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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 5:30:26 PM
To: tricia.kilgore@bjwsa.org
CC: Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: Able Contracting Fire
Attachments: Novacool MSDS.pdf (433.13 KB)

Good Afternoon Tricia:

Thanks for taking the time to speak with me this afternoon about our request to send run-off water from fire mitigation operations at the Able Contracting Fire to the Beaufort-Jasper Water & Sewer Authority. As indicated, one of our main objectives is to reduce the amount of run-off from these operations entering the surrounding environment, as such, having a viable alternative will be highly beneficial.

Attached is the MSDS for a "potential" fire-fighting additive we may use. We have not used this additive as of yet and are unsure if we will implement its use. However, in the interim, please feel free to research the additive to ensure that it will not disrupt your system.

If ya'll can advise what we need to do on our end to be prepared to utilize your facility, I would greatly appreciate it.

In advance thank you, and I look forward to working with you and your team.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject:

Courtney Swanson, MS
Federal On Scene Coordinator
US EPA Region 4, Emergency Response, Removal, and Prevention Branch
(404) 562-8753 (O)
(470) 728-8238 (M)

Subject: Able Contracting Fire Debris Disposal Meeting
Location: EPA Office: Schinger & Via Call In

Start: Monday, August 26, 2019 2:30:00 PM
End: Monday, August 26, 2019 3:30:00 PM

Organizer: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Mandatory participants: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; THenry5@WM.com

Good Morning Everyone:

Tomorrow's Debris Disposal Meeting with Waste Management and our response partners will take place at 10:30 here at the EPA's Office off of Schinger. We will be meeting in the conference room inside of the office complex we have been utilizing (Myra/Henry: for your team it's the same place we have been meeting). Tim, the office is in the same parking lot where you will see the EPA Emergency Response Mobile Command Post located.

For those folks that need to conference call in, the number is: 202-991-0477 Pin: (b)(6) Personal Privacy

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Have a great Sunday.

Chris Russell

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 6:16:02 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: Able Contracting Fire Ops/Logistics Challenge

Gentlemen:

Tampa FD has offered to let us borrow a tote of Novacool and will provide it to us as soon as we can get there. We are looking to fly Courtney down there, renting a U-Haul box truck to get it, and drive it back tomorrow. Courtney will need to work directly with Concur to get the travel arranged. Naturally, this will conflict with his current TA, in turn, we wanted to make sure ya'll were looped in before this occurs.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this issue.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 10:25:17 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Able Fire

Best I can tell, there are only 3 chimneys this morning. The south end will be our primary emphasis today. I suspect tomorrow morning there will be 1 or less chimney and there will be no smoke by Wednesday morning. Just call me Mr Optimistic.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 3:25:45 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; THenry5@WM.com
Subject: Able Fire Debris Disposal Discussion

Good Morning Everyone:

Tomorrow's Debris Disposal Meeting with Waste Management and our response partners will take place at 10:30 here at the EPA's Office off of Schinger. We will be meeting in the conference room inside of the office complex we have been occupying (Myra/Henry: for your team it's the same place we have been meeting). Tim, the office is in the same parking lot where you will see the EPA Emergency Response Mobile Command Post located.

For those folks that need to conference call in, the number is: 202-991-0477 Pin: (b)(6) Personal Privacy

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Have a great Sunday.

Chris Russell

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 6:11:55 PM
To: reecemc@dhec.sc.gov; Henry Porter <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Able Fire Midday Ops
Attachments: IMG_0096.JPG (144.27 KB), ATT00001.txt (6 Bytes), IMG_0097.JPG (140.95 KB), ATT00002.txt (6 Bytes), IMG_0098.JPG (134.43 KB), ATT00003.txt (123 Bytes)

Hello All:

Just a quick midday update: 71 loads have been strategically relocated on site today thus far (700+ tons). 44 loads have been taken off site (approx 450 tons). We have asked the operators to concentrate on packing in the waste to increase tonnage per load. With the reduction in water application our loads are less wet and lighter, hence the emphasis on really packing them in.

Fire mitigation water is still being captured to the extent practical and the water is being taken to a local sanitary sewer system for disposal. Air sparging of the ditch continues as well.

All air Monitoring results have shown no issues thus far.

Still no work stoppage injuries and further good news, as you can tell from the photos below, no smoke plumes. We aren't saying the fire is out, but we are most definitely headed in the right direction. (**please note the concrete pumper NOT flowing water, this is in line with our strategic plan to be as efficient as possible when applying water).

Please do not hesitate to contact me with any questions, etc you may have.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 7:37:07 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Byrd, Terrence <Byrd.Terrence@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Able Fire Ops 8/26/2019

Good Afternoon Everyone,

Please find a summary of today's activities up to 3:00 p.m.

Eighty-two loads of debris were strategically relocated on-site today. This represents approximately 820 tons of debris, as well as a cost savings of approximately $25,000 due to not having to pay tipping fees. Barring any weather or work delays this afternoon, these numbers will increase. It's anticipated that 110-120 loads will be relocated on site by close of business today.

Fifty loads of debris have been shipped off-site to the local Waste Management facility. This represents approximately 500 tons of debris removed from the site today. It's anticipated that approximately 55-60 loads will be shipped off site by close of business today.

Strategies to reduce the amount of fire-mitigation water traveling off-site continue to be implemented. Due to the increased efficiency of water use to mitigate the fire, water utilized on-site continues to decrease. Furthermore, fire-mitigation water generated on site continues to be shipped directly to a sanitary sewage system via vacuum trucks.

Air monitoring data continues to show that no off-site exceedances of action levels relative to chemicals of concern are occuring. Furthermore, particulate monitoring shows levels in the good to moderate range. Continuous air-monitoring of workers operating directly on top of and around the debris pile have shown no exceedances of action levels relative to chemicals of concern.

Minimal smoke was noted at the beginning of the operational period (sunrise). At midday, no smoke was observed on-site. Such observations indicate that EPA fire-mitigation operations are making a positive impact on moving forward with extinguishing the fire.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

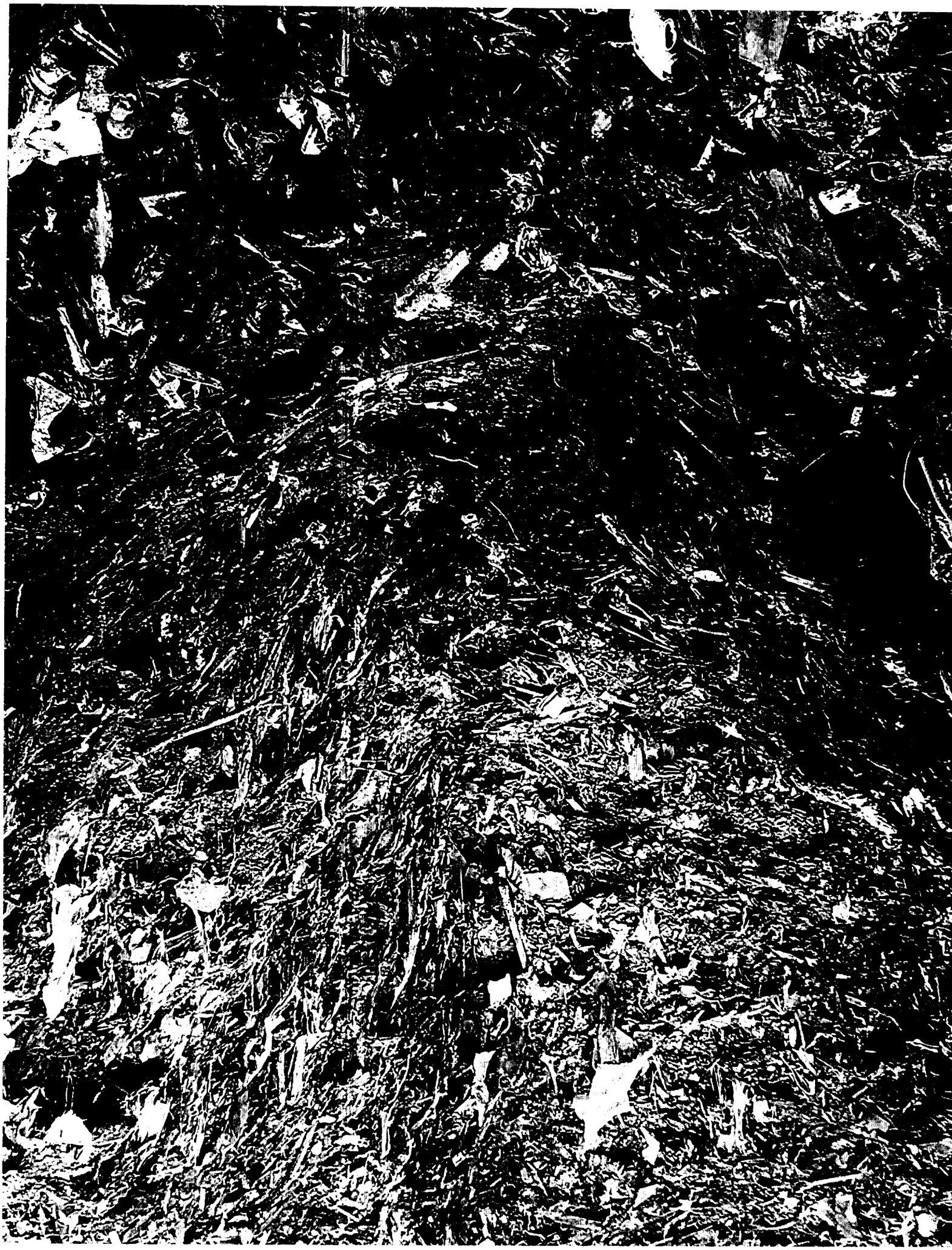
From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 11:43:56 AM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Able Fire

Since we didn't get the fire out while we were there, I'm gonna send ya some rain in a few days... I've got contacts like that◆?◆?

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:35:53 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0089.JPG (1.73 MB), ATT00001.txt (6 Bytes), IMG_0088.JPG (1.41 MB), ATT00002.txt (6 Bytes), IMG_0087.JPG (1.42 MB), ATT00003.txt (6 Bytes), IMG_0085.JPG (3.68 MB), ATT00004.txt (6 Bytes), IMG_0084.JPG (4.64 MB), ATT00005.txt (123 Bytes)



DOOSAN

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:33:33 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0079.JPG (2.04 MB), ATT00001.txt (6 Bytes), IMG_0078.JPG (2.21 MB), ATT00002.txt (6 Bytes), IMG_0077.JPG (1.98 MB), ATT00003.txt (6 Bytes), IMG_0076.JPG (2.04 MB), ATT00004.txt (6 Bytes), IMG_0075.JPG (2.99 MB), ATT00005.txt (123 Bytes)

SK350LC
KOBELCO
United Rentals

MARTIKA CORP #106

KOBELCO
SK 30

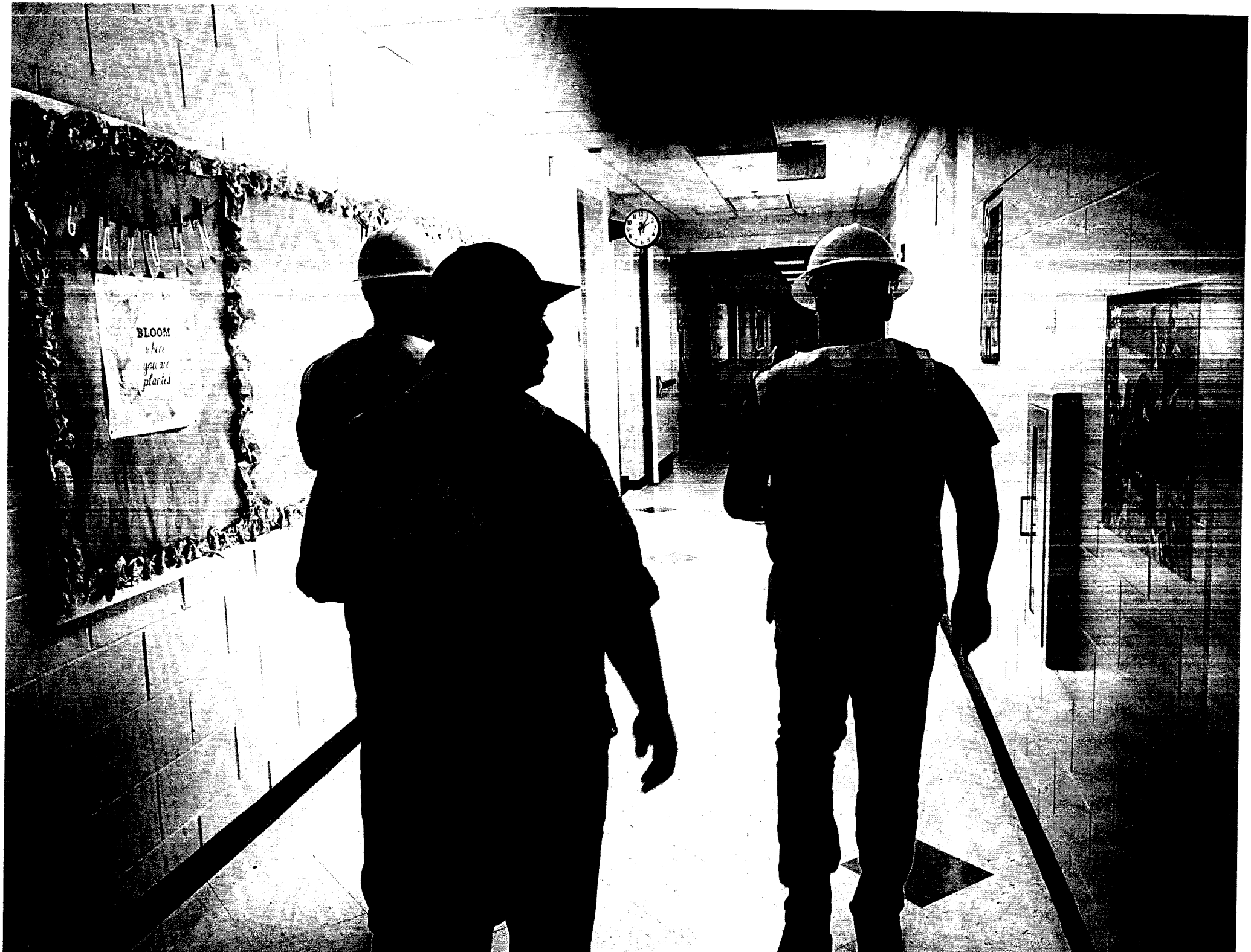
GULF
STRIKE
TEAM

COMBECO

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:31:23 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0069.JPG (2.12 MB), ATT00001.txt (6 Bytes), IMG_0068.JPG (2.1 MB), ATT00002.txt (6 Bytes), IMG_0067.JPG (2.13 MB), ATT00003.txt (6 Bytes), IMG_0066.JPG (1.83 MB), ATT00004.txt (6 Bytes), IMG_0065.JPG (1.86 MB), ATT00005.txt (123 Bytes)

BLOOM
where
you are
planted

DHEC
IMPORTANT!


