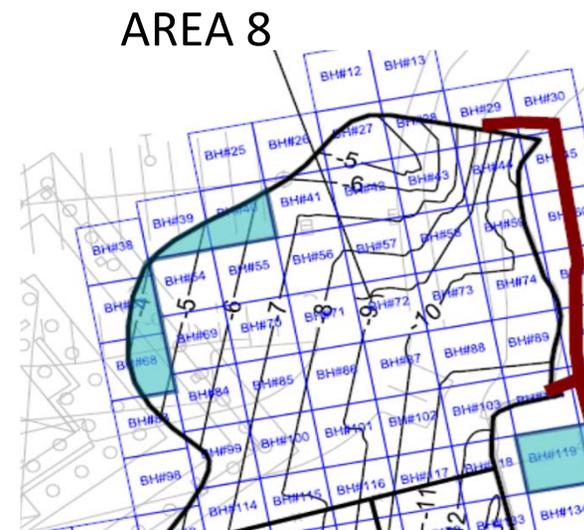
Area	Date	Volume (CY)	Actual Mix		UCS (≥ 40 psi)	Permeability ($\leq 1E-6$ cm/s)
			Cement	Slag		
8	29-Mar-18	145	2%	6%		
8	30-Mar-18	156	2%	6%	data pending	

Total CY Mixed: 301



Leaching Reduction by Constituent			
Site Constituent		Site Constituent	
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 Benzo(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			
Constituents Passing			
<p>Leaching calculations for each constituent provided in Attachment 4 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.</p>			

Sample is Curing



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