BLOOM

IMPORTANT!
ROBINS!

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:15:15 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0057.JPG (2.73 MB), ATT00001.txt (6 Bytes), IMG_0056.JPG (2.81 MB), ATT00002.txt (6 Bytes), IMG_0053.JPG (2.64 MB), ATT00003.txt (6 Bytes), IMG_0052.JPG (2.59 MB), ATT00004.txt (6 Bytes), IMG_0051.JPG (2.51 MB), ATT00005.txt (123 Bytes)

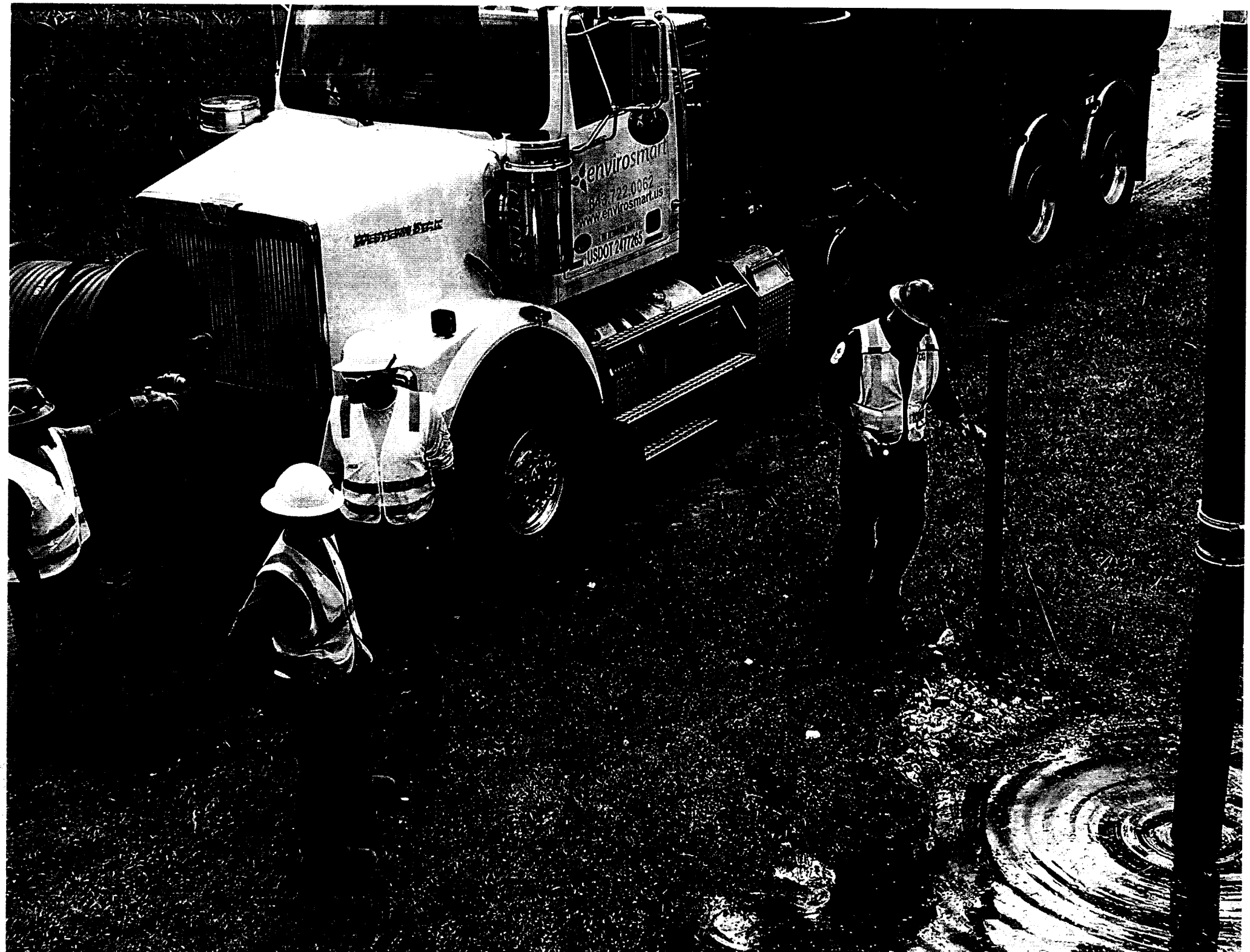
#3
#4
#5
Would Not Print

CAT
KOMATSU
DOOSAN
PC 270 LC
KOBELCO

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:12:53 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0046.JPG (2.68 MB), ATT00001.txt (6 Bytes), IMG_0045.JPG (2.76 MB), ATT00002.txt (6 Bytes), IMG_0044.JPG (2.81 MB), ATT00003.txt (6 Bytes), IMG_0043.JPG (3.44 MB), ATT00004.txt (123 Bytes)

envirosmart
www.envirosmart.us

www.envirosmart.us
USDOT 2477265
USCG


envirosmart
www.envirosmart.us
USDOT 2477265

WESTERN STAR
enviro
843.722.0062
www.envirosmart.us
USDOT 2477265

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:11:05 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0019.JPG (2.15 MB), ATT00001.txt (6 Bytes), IMG_0016.JPG (3.1 MB), ATT00002.txt (6 Bytes), IMG_0015.JPG (2.97 MB), ATT00003.txt (6 Bytes), IMG_0012.JPG (1.69 MB), ATT00004.txt (6 Bytes), IMG_0011.JPG (1.12 MB), ATT00005.txt (123 Bytes)

#3
#4
#5 Not Print

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:03:12 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0101.JPG (3.11 MB), ATT00001.txt (6 Bytes), IMG_0100.JPG (2.83 MB), ATT00002.txt (6 Bytes), IMG_0098.JPG (3.15 MB), ATT00003.txt (6 Bytes), IMG_0097.JPG (3.41 MB), ATT00004.txt (6 Bytes), IMG_0096.JPG (2.78 MB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:25:23 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0025.JPG (1.32 MB), ATT00001.txt (6 Bytes), IMG_0024.JPG (1.46 MB), ATT00002.txt (6 Bytes), IMG_0023.JPG (1.23 MB), ATT00003.txt (6 Bytes), IMG_0021.JPG (2.22 MB), ATT00004.txt (6 Bytes), IMG_0019.JPG (2.15 MB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:40:33 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0084.JPG (4.64 MB), ATT00001.txt (6 Bytes), IMG_0083.JPG (4.46 MB), ATT00002.txt (6 Bytes), IMG_0082.JPG (4.07 MB), ATT00003.txt (6 Bytes), IMG_0081.JPG (3.94 MB), ATT00004.txt (6 Bytes), IMG_0080.JPG (1.58 MB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:40:33 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Pics
Attachments: IMG_0084.JPG (4.64 MB), ATT00001.txt (6 Bytes), IMG_0083.JPG (4.46 MB), ATT00002.txt (6 Bytes), IMG_0082.JPG (4.07 MB), ATT00003.txt (6 Bytes), IMG_0081.JPG (3.94 MB), ATT00004.txt (6 Bytes), IMG_0080.JPG (1.58 MB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:28:07 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0148.PNG (645.39 KB), ATT00001.txt (6 Bytes), IMG_0149.PNG (670.08 KB), ATT00002.txt (6 Bytes), IMG_0150.PNG (648.16 KB), ATT00003.txt (6 Bytes), IMG_0151.PNG (680.79 KB), ATT00004.txt (6 Bytes), IMG_0152.PNG (660.76 KB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:26:50 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0143.PNG (139.44 KB), ATT00001.txt (6 Bytes), IMG_0144.PNG (119.51 KB), ATT00002.txt (6 Bytes), IMG_0145.PNG (171.18 KB), ATT00003.txt (6 Bytes), IMG_0146.PNG (486.11 KB), ATT00004.txt (6 Bytes), IMG_0147.PNG (292.78 KB), ATT00005.txt (123 Bytes)

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:26:32 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0139.PNG (469.91 KB), ATT00001.txt (6 Bytes), IMG_0140.PNG (233.78 KB), ATT00002.txt (6 Bytes), IMG_0141.PNG (265.04 KB), ATT00003.txt (6 Bytes), IMG_0142.PNG (135.1 KB), ATT00004.txt (6 Bytes), IMG_0143.PNG (139.44 KB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:26:09 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0136.PNG (141.53 KB), ATT00001.txt (6 Bytes), IMG_0137.PNG (444.02 KB), ATT00002.txt (6 Bytes), IMG_0138.PNG (643.15 KB), ATT00003.txt (6 Bytes), IMG_0139.PNG (469.91 KB), ATT00004.txt (6 Bytes), IMG_0140.PNG (233.78 KB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:28:48 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0153.PNG (651.3 KB), ATT00001.txt (6 Bytes), IMG_0155.PNG (255 KB), ATT00002.txt (6 Bytes), IMG_0156.PNG (125.31 KB), ATT00003.txt (6 Bytes), IMG_0157.PNG (120.04 KB), ATT00004.txt (6 Bytes), IMG_0152.PNG (660.76 KB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:25:36 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Texts
Attachments: IMG_0132.PNG (123.55 KB), ATT00001.txt (6 Bytes), IMG_0133.PNG (141.9 KB), ATT00002.txt (6 Bytes), IMG_0134.PNG (125.66 KB), ATT00003.txt (6 Bytes), IMG_0135.PNG (130.53 KB), ATT00004.txt (6 Bytes), IMG_0136.PNG (141.53 KB), ATT00005.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:09:04 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0022.MOV (1.4 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:08:49 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0018.MOV (1.35 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:15:40 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able Video
Attachments: IMG_0013.MOV (2.8 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:13:14 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0099.MOV (2.01 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:11:42 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0054.MOV (2.44 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:11:23 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0055.MOV (1.31 MB), ATT00001.txt (123 Bytes)

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:34:08 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Able video
Attachments: IMG_0092.MOV (4.36 MB), ATT00001.txt (123 Bytes)

Subject: Accepted: Able Contracting Fire Daily Conference Call
Location:

Start: Sunday, August 18, 2019 1:00:00 PM
End: Sunday, August 18, 2019 2:00:00 PM

Recurrence patern: (None)
Organizer: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Mandatory participants: Franco, Benjamin <Franco.Benjamin@epa.gov>

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 20, 2019 12:51:24 AM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Access

Hey Matt:

As discussed earlier today, we are in a position where we have made so much progress that we need to be thinking about having unrestricted access to the property, especially on the Able Contracting Office/Shop side. I don't know where we are on such access, but if we could get that knocked out soon that would be awesome.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

From: Tanner, Terry <Tanner.Terry@epa.gov> on behalf of Tanner, Terry
Sent on: Thursday, August 22, 2019 1:22:53 AM
To: Undisclosed recipients:;
Subject: Air summary report 19:00 hours 08/20/2019 to 07:00 hours 08/21/2019
Attachments: Able_Viper Summary Report_082019NIGHT (002).pdf (986.83 KB)

Particulate readings at the EPA MCP, Brook Mill Apartments, Sun City, Grace Coastal Church and Short Cut Road reported good air quality with average reading of 7.4 ug/m3 and were well within the 0-12 ug/m3 range for the "Good" AQI category. Particulates at Peacock Collision reported moderate air quality at an average of 12.2 ug/m3 and a peak of over 118 ug/m3 which occurred as part of a sharp increase of PM2.5 beginning at approximately 2AM. Increases in PM2.5 of similar slopes were also observed at this time at Short Cut Road.

One AreaRae within the fence line (northwest corner of waste pile) had a temporary exceedance of H2S above the action level of 0.5ppm but the period average of 0.01ppm at this station was below the action level. No detections were reported outside the Site fence line at Forrest Concrete of HCN, VOC, H2S, CO or LEL.

Terry L. Tanner
On-Scene Coordinator
US Environmental Protection Agency
61 Forsyth Street, 11th Floor
Atlanta, GA 30303
404.562.8797 (Office)
404.434.5379 (Cell)
tanner.terry@epa.gov

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 2:03:04 PM
To: Franco, Benjamin <Franco.Benjamin@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Can Ya'll Help A Brother Out
Attachments: Novacool MSDS.pdf (433.13 KB)

Gents: Can ya'll check with the powers to be to ensure we can utilize this product on this response, i.e. are there any dispersant issues, etc?

On my side, I'm running it by DHEC to get their buy-in as well. In turn, if ya'll will ensure we are good on our side, we'll make sure DHEC is looped in and on-board as well.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject:

Courtney Swanson, MS
Federal On Scene Coordinator
US EPA Region 4, Emergency Response, Removal, and Prevention Branch
(404) 562-8753 (O)
(470) 728-8238 (M)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 12:00:00 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Coffee 2
Attachments: IMG_0014.MOV (1.66 MB), ATT00001.txt (123 Bytes)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 9:45:07 PM
To: Moore, Tony <moore.tony@epa.gov>
Subject: Couple of things

Hey Tony:

Can you go in and approve the voucher for my KLP Academy last week and the TA for the Able Contracting Fire. Also, I had to amend my PPlus for last week due to responding to the Able Fire on Friday, in turn, if you could go in and approve that amended TA I'd greatly appreciate it.

In advance, thanks.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

Share Copy link Download Delete Copy to Version history Previous 37 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:08:08 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Debris Disposal FW: Price offer Able from WM
Attachments: Able Price offer 8-26-19.docx (12.09 KB)

Good Afternoon Everyone:

First of all, thank you to everyone who had a hand in pulling together today's meeting between EPA, SCDHEC, and Waste Management. As expressed in today's meeting, Waste Management has been a solid partner in helping EPA during our fire-mitigation operations, specifically by extending their landfill hours, opening up on days they are normally closed, and providing competitive tipping rates. Attached, you will find a pricing proposal provided by Waste Management. The first price break applicable to EPA's operations occurs after 30,000 tons of debris being shipped to their facility. That volume equates to roughly ten times the amount of debris we have shipped off-site thus far.

To date, EPA has addressed approximately 7,000 tons of debris in response to the Able Contracting Fire. Approximately 3,500 tons have been strategically relocated on-site and approximately 3,800 tons have been disposed of off-site. Given the amount of working space we now have, the amount of area we have to work with in the "gap", and the tremendous progress we have made in actually mitigating the fire, it's hard to fathom a situation in which we will need to dispose of 30,000 tons off-site. To be quite honest, I can't project a scenario whereby EPA will need to address more than 15,000 tons and I sincerely believe that would be a stretch.

In a nutshell, the pricing proposal will not alter EPA's approach to addressing debris at the Able Contracting fire via the strategic relocating of debris on-site, coupled with off-site disposal operations.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Henry, Timothy <thenry5@wm.com>
Sent: Monday, August 26, 2019 4:31 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>; Muckenfuss, Mark <MMuckenfuss@wm.com>
Subject: RE: Price offer Able from WM

Armstrong, Kathy

From: Russell, Chris
Sent: Monday, August 26, 2019 5:08 PM
To: reecemc@dhec.sc.gov; Porter, Henry; Tanner, Terry
Cc: Spurlin, Steve; Swanson, Courtney; Byrd, Terrence
Subject: Debris Disposal FW: Price offer Able from WM
Attachments: Able Price offer 8-26-19.docx

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Subject: RE: Price offer Able from WM

Chris,

I hate to do this, but there was an error in the letter I sent you. I'll blame it on the haste in meeting your schedule.... All my fault. The take-or-pay option is $28/ton, not $27/ton. My apologies. I didn't have time to explain earlier, but you

should know that when we were first approached about pricing for this waste by EnviroSmart and Ensafe, we priced it at $32/ton. When CMC and USEPA took over, we dropped the price to $30/ton after meeting with Rick Hollingsworth. So our $28/ton offer is really a reduction of $4/ton over our original offer.

Again, sorry for the confusion. Attached is the letter that should replace the original.

Tim Henry
Sr. Industrial Account Manager
South Carolina
843 409-5472
Thenry5@wm.com

WASTE MANAGEMENT
THINK GREEN.

From: Russell, Chris <Russell.Chris@epa.gov>
Sent: Monday, August 26, 2019 3:58 PM
To: Muckenfuss, Mark <MMuckenfuss@wm.com>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: RE: Price offer Able from WM

Thanks Mark and WM Team for turning this around so quickly. We will talk with our State partners, upper management, etc and see if there is a path forward they would like to take.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Muckenfuss, Mark <MMuckenfuss@wm.com>
Sent: Monday, August 26, 2019 2:21 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: Price offer Able from WM

Chris,

Excuse the letter in its informal state, but I can formalize it later.

Recycling is a good thing. Please recycle any printed emails.

Waste Management Proposal for Cost Savings from Able Contracting

August 26, 2019

Revised 4:30 PM

To whom it may concern:

Per your request, Waste Management has reviewed our cost and are able to offer some assistance in disposal costs at our Oakwood landfill. We are offering two options as described below.

Assumptions: (b)(4) tons remaining

Open extended hours on weekend

Current cost for (b)(4) s $1,800,000 (b)(4) CBI

Option 1 – Take-or-Pay

We will offer a price of (b)(4) with a guaranteed (b)(4) CBI. Total cost is $1,680,000. If you ship > (b)(4) CBI your cost will remain at (b)(4) If you ship < (b)(4) CBI you will owe the difference.

Option 2 – Sliding scale price

We will decrease our price every (b)(4) CBI received by (b)(4) CBI

(b)(4) CBI (b)(4)

(b)(4) CBI b)(4) CBI

Your total cost if you ship (b)(4) tons is (b)(4) CBI

Please let me know if you have any questions.

Tim Henry

Waste Management

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 6:55:57 PM
To: reecemc@dhec.sc.gov; Tanner, Terry <Tanner.Terry@epa.gov>; Henry Porter <porterhj@dhec.sc.gov>
Subject: Drone photos at the beginning of the day.
Attachments: IMG_0015.JPG (151.81 KB), ATT00001.txt (6 Bytes), IMG_0016.JPG (149.27 KB), ATT00002.txt (123 Bytes)

Share Copy link Download Delete Copy to Version history Previous 39 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 8:00:21 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: EPA Ops 8/25/2019 Able Contracting Fire

Good Afternoon All:

Here's a brief summary of EPA's actions today. I have copied Steve Spurlin and Terrence Byrd, a couple of OSC's that will be coming on board this week to start working this project as some of us swap out.

As of 3 p.m. today:

85 truckloads (approx. 700 tons) of debris were strategically relocated on site at the Able Contracting Fire today. This resulted in a net savings of approximately $21,000 in disposal costs.
56 truckloads (approx.. 450 tons) of debris were taken to the Waste Management disposal facility.
it should be noted that the loads of debris have been somewhat lighter (tonnage per truckload) yesterday and today, it is believed that this is due to the strategic operational changes implemented to improve water efficiency

At the request of the Beaufort County Superintendent of Schools, EPA along with their contractors, the U.S. Coast Guard, and SCDHEC conducted air monitoring operations inside and outside of the Okatie Elementary School during today's operations. There were no detections of any chemicals of concern. Utilizing three different agencies provided for a duplicative and redundant
approach to the air monitoring activities, thus elevating the degree of confidence in the findings. A similar approach was implemented last Sunday evening before students returned from summer break the following day.

EPA continues to collect and dispose of fire-mitigation water being generated on-site via on-site damming implements and the utilization of a vacuum truck.

EPA conducted a beta-test on the use of foam on site, the results were mixed. In turn, it was decided that foam additives would only be utilized when strategically beneficial.

The landscape of the debris pile continues to change daily as more progress is made. It's envisioned that given the increasing working space being developed daily, future operations consisting of on-site relocation activities will be further increased.

EPA continues to conduct air monitoring activities around the clock.

Once again, no work loss accidents occurred on-site.

Respectfully,

Share Copy link Download Delete Copy to Version history Previous 40 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 7:26:09 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: EPA Ops Able Fire 8/24/2019

Hello All:

As of 3 p.m. 51 loads of debris have been removed from the site and taken to the WM landfill today, this equates to approximately 510 tons. 6 loads of debris were relocated on-site today (approximately 60 tons). On-site relocation procedures were halted today while we utilized the concrete pumper to perform a fire-mitigation water efficiency beta test. It's anticipated that the last 2 hours of the day will involve additional strategic placement of loads of debris on site.

Concrete pumper beta test: By all accounts, the first day of beta testing utilizing the concrete pumper was a success in helping to mitigate the fire, while simultaneously increasing the efficiency of water placement to do so. Due to the vertical, as well as horizontal reach, afforded to the team, we were able to strategically place more water directly on the areas of concern. As such, the efficiency of the water placement/usage has increased.

The planned fire-fighting additive beta test did not come to fruition today. We were successful in obtaining a tote of the additive from the Tampa Fire Department (they loaned us a tote and we will pay the vendor to replace it for them), which was delivered this morning, however, it was decided to concentrate on the concrete pumper procedures today.

As indicated earlier, the team created a dam in the ditch along Schinger Avenue today. The fire-mitigation water collected in the ditch is being actively transported to a manhole and ultimately sent to the Buford Jasper Water/Sewer Authority for treatment. BJWSA partnered with the team, allowing the use of the nearby manhole conduit as a means to ensure we could process as many loads as possible without the challenges of plant operating hours. Prior to the dam's construction this afternoon, the team pumped directly from the ditch at the SW corner of the Site (Schinger and property line) today. On-site operations have revealed that we have a greater success of recovering off-site migrating water by pulling directly from the ditch and disposing of it verses pumping from the ditch, sending it to the Frac tanks on site, allowing the water to settle, and then working to feed it back into the fire-mitigation operations. The overall costs of the operation may increase due to the disposal of the water verses reuse, however, the benefits of further increasing our reduction in water migrating off-site outweigh those costs.

The greatest success story today: once again, we are accident free on site.

I will be sending ya'll another email shortly in regards to the meeting with WM this coming Monday.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator

From: Russell, Chris <Russell.Chris@epa.gov>
Sent on: Tuesday, August 20, 2019 3:23:25 PM
To: Prys, Paul <Paul.Prys@tetratech.com>; chris.jones@tetratech.com; Swanson, Courtney <Swanson.Courtney@epa.gov>
CC: Huyser, Matthew <Huyser.Matthew@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: Field Operations: Air Sampling

Good Morning Chris and Paul:

We would like to conduct air sampling within two of the cabs of the equipment being used on the fire mitigation operations. We should run analysis similar to what was previously run when Jordan was here. Can ya'll get that started with the goal of having that sampling done tomorrow or Thursday (sampling plan, lab set up, etc)?

Courtney will be the lead on this, so please coordinate with him.

Thanks ya'll.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

Share Copy link Download Delete Copy to Version history Previous 41 of 61

From: Russell, Chris <Russell.Chris@epa.gov>
Sent on: Tuesday, August 20, 2019 3:23:25 PM
To: Prys, Paul <Paul.Prys@tetratech.com>; chris.jones@tetratech.com; Swanson, Courtney <Swanson.Courtney@epa.gov>
CC: Huyser, Matthew <Huyser.Matthew@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
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US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 9:11:15 PM
To: (b)(6) Personal Privacy
Subject: Firefighting Additive

Hey Mike, great talking to you earlier. As discussed, EPA is working on a debris fire up in Ridgeland, South Carolina and we are looking at utilizing Novacool as an additive to help mitigate the fire. In turn, I was wondering if you and/or any of your colleagues had any experience utilizing this product and if so, if ya'll had any comments, etc about its utilization. If the experiences have been positive, we are looking to try and find some nearby that we could use (i.e. see about borrowing some from a F.D. and then backfilling what we borrowed). Any assistance you can provide will be greatly appreciated.

In advance, thanks brotha.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

Share Copy link Download Delete Copy to Version history Previous 43 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 4:49:59 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: FW: FW: Debris Disposal FW: Price offer Able from WM
Attachments: image002.jpg (1.47 KB), image004.png (2.27 KB)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Henry, Timothy <thenry5@wm.com>
Sent: Tuesday, August 27, 2019 12:37 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: FW: Debris Disposal FW: Price offer Able from WM

Thank you. I understand. You have been a tremendous help.

Tim Henry
Sr. Industrial Account Manager
South Carolina
Waste Management
843 409-5472

On Aug 27, 2019, at 10:16 AM, Russell, Chris <Russell.Chris@epa.gov> wrote:

> Good Morning Tim:
>
> I wanted to loop you in on this email for situational awareness.
>
> Once again, thanks for taking the time/effort to meet with us and providing options in regards to disposal.
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> Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email, etc.
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> Federal On Scene Coordinator
> US EPA Region 4: Florida Outpost
> Cell: (850) 274-1575

Armstrong, Kathy

From: Russell, Chris
Sent: Tuesday, August 27, 2019 12:50 PM
To: Tanner, Terry; Swanson, Courtney; Spurlin, Steve
Subject: FW: FW: Debris Disposal FW: Price offer Able from WM

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> US EPA Region 4: Florida Outpost
> Cell: (850) 274-1575
>
> **From:** Russell, Chris
> **Sent:** Monday, August 26, 2019 5:08 PM

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Cc: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
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Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>; Muckenfuss, Mark <MMuckenfuss@wm.com>
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Tim Henry
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South Carolina
843 409-5472
Thenry5@wm.com

<image002.jpg>
<image004.png>

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To: Muckenfuss, Mark <MMuckenfuss@wm.com>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: RE: Price offer Able from WM

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US EPA Region 4: Florida Outpost
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Sent: Monday, August 26, 2019 2:21 PM
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Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: Price offer Able from WM

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Recycling is a good thing. Please recycle any printed emails.

<Able Price offer 8-26-19.docx>

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 20, 2019 3:08:15 PM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Subash Patel <Patel.Subash@epa.gov>
Subject: FW: 610536SC 08.19.19 CSR and Tonnage Report
Attachments: 610536SC 08.19.19 CSR.xlsx (14.4 KB), 610536SC 08.19.19 Tonnage Report.xlsx (13.4 KB)

Those docs are awesome Rick, thanks for sending them over. We will also need the transportation related costs to provide up the chain. As indicated earlier, having this provided daily will help keep us ahead of those seeking the information. If ya'll can get them to us in the evening after we wrap up that day's ops, we can use it for our 0900 call with them.

Please copy Terry, Courtney, and Subash on this information as well, as they are directly looped into the same directives from above.

In advance, thank you sir.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent: Tuesday, August 20, 2019 10:16 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: 610536SC 08.19.19 CSR and Tonnage Report

Sent from my iPhone

Begin forwarded message:

From: "Thomas, Teresa" <tthoma32@wm.com>
Date: August 19, 2019 at 5:08:43 PM EDT
To: Rick Hollingsworth <cmcrickh@aol.com>
Cc: "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>
Subject: 610536SC 08.19.19 CSR and Tonnage Report

Good Afternoon Rick,

Please find attached the 610536SC Customer Summary Report and Tonnage Report for 08.19.19. The first four loads did not have the manifest number entered, but the

Armstrong, Kathy

From: Russell, Chris
Sent: Tuesday, August 20, 2019 11:08 AM
To: Rick Hollingsworth
Cc: Tanner, Terry; Swanson, Courtney; Subash Patel
Subject: FW: 610536SC 08.19.19 CSR and Tonnage Report
Attachments: 610536SC 08.19.19 CSR.xlsx; 610536SC 08.19.19 Tonnage Report.xlsx

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> Good Afternoon Rick,
>
> Please find attached the 610536SC Customer Summary Report and Tonnage Report for 08.19.19. The first four loads did not have the manifest number entered, but the following loads did.

If you have any questions or I may be of further assistance, let me know. Have a nice evening.

Thank you for the opportunity to work with you and for your business with Waste Management.

Terri
Teresa "Terri" Thomas
Industrial Technical Service Representative
Emelle Technical Service Center
tthoma32@wm.com

Waste Management
Emelle TSC
Post Office Box 55
36964 Alabama Highway 17 North
Emelle, Alabama 35459
205.652.8164 - Office
866.448.8871- Fax

Recycling is a good thing. Please recycle any printed emails.

Customer Summary Report
Criteria: 08/19/2019 12:00 AM to 08/19/2019 11:59 PM
Business Unit Name: Oakwood Landfill - S03056 (USA)
Profile: 610536SC

Ticket Date	Ticket ID	Customer	Generator	Manifest	Profile	Truck	Material	Rate	Tons	Material Revenue	Total
8/19/2019	224723	CMC INC	126-USEPAREGION-472	- Able Fire site	610536SC	16	DEBRIS	$30.00	10.17	$305.10	$305.10
8/19/2019	224724	CMC INC	126-USEPAREGION-472	USEPA Able fire site	610536SC	599	DEBRIS	$30.00	11.25	$337.50	$337.50
8/19/2019	224728	CMC INC	126-USEPAREGION-472	USEPA- able fire site	610536SC	507	DEBRIS	$30.00	11.76	$352.80	$352.80
8/19/2019	224729	CMC INC	126-USEPAREGION-472	usEPA- ABLE FIRE SITE	610536SC	506	DEBRIS	$30.00	8.75	$262.50	$262.50
8/19/2019	224730	CMC INC	126-USEPAREGION-472	005	610536SC	505	DEBRIS	$30.00	13.08	$392.40	$392.40
8/19/2019	224737	CMC INC	126-USEPAREGION-472	007	610536SC	8	DEBRIS	$30.00	8.95	$268.50	$268.50
8/19/2019	224738	CMC INC	126-USEPAREGION-472	006	610536SC	595	DEBRIS	$30.00	10.57	$317.10	$317.10
8/19/2019	224739	CMC INC	126-USEPAREGION-472	008	610536SC	596	DEBRIS	$30.00	11.36	$340.80	$340.80
8/19/2019	224740	CMC INC	126-USEPAREGION-472	009	610536SC	593	DEBRIS	$30.00	10.17	$305.10	$305.10
8/19/2019	224741	CMC INC	126-USEPAREGION-472	010	610536SC	553	DEBRIS	$30.00	10.83	$324.90	$324.90
8/19/2019	224743	CMC INC	126-USEPAREGION-472	011	610536SC	16	DEBRIS	$30.00	9.5	$285.00	$285.00
8/19/2019	224744	CMC INC	126-USEPAREGION-472	012	610536SC	599	DEBRIS	$30.00	8.78	$263.40	$263.40
8/19/2019	224746	CMC INC	126-USEPAREGION-472	013	610536SC	507	DEBRIS	$30.00	11	$330.00	$330.00
8/19/2019	224747	CMC INC	126-USEPAREGION-472	014	610536SC	506	DEBRIS	$30.00	12.37	$371.10	$371.10
8/19/2019	224751	CMC INC	126-USEPAREGION-472	015	610536SC	505	DEBRIS	$30.00	10.54	$316.20	$316.20
8/19/2019	224754	CMC INC	126-USEPAREGION-472	016	610536SC	16	DEBRIS	$30.00	10.24	$307.20	$307.20
8/19/2019	224755	CMC INC	126-USEPAREGION-472	018	610536SC	599	DEBRIS	$30.00	8.88	$266.40	$266.40
8/19/2019	224756	CMC INC	126-USEPAREGION-472	017	610536SC	8	DEBRIS	$30.00	9.43	$282.90	$282.90
8/19/2019	224757	CMC INC	126-USEPAREGION-472	019	610536SC	593	DEBRIS	$30.00	9.96	$298.80	$298.80
8/19/2019	224760	CMC INC	126-USEPAREGION-472	020	610536SC	507	DEBRIS	$30.00	12.56	$376.80	$376.80
8/19/2019	224761	CMC INC	126-USEPAREGION-472	021	610536SC	595	DEBRIS	$30.00	9.97	$299.10	$299.10
8/19/2019	224763	CMC INC	126-USEPAREGION-472	022	610536SC	596	DEBRIS	$30.00	11.35	$340.50	$340.50
8/19/2019	224764	CMC INC	126-USEPAREGION-472	023	610536SC	553	DEBRIS	$30.00	8.97	$269.10	$269.10
8/19/2019	224766	CMC INC	126-USEPAREGION-472	024	610536SC	506	DEBRIS	$30.00	9.99	$299.70	$299.70
8/19/2019	224767	CMC INC	126-USEPAREGION-472	025	610536SC	505	DEBRIS	$30.00	12.7	$381.00	$381.00
8/19/2019	224768	CMC INC	126-USEPAREGION-472	026	610536SC	16	DEBRIS	$30.00	10.59	$317.70	$317.70
8/19/2019	224770	CMC INC	126-USEPAREGION-472	027	610536SC	599	DEBRIS	$30.00	10.92	$327.60	$327.60
8/19/2019	224774	CMC INC	126-USEPAREGION-472	028	610536SC	8	DEBRIS	$30.00	11.31	$339.30	$339.30
8/19/2019	224775	CMC INC	126-USEPAREGION-472	029	610536SC	507	DEBRIS	$30.00	11.58	$347.40	$347.40
8/19/2019	224776	CMC INC	126-USEPAREGION-472	030	610536SC	593	DEBRIS	$30.00	11.96	$358.80	$358.80
8/19/2019	224777	CMC INC	126-USEPAREGION-472	031	610536SC	595	DEBRIS	$30.00	9.68	$290.40	$290.40
8/19/2019	224778	CMC INC	126-USEPAREGION-472	032	610536SC	506	DEBRIS	$30.00	10.03	$300.90	$300.90
8/19/2019	224779	CMC INC	126-USEPAREGION-472	033	610536SC	596	DEBRIS	$30.00	11.17	$335.10	$335.10
8/19/2019	224780	CMC INC	126-USEPAREGION-472	034	610536SC	553	DEBRIS	$30.00	8.92	$267.60	$267.60
8/19/2019	224781	CMC INC	126-USEPAREGION-472	035	610536SC	505	DEBRIS	$30.00	12.47	$374.10	$374.10
8/19/2019	224782	CMC INC	126-USEPAREGION-472	036	610536SC	16	DEBRIS	$30.00	9.56	$286.80	$286.80
8/19/2019	224786	CMC INC	126-USEPAREGION-472	037	610536SC	599	DEBRIS	$30.00	10.11	$303.30	$303.30
8/19/2019	224790	CMC INC	126-USEPAREGION-472	039	610536SC	507	DEBRIS	$30.00	11.15	$334.50	$334.50
8/19/2019	224792	CMC INC	126-USEPAREGION-472	040	610536SC	595	DEBRIS	$30.00	10.4	$312.00	$312.00
8/19/2019	224793	CMC INC	126-USEPAREGION-472	042	610536SC	593	DEBRIS	$30.00	12.18	$365.40	$365.40
8/19/2019	224794	CMC INC	126-USEPAREGION-472	038	610536SC	8	DEBRIS	$30.00	11.31	$339.30	$339.30
8/19/2019	224797	CMC INC	126-USEPAREGION-472	043	610536SC	596	DEBRIS	$30.00	11.94	$358.20	$358.20
8/19/2019	224800	CMC INC	126-USEPAREGION-472	044	610536SC	553	DEBRIS	$30.00	10.9	$327.00	$327.00
8/19/2019	224801	CMC INC	126-USEPAREGION-472	046	610536SC	16	DEBRIS	$30.00	12.14	$364.20	$364.20
8/19/2019	224802	CMC INC	126-USEPAREGION-472	045	610536SC	505	DEBRIS	$30.00	10.69	$320.70	$320.70
8/19/2019	224805	CMC INC	126-USEPAREGION-472	047	610536SC	599	DEBRIS	$30.00	11.8	$354.00	$354.00
8/19/2019	224809	CMC INC	126-USEPAREGION-472	041	610536SC	507	DEBRIS	$30.00	12.34	$370.20	$370.20
8/19/2019	224810	CMC INC	126-USEPAREGION-472	048	610536SC	595	DEBRIS	$30.00	10.35	$310.50	$310.50
8/19/2019	224813	CMC INC	126-USEPAREGION-472	049	610536SC	593	DEBRIS	$30.00	8.99	$269.70	$269.70
8/19/2019	224814	CMC INC	126-USEPAREGION-472	050	610536SC	8	DEBRIS	$30.00	10.3	$309.00	$309.00
8/19/2019	224817	CMC INC	126-USEPAREGION-472	051	610536SC	596	DEBRIS	$30.00	9.15	$274.50	$274.50
8/19/2019	224818	CMC INC	126-USEPAREGION-472	052	610536SC	553	DEBRIS	$30.00	9.97	$299.10	$299.10
8/19/2019	224819	CMC INC	126-USEPAREGION-472	53	610536SC	16	DEBRIS	$30.00	10	$300.00	$300.00
8/19/2019	224820	CMC INC	126-USEPAREGION-472	52	610536SC	505	DEBRIS	$30.00	10.69	$320.70	$320.70

8/19/2019	224822	CMC INC	126-USEPAREGION-472	55	610536SC	599	DEBRIS	$30.00	10.57	$317.10	$317.10
8/19/2019	224824	CMC INC	126-USEPAREGION-472	56	610536SC	507	DEBRIS	$30.00	8.48	$254.40	$254.40
8/19/2019	224825	CMC INC	126-USEPAREGION-472	57	610536SC	595	DEBRIS	$30.00	10.48	$314.40	$314.40
8/19/2019	224826	CMC INC	126-USEPAREGION-472	59	610536SC	593	DEBRIS	$30.00	8.31	$249.30	$249.30
8/19/2019	224827	CMC INC	126-USEPAREGION-472	58	610536SC	8	DEBRIS	$30.00	10.45	$313.50	$313.50
8/19/2019	224828	CMC INC	126-USEPAREGION-472	60	610536SC	596	DEBRIS	$30.00	8.32	$249.60	$249.60
8/19/2019	224829	CMC INC	126-USEPAREGION-472	61	610536SC	505	DEBRIS	$30.00	8.9	$267.00	$267.00
Customer Total	61								641.24	$19,237.20	$19,237.20

Customer Summary Report
Criteria: 08/19/2019 12:00 AM to 08/19/2019 11:59 PM
Business Unit Name: Oakwood Landfill - S03056 (USA)
Profile: 610536SC

Ticket Date	Ticket ID	Customer	Generator	Manifest	Profile	Truck	Material	Tons
8/19/2019	224723	CMC INC	126-USEPAREGION-472	- Able Fire site	610536SC	16	DEBRIS	10.17
8/19/2019	224724	CMC INC	126-USEPAREGION-472	USEPA Able fire site	610536SC	599	DEBRIS	11.25
8/19/2019	224728	CMC INC	126-USEPAREGION-472	USEPA- able fire site	610536SC	507	DEBRIS	11.76
8/19/2019	224729	CMC INC	126-USEPAREGION-472	usEPA- ABLE FIRE SITE	610536SC	506	DEBRIS	8.75
8/19/2019	224730	CMC INC	126-USEPAREGION-472	005	610536SC	505	DEBRIS	13.08
8/19/2019	224737	CMC INC	126-USEPAREGION-472	007	610536SC	8	DEBRIS	8.95
8/19/2019	224738	CMC INC	126-USEPAREGION-472	006	610536SC	595	DEBRIS	10.57
8/19/2019	224739	CMC INC	126-USEPAREGION-472	008	610536SC	596	DEBRIS	11.36
8/19/2019	224740	CMC INC	126-USEPAREGION-472	009	610536SC	593	DEBRIS	10.17
8/19/2019	224741	CMC INC	126-USEPAREGION-472	010	610536SC	553	DEBRIS	10.83
8/19/2019	224743	CMC INC	126-USEPAREGION-472	011	610536SC	16	DEBRIS	9.5
8/19/2019	224744	CMC INC	126-USEPAREGION-472	012	610536SC	599	DEBRIS	8.78
8/19/2019	224746	CMC INC	126-USEPAREGION-472	013	610536SC	507	DEBRIS	11
8/19/2019	224747	CMC INC	126-USEPAREGION-472	014	610536SC	506	DEBRIS	12.37
8/19/2019	224751	CMC INC	126-USEPAREGION-472	015	610536SC	505	DEBRIS	10.54
8/19/2019	224754	CMC INC	126-USEPAREGION-472	016	610536SC	16	DEBRIS	10.24
8/19/2019	224755	CMC INC	126-USEPAREGION-472	018	610536SC	599	DEBRIS	8.88
8/19/2019	224756	CMC INC	126-USEPAREGION-472	017	610536SC	8	DEBRIS	9.43
8/19/2019	224757	CMC INC	126-USEPAREGION-472	019	610536SC	593	DEBRIS	9.96
8/19/2019	224760	CMC INC	126-USEPAREGION-472	020	610536SC	507	DEBRIS	12.56
8/19/2019	224761	CMC INC	126-USEPAREGION-472	021	610536SC	595	DEBRIS	9.97
8/19/2019	224763	CMC INC	126-USEPAREGION-472	022	610536SC	596	DEBRIS	11.35
8/19/2019	224764	CMC INC	126-USEPAREGION-472	023	610536SC	553	DEBRIS	8.97
8/19/2019	224766	CMC INC	126-USEPAREGION-472	024	610536SC	506	DEBRIS	9.99
8/19/2019	224767	CMC INC	126-USEPAREGION-472	025	610536SC	505	DEBRIS	12.7
8/19/2019	224768	CMC INC	126-USEPAREGION-472	026	610536SC	16	DEBRIS	10.59
8/19/2019	224770	CMC INC	126-USEPAREGION-472	027	610536SC	599	DEBRIS	10.92
8/19/2019	224774	CMC INC	126-USEPAREGION-472	028	610536SC	8	DEBRIS	11.31
8/19/2019	224775	CMC INC	126-USEPAREGION-472	029	610536SC	507	DEBRIS	11.58
8/19/2019	224776	CMC INC	126-USEPAREGION-472	030	610536SC	593	DEBRIS	11.96
8/19/2019	224777	CMC INC	126-USEPAREGION-472	031	610536SC	595	DEBRIS	9.68
8/19/2019	224778	CMC INC	126-USEPAREGION-472	032	610536SC	506	DEBRIS	10.03
8/19/2019	224779	CMC INC	126-USEPAREGION-472	033	610536SC	596	DEBRIS	11.17
8/19/2019	224780	CMC INC	126-USEPAREGION-472	034	610536SC	553	DEBRIS	8.92
8/19/2019	224781	CMC INC	126-USEPAREGION-472	035	610536SC	505	DEBRIS	12.47
8/19/2019	224782	CMC INC	126-USEPAREGION-472	036	610536SC	16	DEBRIS	9.56
8/19/2019	224786	CMC INC	126-USEPAREGION-472	037	610536SC	599	DEBRIS	10.11
8/19/2019	224790	CMC INC	126-USEPAREGION-472	039	610536SC	507	DEBRIS	11.15
8/19/2019	224792	CMC INC	126-USEPAREGION-472	040	610536SC	595	DEBRIS	10.4
8/19/2019	224793	CMC INC	126-USEPAREGION-472	042	610536SC	593	DEBRIS	12.18

8/19/2019	224794	CMC INC	126-USEPAREGION-472	038	610536SC	8	DEBRIS	11.31
8/19/2019	224797	CMC INC	126-USEPAREGION-472	043	610536SC	596	DEBRIS	11.94
8/19/2019	224800	CMC INC	126-USEPAREGION-472	044	610536SC	553	DEBRIS	10.9
8/19/2019	224801	CMC INC	126-USEPAREGION-472	046	610536SC	16	DEBRIS	12.14
8/19/2019	224802	CMC INC	126-USEPAREGION-472	045	610536SC	505	DEBRIS	10.69
8/19/2019	224805	CMC INC	126-USEPAREGION-472	047	610536SC	599	DEBRIS	11.8
8/19/2019	224809	CMC INC	126-USEPAREGION-472	041	610536SC	507	DEBRIS	12.34
8/19/2019	224810	CMC INC	126-USEPAREGION-472	048	610536SC	595	DEBRIS	10.35
8/19/2019	224813	CMC INC	126-USEPAREGION-472	049	610536SC	593	DEBRIS	8.99
8/19/2019	224814	CMC INC	126-USEPAREGION-472	050	610536SC	8	DEBRIS	10.3
8/19/2019	224817	CMC INC	126-USEPAREGION-472	051	610536SC	596	DEBRIS	9.15
8/19/2019	224818	CMC INC	126-USEPAREGION-472	052	610536SC	553	DEBRIS	9.97
8/19/2019	224819	CMC INC	126-USEPAREGION-472	53	610536SC	16	DEBRIS	10
8/19/2019	224820	CMC INC	126-USEPAREGION-472	52	610536SC	505	DEBRIS	10.69
8/19/2019	224822	CMC INC	126-USEPAREGION-472	55	610536SC	599	DEBRIS	10.57
8/19/2019	224824	CMC INC	126-USEPAREGION-472	56	610536SC	507	DEBRIS	8.48
8/19/2019	224825	CMC INC	126-USEPAREGION-472	57	610536SC	595	DEBRIS	10.48
8/19/2019	224826	CMC INC	126-USEPAREGION-472	59	610536SC	593	DEBRIS	8.31
8/19/2019	224827	CMC INC	126-USEPAREGION-472	58	610536SC	8	DEBRIS	10.45
8/19/2019	224828	CMC INC	126-USEPAREGION-472	60	610536SC	596	DEBRIS	8.32
8/19/2019	224829	CMC INC	126-USEPAREGION-472	61	610536SC	505	DEBRIS	8.9
Customer Total	61							641.24

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 4:51:40 PM
To: Byrd, Terrence <Byrd.Terrence@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Able Contracting Fire - 472 Schinger Ave.
Attachments: Chris Russell - Able Contracting Fire.pdf (250.37 KB)

FYSA

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Taylor Daley <Taylor.Daley@bjwsa.org>
Sent: Tuesday, August 27, 2019 11:49 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Pretreatment <Pretreatment@bjwsa.org>; Customer Service <CustomerService@bjwsa.org>
Subject: Able Contracting Fire - 472 Schinger Ave.

Good Afternoon Chris,

Please see the attached approval letter.

Thank you and have a wonderful day!

Taylor Daley
Administrative Coordinator, Treatment Operations
Taylor.Daley@bjwsa.org

BJWSA
6 Snake Rd
Okatie, SC 29909
Phone: 843-987-8063
http://www.bjwsa.org

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Armstrong, Kathy

From: Russell, Chris
Sent: Tuesday, August 27, 2019 12:52 PM
To: Byrd, Terrence; Swanson, Courtney; Spurlin, Steve; Tanner, Terry
Subject: FW: Able Contracting Fire - 472 Schinger Ave.
Attachments: Chris Russell - Able Contracting Fire.pdf

FYSA

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Taylor Daley <Taylor.Daley@bjwsa.org>
Sent: Tuesday, August 27, 2019 11:49 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Pretreatment <Pretreatment@bjwsa.org>; Customer Service <CustomerService@bjwsa.org>
Subject: Able Contracting Fire - 472 Schinger Ave.

Good Afternoon Chris,

Please see the attached approval letter.

Thank you and have a wonderful day!

Taylor Daley
Administrative Coordinator, Treatment Operations
Taylor.Daley@bjwsa.org

BJWSA
6 Snake Rd
Okatie, SC 29909
Phone: 843-987-8063
http://www.bjwsa.org

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BEAUFORT - JASPER WATER & SEWER AUTHORITY

6 SNAKE ROAD, OKATIE, SC 29909-3937
Phone 843.987.8100 | Fax 843.548.0096
Customer Service 843.987.9200
Operations & Maintenance 843.987.8046
Engineering 843.987.8065
www.bjwsa.org

Our mission: Inspire trust and enhance public health

JOE MANTUA, PE, GENERAL MANAGER
843.987.8044 (o) | 843.540.4002 (c)

August 27, 2019

Mr. Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Russell.Chris@epa.gov

Re: Able Contracting Fire
472 Schinger Ave.
Ridgeland SC 29936

Dear Mr. Russell:

BJWSA has reviewed the information you provided on the Novacool UEF firefighting foam. BJWSA approves the use of this product at the Able Contracting fire with these special conditions:

1. The product must be used at the prescribed rate of 0.4%.
2. Appropriate cross connection control must be provided. Per BJWSA's Cross Connection policy, this means an air gap or reduced pressure device.

You may obtain a construction meter, which includes a backflow device, from BJWSA's Customer Service department. If you use your own device, please provide a record of SCDHEC certified testing within the last year.

This approval does not include any other or additional firefighting chemicals.

Please do not hesitate to contact me with any questions or comments.

Sincerely,

Earl Sheppard

cc: File

MICHAEL L. BELL
CHAIR

JIMMY BAKER
VICE-CHAIR

GREGORY A. PADGETT
SECRETARY/TREASURER

DONNA L. ALTMAN
ANDY KINGHORN
GERALD H. SCHULZE

LORRAINE W. BOND
DONALD A. MANSON
DR. WILLIAM SINGLETON

BRANDY M. GRAY
R. THAYER RIVERS, JR

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 12:02:02 PM
To: Subash Patel <Patel.Subash@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: FW: Able Fire Account Code

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Miller, Angela <Miller.Angela@epa.gov>
Sent: Saturday, August 17, 2019 3:30 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: FW: Able Fire Account Code

As requested sir.....

From: Franco, Benjamin <Franco.Benjamin@epa.gov>
Sent: Thursday, August 8, 2019 6:42 PM
To: Tolliver, Ronald <Tolliver.Ronald@epa.gov>
Cc: McCullough, Rachel <McCullough.Rachel@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Re: Hilton Head

ER TAs are same as a removal TA.

PREFIX	FY/YR	APPR	ORG	LABEL	PRC
DE9	2019	T	04D	Superfund Emergency	

Respectfully,

Benjamin Franco,
Federal On Scene Coordinator
Emergency Response, Removal and Prevention Branch
Superfund Division
USEPA R4
61 Forsyth St
Atlanta, GA 30303

404-562-8758 (w)
404-915-6952 (c)

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 1:16:06 PM
To: Jim Webster <webster.james@epa.gov>; Moore, Tony <moore.tony@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Able Runoff

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Sunday, August 25, 2019 12:42 PM
To: Reece, Myra <reecemc@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: RE: Able Runoff

Good Afternoon Myra & Terry:

(b)(6) Personal did come to our location Wednesday morning while we were having an operations meeting before work started for the day. He was visibly upset and expressed several concerns to Matt Huyser. Given (b)(6) Personal visible angst, I volunteered to go to (b)(6) Personal property with him to address his concerns. In turn, myself and another EPA colleague went to the JS Site with (b)(6) and surveyed the area. My recollection of the facts as described by (b)(6) in his email are different. I feel confident that the other EPA individual present at the JS Site would also have a different recollection of the facts as described by (b)(6) Personal This would not be due to collusion of Agency personnel, but rather due to a collusion of the facts that took place.

As we have openly communicated continuously, as with the previous fire-fighting operations conducted by others at this site, we will not be able to collect 100% of our fire-mitigation water, however we will collect and treat/reuse as much as we can to the extent practicable. Although the odor noted down near the JS Site couldn't be differentiated between what was present in the air verses (b)(6) Personal assumption of the water being the genesis of the odor, the EPA team did take his concerns seriously. In turn, we installed the air sparging system to help with potential H2S odors, as well as allowing for increased dissolved oxygen present in the water. Likewise, we were also successful in partnering with BJWSA to gain permission to ship fire-mitigation water to their treatment facility, which has decreased the amount of off-site migration of fire-mitigation water.

I hope this email will provide more clarity to the events presented by (b)(6) Personal Naturally, should anyone have any comments, questions, or concerns, pertaining to this matter, they should feel free to contact me.

Respectfully,

Chris Russell
Federal On Scene Coordinator

Share Copy link Download Delete Copy to Version history Previous 47 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 1:16:06 PM
To: Jim Webster <webster.james@epa.gov>; Moore, Tony <moore.tony@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Able Runoff

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Sunday, August 25, 2019 12:42 PM
To: Reece, Myra <reecemc@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: RE: Able Runoff

Good Afternoon Myra & Terry:

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Respectfully,

Chris Russell
Federal On Scene Coordinator

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From: Russell, Chris <Russell.Chris@epa.gov>
Sent on: Tuesday, August 27, 2019 2:11:33 PM
To: Henry, Timothy <thenry5@wm.com>
Subject: FW: Debris Disposal FW: Price offer Able from WM
Attachments: Able Price offer 8-26-19.docx (12.09 KB)

Good Morning Tim:

I wanted to loop you in on this email for situational awareness.

Once again, thanks for taking the time/effort to meet with us and providing options in regards to disposal.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email, etc.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Monday, August 26, 2019 5:08 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Debris Disposal FW: Price offer Able from WM

Good Afternoon Everyone:

First of all, thank you to everyone who had a hand in pulling together today's meeting between EPA, SCDHEC, and Waste Management. As expressed in today's meeting, Waste Management has been a solid partner in helping EPA during our fire-mitigation operations, specifically by extending their landfill hours, opening up on days they are normally closed, and providing competitive tipping rates. Attached, you will find a pricing proposal provided by Waste Management. The first price break applicable to EPA's operations occurs after 30,000 tons of debris being shipped to their facility. That volume equates to roughly ten times the amount of debris we have shipped off-site thus far.

To date, EPA has addressed approximately 7,000 tons of debris in response to the Able Contracting Fire. Approximately 3,500 tons have been strategically relocated on-site and approximately 3,800 tons have been disposed of off-site. Given the amount of working space we now have, the amount of area we have to work with in the "gap", and the tremendous progress we have made in actually mitigating the fire, it's hard to fathom a situation in which we will need to dispose of 30,000 tons off-site. To be quite honest, I can't project a scenario whereby EPA will need to address more than 15,000 tons and I sincerely believe that would be a stretch.

In a nutshell, the pricing proposal will not alter EPA's approach to addressing debris at the Able Contracting fire via

Armstrong, Kathy

From: Russell, Chris
Sent: Tuesday, August 27, 2019 10:12 AM
To: Henry, Timothy
Subject: FW: Debris Disposal FW: Price offer Able from WM
Attachments: Able Price offer 8-26-19.docx

Good Morning Tim:

I wanted to loop you in on this email for situational awareness.

Once again, thanks for taking the time/effort to meet with us and providing options in regards to disposal.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email, etc.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Monday, August 26, 2019 5:08 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Debris Disposal FW: Price offer Able from WM

Good Afternoon Everyone:

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To date, EPA has addressed approximately 7,000 tons of debris in response to the Able Contracting Fire. Approximately 3,500 tons have been strategically relocated on-site and approximately 3,800 tons have been disposed of off-site. Given the amount of working space we now have, the amount of area we have to work with in the "gap", and the tremendous progress we have made in actually mitigating the fire, it's hard to fathom a situation in which we will need to dispose of 30,000 tons off-site. To be quite honest, I can't project a scenario whereby EPA will need to address more than 15,000 tons and I sincerely believe that would be a stretch.

In a nutshell, the pricing proposal will not alter EPA's approach to addressing debris at the Able Contracting fire via the strategic relocating of debris on-site, coupled with off-site disposal operations.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Henry, Timothy <thenry5@wm.com>
Sent: Monday, August 26, 2019 4:31 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>; Muckenfuss, Mark <MMuckenfuss@wm.com>
Subject: RE: Price offer Able from WM

Chris,

I hate to do this, but there was an error in the letter I sent you. I'll blame it on the haste in meeting your schedule.... All my fault. The take-or-pay option is (b)(4) not (b)(4). My apologies. I didn't have time to explain earlier, but you should know that when we were first approached about pricing for this waste by EnviroSmart and Ensafe, we priced it at (b)(4) When CMC and USEPA took over, we dropped the price to (b)(4) after meeting with Rick Hollingsworth. So our (b)(4) offer is really a reduction of (b)(4) over our original offer.

Again, sorry for the confusion. Attached is the letter that should replace the original.

Tim Henry
Sr. Industrial Account Manager
South Carolina
843 409-5472
Thenry5@wm.com

WASTE MANAGEMENT
THINK GREEN.

From: Russell, Chris <Russell.Chris@epa.gov>
Sent: Monday, August 26, 2019 3:58 PM
To: Muckenfuss, Mark <MMuckenfuss@wm.com>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: RE: Price offer Able from WM

Thanks Mark and WM Team for turning this around so quickly. We will talk with our State partners, upper management, etc and see if there is a path forward they would like to take.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Muckenfuss, Mark <MMuckenfuss@wm.com>
Sent: Monday, August 26, 2019 2:21 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: Price offer Able from WM

Chris,

Excuse the letter in its informal state, but I can formalize it later.

Recycling is a good thing. Please recycle any printed emails.

Waste Management Proposal for Cost Savings from Able Contracting

August 26, 2019

Revised 4:30 PM

To whom it may concern:

Per your request, Waste Management has reviewed our cost and are able to offer some assistance in disposal costs at our Oakwood landfill. We are offering two options as described below.

Assumptions: (b)(4) CBI remaining

Open extended hours on weekend

Current cost for (b)(4) s (b)(4) CBI (b)(4) CBI

Option 1 – Take-or-Pay

We will offer a price of (b)(4) CBI with a guaranteed (b)(4) CBI Total cost is $1,680,000. If you ship > (b)(4) CBI your cost will remain at $(b)(4) If you ship < (b)(4) CBI you will owe the difference.

Option 2 – Sliding scale price

We will decrease our price every (b)(4) CBI received by (b)(4) CBI (b)(4) CBI - (b)(4) CBI

(b)(4) CBI

Your total cost if you ship (b)(4) CBI is $(b)(4) CBI

Please let me know if you have any questions.

Tim Henry

Waste Management

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 2:35:33 PM
To: Chief Ricardo Salabarria <Ricardo.salabarria@tampagov.net>
Subject: FW: novacool tampa

Hey Brother, you got a tote of that Novacool we can get off of ya? Need to get it as soon as possible if ya'll can spare some. From what I understand, ya'll are gonna hook us up with a tote, we are gonna pay Novacool, and ya'll will get new material or something to that effect.

What do we need to do on our end to get that tote up here to Ridgeland, SC (near Hilton Head, little north of Savannah).

My gut told me I should have just called you in the first place😉

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:27 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: novacool tampa

Hi Chris here is the contact with Tampa Fire you can call him to make arrangements for them to deliver the tote. They might be able to get it there today. Let me know what you come up with. thanks Bill

-----Original Message-----
From: Jimmy Combs <Jimmy.Combs@tampagov.net>
To: ucfm1@aol.com <ucfm1@aol.com>
Sent: Fri, Aug 23, 2019 10:12 am
Subject: novacool tampa

Ricardo.Salabarria@tampagov.net
813-557-5402

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 1:57:24 PM
To: Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: FW: PFAS (Novacool)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Tuesday, August 27, 2019 8:49 AM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: PFAS (Novacool)

FYSA

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Tuesday, August 27, 2019 8:47 AM
To: Tricia H. Kilgore, P.E. <Tricia.Kilgore@bjwsa.org>
Cc: Earl Sheppard <Earl.Sheppard@bjwsa.org>
Subject: RE: PFAS (Novacool)

Good Morning Tracia:

Thanks for the review and the information relative to Novacool. We conducted a beta-test with the Novacool a few days ago, and given the way our operations are being conducted, there was no noticeable difference. In turn, we will not utilize the foam in the future on this response.

Please let me know if you have any comments, questions, or concerns pertaining to this message.

Thank you and your team for partnering with us.

Respectfully,

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 12:48:47 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: PFAS (Novacool)

FYSA

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Tuesday, August 27, 2019 8:47 AM
To: Tricia H. Kilgore, P.E. <Tricia.Kilgore@bjwsa.org>
Cc: Earl Sheppard <Earl.Sheppard@bjwsa.org>
Subject: RE: PFAS (Novacool)

Good Morning Tracia:

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Please let me know if you have any comments, questions, or concerns pertaining to this message.

Thank you and your team for partnering with us.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Tricia H. Kilgore, P.E. <Tricia.Kilgore@bjwsa.org>
Sent: Tuesday, August 27, 2019 8:03 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Earl Sheppard <Earl.Sheppard@bjwsa.org>
Subject: RE: PFAS (Novacool)

Chris,

Share Copy link Download Delete Copy to Version history Previous 52 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 30, 2019 2:07:27 PM
To: Roff, Nick <nick.roff@floridadep.gov>
Subject: FW: PFAS (Novacool)
Attachments: 2044938-Novacool UEF 05-21-2019.pdf (622.61 KB), PFAS testing.pdf (66.94 KB)

FYI.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Friday, August 23, 2019 10:44 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Marcus, Mike <MARCUSJM@dhec.sc.gov>; tricia.kilgore@bjwsa.org
Cc: Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: FW: PFAS (Novacool)

Good Morning Everyone:

Forwarded for situational awareness.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:40 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: PFAS

Hi Chris here are the links for the testing of novacool for PFAS.

-----Original Message-----
From: Paul Berger <Paul@baumscastorine.com>
To: Sales <ucfm1@aol.com>
Sent: Fri, Jul 19, 2019 12:31 pm

Armstrong, Kathy

From: Russell, Chris
Sent: Friday, August 30, 2019 10:07 AM
To: Roff, Nick
Subject: FW: PFAS (Novacool)
Attachments: 2044938-Novacool UEF 05-21-2019.pdf; PFAS testing.pdf

FYI.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Friday, August 23, 2019 10:44 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Marcus, Mike <MARCUSJM@dhec.sc.gov>; tricia.kilgore@bjwsa.org
Cc: Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: FW: PFAS (Novacool)

Good Morning Everyone:

Forwarded for situational awareness.

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Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:40 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: PFAS

Hi Chris here are the links for the testing of novacool for PFAS.

-----Original Message-----
From: Paul Berger <Paul@baumscastorine.com>
To: Sales <ucfm1@aol.com>
Sent: Fri, Jul 19, 2019 12:31 pm
Subject: PFAS

Bill,

Please see attached. Please call when you get this.

Paul H. Berger
Baum's Castorine Co. Inc.
315-336-8154

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Baum's Castorine Co. Inc.
200 Matthew Street
Rome NY 13440

Report Date: June 10, 2019 14:14

Project: Novacool UEF

Account #: 44390
Group Number: 2044938
PO Number: 010980
State of Sample Origin: NY

Electronic Copy To Baum's Castorine Co. Inc. Attn: Paul Berger

Respectfully Submitted,

Elizabeth M. Bauer

Elizabeth M. Bauer
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
Novacool UEF Product Sample	05/17/2019 15:30	1062334

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Lancaster Laboratories
Environmental
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Analysis Report

Sample Description: **Novacool UEF Product Sample**

Project Name: **Novacool UEF**

Baum's Castorine Co. Inc.
ELLE Sample #: G5 1062334
ELLE Group #: 2044938
Matrix: Misc Organic

Submittal Date/Time: 05/21/2019 09:50
Collection Date/Time: 05/17/2019 15:30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		ng/l	ng/l	
14473	10:2Fluorotelomersulfonic acid	120226-60-0	< 15,000	15,000	10
14473	4:2-Fluorotelomersulfonic acid	757124-72-4	< 15,000	15,000	10
14473	6:2-Fluorotelomersulfonic acid	27619-97-2	< 10,000	10,000	10
14473	8:2-Fluorotelomersulfonic acid	39108-34-4	< 30,000	30,000	10
14473	NEtFOSAA	2991-50-6	< 15,000	15,000	10
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NEtPFOSA	4151-50-2	< 45,000	45,000	10
	NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide				
14473	NEtPFOSAE	1691-99-2	< 15,000	15,000	10
	NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol				
14473	NMeFOSAA	2355-31-9	< 15,000	15,000	10
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMePFOSA	31506-32-8	< 45,000	45,000	10
	NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide				
14473	NMePFOSAE	24448-09-7	< 15,000	15,000	10
	NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol				
14473	Perfluorobutanesulfonic acid	375-73-5	< 5,000	5,000	10
14473	Perfluorobutanoic acid	375-22-4	< 30,000	30,000	10
14473	Perfluorodecanesulfonic acid	335-77-3	< 10,000	10,000	10
14473	Perfluorodecanoic acid	335-76-2	< 10,000	10,000	10
14473	Perfluorododecanesulfonic acid	79780-39-5	< 5,000	5,000	10
14473	Perfluorododecanoic acid	307-55-1	< 10,000	10,000	10
14473	Perfluoroheptanesulfonic acid	375-92-8	< 10,000	10,000	10
14473	Perfluoroheptanoic acid	375-85-9	< 5,000	5,000	10
14473	Perfluorohexadecanoic acid	67905-19-5	< 5,000	5,000	10
14473	Perfluorohexanesulfonic acid	355-46-4	< 10,000	10,000	10
14473	Perfluorohexanoic acid	307-24-4	< 10,000	10,000	10
14473	Perfluorononanesulfonic acid	68259-12-1	< 10,000	10,000	10
14473	Perfluorononanoic acid	375-95-1	< 10,000	10,000	10
14473	Perfluorooctadecanoic acid	16517-11-6	< 10,000	10,000	10
14473	Perfluorooctanesulfonamide	754-91-6	< 15,000	15,000	10
14473	Perfluorooctanesulfonic acid	1763-23-1	< 10,000	10,000	10
14473	Perfluorooctanoic acid	335-67-1	< 5,000	5,000	10
14473	Perfluoropentanesulfonate	2706-91-4	< 10,000	10,000	10
14473	Perfluoropentanoic acid	2706-90-3	< 30,000	30,000	10
14473	Perfluorotetradecanoic acid	376-06-7	< 5,000	5,000	10
14473	Perfluorotridecanoic acid	72629-94-8	< 5,000	5,000	10
14473	Perfluoroundecanoic acid	2058-94-8	< 10,000	10,000	10

Reporting limits were raised due to interference from the sample matrix.

The recovery for sample injection standard peak areas and several extraction standards is outside of QC acceptance limits as noted on the QC Summary due to the matrix of the sample.

Target analytes were outside of QC acceptance limits as noted on the QC Summary in the Laboratory Control Spike(s) associated with this

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: **Novacool UEF Product Sample**

Project Name: **Novacool UEF**

Baum's Castorine Co. Inc.
ELLE Sample #: G5 1062334
ELLE Group #: 2044938
Matrix: Misc Organic

Submittal Date/Time: 05/21/2019 09:50
Collection Date/Time: 05/17/2019 15:30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
sample.					

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS in Product	EPA 537 Version 1.1 Modified	1	19151013	06/05/2019 17:07	Jason W Knight	10
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19151013	05/31/2019 12:10	Robert Brown	1

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Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/l	LOQ ng/l
Batch number: 19151013	Sample number(s): 1062334	
10:2Fluorotelomersulfonic acid	< 1,500	1,500
4:2-Fluorotelomersulfonic acid	< 1,500	1,500
6:2-Fluorotelomersulfonic acid	< 1,000	1,000
8:2-Fluorotelomersulfonic acid	< 3,000	3,000
NEtFOSAA	< 1,500	1,500
NEtPFOSA	< 4,500	4,500
NEtPFOSAE	< 1,500	1,500
NMeFOSAA	< 1,500	1,500
NMePFOSA	< 4,500	4,500
NMePFOSAE	< 1,500	1,500
Perfluorobutanesulfonic acid	< 500	500
Perfluorobutanoic acid	< 3,000	3,000
Perfluorodecanesulfonic acid	< 1,000	1,000
Perfluorodecanoic acid	< 1,000	1,000
Perfluorododecanesulfonic acid	< 500	500
Perfluorododecanoic acid	< 1,000	1,000
Perfluoroheptanesulfonic acid	< 1,000	1,000
Perfluoroheptanoic acid	< 500	500
Perfluorohexadecanoic acid	< 500	500
Perfluorohexanesulfonic acid	< 1,000	1,000
Perfluorohexanoic acid	< 1,000	1,000
Perfluorononanesulfonic acid	< 1,000	1,000
Perfluorononanoic acid	< 1,000	1,000
Perfluorooctadecanoic acid	< 1,000	1,000
Perfluorooctanesulfonamide	< 1,500	1,500
Perfluorooctanesulfonic acid	< 1,000	1,000
Perfluorooctanoic acid	< 500	500
Perfluoropentanesulfonate	< 1,000	1,000
Perfluoropentanoic acid	< 3,000	3,000
Perfluorotetradecanoic acid	< 500	500
Perfluorotridecanoic acid	< 500	500
Perfluoroundecanoic acid	< 1,000	1,000

LCS/LCSD

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19151013	Sample number(s): 1062334								
10:2Fluorotelomersulfonic acid	3856	4205.1	3856	4042.04	109	105	49-186	4	30
4:2-Fluorotelomersulfonic acid	3736	3528.35	3736	3839.41	94	103	82-152	8	30
6:2-Fluorotelomersulfonic acid	3792	4039.56	3792	4165.05	107	110	66-155	3	30
8:2-Fluorotelomersulfonic acid	3832	4098.38	3832	4287.92	107	112	66-148	5	30
NEtFOSAA	1360	1536.53	1360	1470.31	113	108	55-169	4	30
NEtPFOSA	1360	1500.08	1360	< 4,500	110	0*	70-130	200*	30
NEtPFOSAE	1360	1774.37	1360	1774.99	130	131*	70-130	0	30
NMeFOSAA	1360	1533.14	1360	1269.87	113	93	44-147	19	30
NMePFOSA	1360	< 4,500	1360	< 4,500	0*	0*	70-130	0	30
NMePFOSAE	1360	1431.57	1360	1271.67	105	94	70-130	12	30
Perfluorobutanesulfonic acid	1204	1370.73	1204	1355.04	114	113	73-128	1	30
Perfluorobutanoic acid	1360	2793.07	1360	2482.96	205*	183*	74-142	12	30
Perfluorodecanesulfonic acid	1310	1464.94	1310	1584.46	112	121	60-135	8	30
Perfluorodecanoic acid	1360	1584.73	1360	1596.73	117	117	69-148	1	30
Perfluorododecanesulfonic acid	1316	1591.64	1316	1325.4	121	101	70-130	18	30
Perfluorododecanoic acid	1360	1522.3	1360	1466.36	112	108	75-136	4	30
Perfluoroheptanesulfonic acid	1294	1424.98	1294	1491.28	110	115	64-135	5	30
Perfluoroheptanoic acid	1360	1838.86	1360	1585.27	135	117	76-140	15	30
Perfluorohexadecanoic acid	1360	1625.96	1360	1734.28	120	128	21-151	6	30
Perfluorohexanesulfonic acid	1286	1332.36	1286	1379.36	104	107	71-131	3	30
Perfluorohexanoic acid	1360	1690.25	1360	1748.13	124	129	75-135	3	30
Perfluorononanesulfonic acid	1306	1555.94	1306	1490.93	119	114	66-133	4	30
Perfluorononanoic acid	1360	1615.99	1360	1647.5	119	121	72-148	2	30
Perfluorooctadecanoic acid	1360	1565.22	1360	1654.11	115	122	70-130	6	30
Perfluorooctanesulfonamide	1360	1322.97	1360	1498.2	97	110	65-164	12	30
Perfluorooctanesulfonic acid	1300	1427.45	1300	1292.11	110	99	67-138	10	30
Perfluorooctanoic acid	1360	1753.08	1360	1771.63	129	130	72-138	1	30
Perfluoropentanesulfonate	1276	1425.64	1276	1323.57	112	104	76-127	7	30
Perfluoropentanoic acid	1360	1530.02	1360	1566.84	113	115	74-134	2	30
Perfluorotetradecanoic acid	1360	1558.48	1360	1571.58	115	116	74-135	1	30
Perfluorotridecanoic acid	1360	1525.12	1360	1482.18	112	109	61-145	3	30
Perfluoroundecanoic acid	1360	1508.58	1360	1572.17	111	116	75-146	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 32 PFAS in Product
Batch number: 19151013

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1062334	77	77	73	248*	229*	188*
Blank	90	86	87	97	91	84
LCS	95	93	91	108	96	99
LCSD	85	86	84	94	88	88
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1062334	161*	957*	82	77	67	74
Blank	91	94	89	85	86	93
LCS	95	98	96	98	106	99
LCSD	89	89	88	88	84	90
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1062334	84	231*	388*	334*	483*	645*
Blank	101	106	96	102	96	87
LCS	107	113	108	115	103	100
LCSD	91	122	102	113	102	90
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA	d7-NMePFOSAE	d3-NMePFOSA	d9-NEtPFOSAE	d5-NEtPFOSA
1062334	61	383*	337*	502*	630*
Blank	111	36	49	39	44
LCS	111	45	49	48	40
LCSD	103	51	56	51	52
Limits:	11-127	10-128	10-104	10-121	10-106

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 44390 Group # 2044938 Sample # 1062334

COC #583675

Client Information

Client: Baum's Castorine Co. Inc.
Acct. #: 44390
Project Name/#: Novacool UEF
PWSID #:
Project Manager: Paul Berger
P.O. #: ~~OTG~~ 010980
Sampler: Paul Berger
Quote #: 220819A
State where samples were collected: New York
For Compliance: Yes ☐ No ☑

For Lab Use Only
FSC:
SCR#: 243274

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water: Ground	Water: Potable	Water: Surface	Water: NPDES	Other: product sample	Total # of Containers	PFAS in Product	Remarks
Novacool UEF	5/17/19	3:30 PM										X	1	32	

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: _____

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Edwin Hernandez	5/14/19	1520	Paul H. Berger	5/15/19	3:00PM
Paul H. Berger	5/20/19	3:00 PM			

EDD Required? Yes No
If yes, format: _____
Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ✓ FedEx ____ Other ____
Temperature upon receipt 2.8 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 249517

Group Number(s): 2044938

Client: Baum's Castorine Co. Inc.

Novacool UEF

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	05/21/2019 9:50
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Katie Hartlove (2114) at 12:27 on 05/21/2019

Samples Chilled Details: Novacool UEF

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.8	DT	Wet	N	Bagged	N

Container Quantity Discrepancy Details: Novacool UEF

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
Novacool UEF	2	1	

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Baum's Castorine Co., Inc.
Manufacturing Chemists Since 1879

July 11, 2019

Extensive scientific research has shown that low levels of materials from the perfluorooctanyl chemistry are present in the environment, including living organisms, and they persist for long periods of time. PFOS (perfluorooctanyl sulfonate), together with surfactants that degrade to PFOA (Perfluorooctanoic acid), have been used to make aqueous film forming foam (AFFF).

Novacool UEF was developed as a Fluorine free universal extinguishing foam for use at 0.5%. It is a mixture of amphoteric, nonionic, and anionic surfactants containing no perfluoroalkyl functional groups. Testing by CH2M Hill show it to be readily degradable.

We have been asked to provide supporting evidence to our claim that Novacool UEF is formulated without the use of perfluoroalkyl surfactants. Novacool UEF Samples were submitted to Eurofins Lancaster Laboratories for testing by GCMS. No perfluoroalkyl compounds were detected at or above the lower detection limits of the test. For PFOS and PFOA the lower detection limits are 10,000 ng/l [0.01 ppm] and 5000 ng/l [0.005 ppm], respectively. Had these materials been used as performance ingredients in Novacool UEF, they would have been detected at many orders of magnitude higher than the limit.

Paul H. Berger

Paul H. Berger, President

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 9:54:01 PM
To: Subash Patel <Patel.Subash@epa.gov>
Subject: FW: Site Update

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Monday, August 19, 2019 5:13 PM
To: Frank Edwards <fedwards@jaspercountysc.gov>
Cc: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: RE: Site Update

Good Afternoon Frank:

We were able to get 61 loads sent off-site today. The loads average about 10 tons each (ballpark, but a pretty solid number for estimating purposes). In turn, between Saturday's operations of removing the material and today's, we have shipped about 900 tons of material off-site.

We did not encounter any issues with safety or air quality at the Site or off-site today, nor did we have any traffic issues.

We did conduct air-monitoring at the Okatie Elementary School last night (duplicate, i.e. both our folks and the Coast Guard folks using separate equipment). We did not encounter any HCN detections in the school, outside of the school, etc.

Don't hesitate to contact me should you have any other questions and/or concerns.

Have a good evening.

Respectfully,

Chris Russell
Federal On Scene Coordinator

Share Copy link Download Delete Copy to Version history Previous 54 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 2:19:50 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Stream Screen values
Attachments: Outlook-pjxg3x43.png (6.71 KB), ATT00001.htm (578 Bytes), Able DHEC.xlsx (12.13 KB), ATT00002.htm (236 Bytes), Able EPA.pdf (34.73 KB), ATT00003.htm (178 Bytes)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Shealy, Renee <shealyrg@dhec.sc.gov>
Sent: Saturday, August 24, 2019 11:40 AM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Stream Screen values

Sent from my iPhone

Begin forwarded message:

From: "Marcus, Mike" <MARCUSJM@dhec.sc.gov>
Date: August 24, 2019 at 11:37:40 AM EDT
To: "Martin, James" <martinjm@dhec.sc.gov>
Cc: "Shealy, Renee" <shealyrg@dhec.sc.gov>
Subject: Stream Screen values

Jim:

2 tables attached....

1. 1. Able DHEC -- values we are using for surface water input screen... use the highlighted column... it presents the most stringent (i.e., protective) of the stream standard or the R4 EPA eco screen value. There are a few where no values are published in either source; id'd as *No Value. All units for screening are in ug/L;* acute values used because this is not a chronic event.

Armstrong, Kathy

From: Russell, Chris
Sent: Monday, August 26, 2019 10:20 AM
To: Tanner, Terry
Subject: FW: Stream Screen values
Attachments: Outlook-pjxg3x43.png; ATT00001.htm; Abel DHEC.xlsx; ATT00002.htm; Able EPA.pdf; ATT00003.htm

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Shealy, Renee <shealyrg@dhec.sc.gov>
Sent: Saturday, August 24, 2019 11:40 AM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Stream Screen values

Sent from my iPhone

Begin forwarded message:

> **From:** "Marcus, Mike" <MARCUSJM@dhec.sc.gov>
> **Date:** August 24, 2019 at 11:37:40 AM EDT
> **To:** "Martin, James" <martinjm@dhec.sc.gov>
> **Cc:** "Shealy, Renee" <shealyrg@dhec.sc.gov>
> **Subject: Stream Screen values**
>
> Jim:
>
> 2 tables attached....
>
> 1. 1. Able DHEC -- values we are using for surface water input screen... use the highlighted column... it presents the most stringent (i.e., protective) of the stream standard or the R4 EPA eco screen value. There are a few where no values are published in either source; id'd as *No Value. All units for screening are in ug/L;* acute values used because this is not a chronic event.

2. Able EPA -- for reference and info; the table EPA used in evaluating the data from a ditch and on-site well they collected around the first of August.

These should use the same values, but suggest that you use the values in the DHEC table for consistency.

Regards,

Mike

Mike Marcus, Ph.D.
Chief, Bureau of Water
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4210
Fax: (803) 898-3795
Connect: www.scdhec.gov Facebook witter

dhe

althy People Healthy Co

SortOrder	Parm	Method	Result	R_Code	Units	Converted_result	ConvertedUnits	Screen Value	DHEC_WQS_Acute S	DHEC_WQS_Acute S Adj	S_units	Comment	Organoleptic Effect Criteria ug/L	Region4 RISK Acute	
1	Acetone	8260B	98		ug/L			355606						355,606	
2	Benzene	8260B	28		ug/L			1100						1,100	
3	2-Butanone (MEK)	8260B	24		ug/L			201828						201828	
4	Carbon disulfide	8260B	4	J	ug/L			130						130	
5	Chloromethane	8260B	1.1	J	ug/L			No Value							
6	1,2-Dichloroethane	8260B	0.5	J	ug/L			8200						8200	
7	1,2-Dichloropropane	8260B	0.45	J	ug/L			3300						3300	
8	Ethylbenzene	8260B	5.6		ug/L			550						550	
9	Isopropylbenzene	8260B	0.66	J	ug/L			43						43	
10	4-Methyl-2-pentanone	8260B	3.7	J	ug/L			8165						8,165	
11	Styrene	8260B	1.2	J	ug/L			1575						1575	
12	Toluene	8260B	14		ug/L			3005						3005	
13	Xylenes	8260B	3.6	J	ug/L			1057						1057	
14	2,4-Dimethylphenol	82760D	44		ug/L			140					400	140	
15	2-Methylphenol	82760D	50		ug/L			600						600	
16	3+4-Methylphenol	82760D	25		ug/L			65872						65,872	
17	Acetophenone	82760D	11		ug/L			No Value							
18	bis(2-Ethylexyl)phthalate	82760D	1	J	ug/L			1100						1100	
19	Caprolactam	82760D	2300	B	ug/L			No Value							
20	Di-n-butyl phthalate	82760D	1.1	BJ	ug/L			34						34	
21	Naphthalene	82760D	1.1		ug/L			170						170	
22	Phenol	82760D	65		ug/L			300					300	4700	
23	Aluminum	6010D	0.3	J	mg/L	300	ug/L	750						750	
24	Antimony	6010D	0.15		mg/L	150	ug/L	900						900	
25	Arsenic	6010D	0.33		mg/L	330	ug/L	340	340		ug/L				
26	Barium	6010D	0.12		mg/L	120	ug/L	2000						2,000	
27	Calcium	6010D	710		mg/L	710000	ug/L	116000						116,000	Chronic
28	Chromium	6010D	0.092		mg/L	92	ug/L	16	16		68.5 ug/L	Chromium VI			
29	Cobalt	6010D	0.0071	J	mg/L	7.1	ug/L	120						120	
30	Copper	6010D	0.19		mg/L	190	ug/L	3.8	3.8		7.44 ug/L		1000		
31	Iron	6010D	5.1		mg/L	5100	ug/L	1000						1000	Chronic
32	Lead	6010D	0.015		mg/L	15	ug/L	14	14		18.21 ug/L				
33	Magnesium	6010D	57		mg/L	57000	ug/L	82000						82000	Chronic
34	Manganese	6010D	0.73		mg/L	730	ug/L	1680						1680	
35	Nickel	6010D	0.037	J	mg/L	37	ug/L	150	150		223.05 ug/L				
36	Potassium	6010D	83		mg/L	83000	ug/L	53000						53000	Chronic
37	Sodium	6010D	240		mg/L	240000	ug/L	680000						680000	Chronic
38	Vanadium	6010D	0.027	J	mg/L	27	ug/L	79						79	
39	Zinc	6010D	0.81	B	mg/L	810	ug/L	37	37		81.42 ug/L		5000		

SURFACE WATER RESULTS SUMMARY TABLE
DETECTIONS ONLY
ABLE CONTRACTING FIRE

Parameter	MCL/RSL [1]	DHEC (max/cont) /EPA (chr/acute) [2]	ACF-SW-POND
	Groundwate	Surface Water	
Metals (µg/L)			
Aluminum	*2,000*	*87/750*	251
Antimony	6	*190/900*	32.3
Arsenic	10	340/150	493
Barium	2,000	*220/2,000*	133
Cadmium	5	0.53/0.10	3.6
Calcium	NL	*116,000/NL*	725,000
Chromium	100	580/28	148
Copper	1,300	3.8/2.9	20.2
Iron	*1,400*	*1,000/NL*	300
Lead	15	14/0.54	5.0 U
Magnesium	NL	*82,000/NL*	48,900
Manganese	*48*	*93/1,680*	526
Nickel	*40*	150/16	30.5
Potassium	NL	*53,000/NL*	75,300
Sodium	NL	*680,000/NL*	248,000
Vanadium	NL	*27/79*	22.7
Zinc	*600*	37/37	24.4
Volatile Organic Compounds (µg/L)			
1,2-Dichloroethane	5	*2,000/8,200*	0.55 J
2-Butanone (MEK)	*1,200*	*22,000/200,000*	43.2 J+
2-Hexanone	*10*	*99/1,800*	5.0 U
4-Methyl-2-pentanone (MIBK)	*630*	*170/2,200*	5.0 U
Acetone	*1,800*	*1,700/15,000*	269 J+
Benzene	5	*160/700*	21.4
Chloromethane	*19*	NL	1.8
Ethylbenzene	700	*61/550*	6.0
m&p-Xylene	*400*	*27/240*	1.8 J
Naphthalene	*40*	*21/170*	2.3
o-Xylene	*400*	*27/240*	1.1
Toluene	1,000	*62/560*	10.5
Xylene (Total)	10,000	*27/240*	1.1
Semivolatile Organic Compounds (µg/L)			
2,4-Dimethylphenol	*40*	*15/140*	6.0 J
2-Methylphenol(o-Cresol)	*100*	*67/600*	11.1
3&4-Methylphenol(m&p Cresol)	*200*	*62/560*	7.9 J
Phenol	*580*	*160/4,700*	9.8 UJ

Notes:

1 Drinking water values are compared to EPA MCLs. When an MCL is not listed, the EPA RSL is

2 Surface water values are compared to DHEC Freshwater Aquatic Life levels. When DHEC levels are not listed, EPA Surface Water Screening Values are used

SHAD Reported value exceeds the comparison criteria

Acute Acute exposure

Chr Chronic exposure

Cont Continuous exposure

J The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample, biased high.

J- The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample, biased low.

Max Maximum exposure level

MCL Maximum contaminant level

NL Not listed

RSL Regional Screening Level; Tapwater TR=1E-06, THQ=0.1

U The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).

UJ The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is estimated.

µg/L micrograms per liter

Share Copy link Download Delete Copy to Version history Previous 55 of 61

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 2:20:54 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Stream Screen values
Attachments: Outlook-pjxg3x43.png (6.71 KB), ATT00001.htm (578 Bytes), Able DHEC.xlsx (12.13 KB), ATT00002.htm (236 Bytes), Able EPA.pdf (34.73 KB), ATT00003.htm (178 Bytes)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Martin, James <martinjm@dhec.sc.gov>
Sent: Saturday, August 24, 2019 12:54 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Cc: Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: Fwd: Stream Screen values

Sent from my iPhone

Begin forwarded message:

From: "Marcus, Mike" <MARCUSJM@dhec.sc.gov>
Date: August 24, 2019 at 11:37:40 AM EDT
To: "Martin, James" <martinjm@dhec.sc.gov>
Cc: "Shealy, Renee" <shealyrg@dhec.sc.gov>
Subject: Stream Screen values

Jim:

2 tables attached....

1. 1. Able DHEC -- values we are using for surface water input screen... use the highlighted column... it presents the most stringent (i.e., protective) of the stream standard or the R4 EPA eco screen value. There are a few where no values are published in either source; id'd as *No Value. All units for screening are in ug/L;* acute values used because this is not a chronic event.

Armstrong, Kathy

From: Russell, Chris
Sent: Monday, August 26, 2019 10:21 AM
To: Tanner, Terry
Subject: FW: Stream Screen values
Attachments: Outlook-pjxg3x43.png; ATT00001.htm; Abel DHEC.xlsx; ATT00002.htm; Able EPA.pdf; ATT00003.htm

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Martin, James <martinjm@dhec.sc.gov>
Sent: Saturday, August 24, 2019 12:54 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Cc: Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: Fwd: Stream Screen values

Sent from my iPhone

Begin forwarded message:

> **From:** "Marcus, Mike" <MARCUSJM@dhec.sc.gov>
> **Date:** August 24, 2019 at 11:37:40 AM EDT
> **To:** "Martin, James" <martinjm@dhec.sc.gov>
> **Cc:** "Shealy, Renee" <shealyrg@dhec.sc.gov>
> **Subject: Stream Screen values**
>
> Jim:
>
> 2 tables attached....
>
> 1. 1. Able DHEC -- values we are using for surface water input screen... use the highlighted column... it presents the most stringent (i.e., protective) of the stream standard or the R4 EPA eco screen value. There are a few where no values are published in either source; id'd as *No Value. All units for screening are in ug/L;* acute values used because this is not a chronic event.

2. Able EPA -- for reference and info; the table EPA used in evaluating the data from a ditch and on-site well they collected around the first of August.

These should use the same values, but suggest that you use the values in the DHEC table for consistency.

Regards,

Mike

Mike Marcus, Ph.D.
Chief, Bureau of Water
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4210
Fax: (803) 898-3795
Connect: www.scdhec.gov Facebook witter

SortOrder	Parm	Method	Result	R_Code	Units	Converted_result	ConvertedUnits	Screen Value	DHEC_WQS_Acute S	DHEC_WQS_Acute S Adj	S_units	Comment	Organoleptic Effect Criteria ug/L	Region4 RISK Acute
1	Acetone	8260B	98		ug/L			355606						355,606
2	Benzene	8260B	28		ug/L			1100						1,100
3	2-Butanone (MEK)	8260B	24		ug/L			201828						201828
4	Carbon disulfide	8260B	4	J	ug/L			130						130
5	Chloromethane	8260B	1.1	J	ug/L			No Value						
6	1,2-Dichloroethane	8260B	0.5	J	ug/L			8200						8200
7	1,2-Dichloropropane	8260B	0.45	J	ug/L			3300						3300
8	Ethylbenzene	8260B	5.6		ug/L			550						550
9	Isopropylbenzene	8260B	0.66	J	ug/L			43						43
10	4-Methyl-2-pentanone	8260B	3.7	J	ug/L			8165						8,165
11	Styrene	8260B	1.2	J	ug/L			1575						1575
12	Toluene	8260B	14		ug/L			3005						3005
13	Xylenes	8260B	3.6	J	ug/L			1057						1057
14	2,4-Dimethylphenol	82760D	44		ug/L			140					400	140
15	2-Methylphenol	82760D	50		ug/L			600						600
16	3+4-Methylphenol	82760D	25		ug/L			65872						65,872
17	Acetophenone	82760D	11		ug/L			No Value						
18	bis(2-Ethylexyl)phthalate	82760D	1	J	ug/L			1100						1100
19	Caprolactam	82760D	2300	B	ug/L			No Value						
20	Di-n-butyl phthalate	82760D	1.1	BJ	ug/L			34						34
21	Naphthalene	82760D	1.1		ug/L			170						170
22	Phenol	82760D	65		ug/L			300					300	4700
23	Aluminum	6010D	0.3	J	mg/L	300	ug/L	750						750
24	Antimony	6010D	0.15		mg/L	150	ug/L	900						900
25	Arsenic	6010D	0.33		mg/L	330	ug/L	340	340		ug/L			
26	Barium	6010D	0.12		mg/L	120	ug/L	2000						2,000
27	Calcium	6010D	710		mg/L	710000	ug/L	116000						116,000 Chronic
28	Chromium	6010D	0.092		mg/L	92	ug/L	16	16	68.5	ug/L	Chromium VI		
29	Cobalt	6010D	0.0071	J	mg/L	7.1	ug/L	120						120
30	Copper	6010D	0.19		mg/L	190	ug/L	3.8	3.8	7.44	ug/L		1000	
31	Iron	6010D	5.1		mg/L	5100	ug/L	1000						1000 Chronic
32	Lead	6010D	0.015		mg/L	15	ug/L	14	14	18.21	ug/L			
33	Magnesium	6010D	57		mg/L	57000	ug/L	82000						82000 Chronic
34	Manganese	6010D	0.73		mg/L	730	ug/L	1680						1680
35	Nickel	6010D	0.037	J	mg/L	37	ug/L	150	150	223.05	ug/L			
36	Potassium	6010D	83		mg/L	83000	ug/L	53000						53000 Chronic
37	Sodium	6010D	240		mg/L	240000	ug/L	680000						680000 Chronic
38	Vanadium	6010D	0.027	J	mg/L	27	ug/L	79						79
39	Zinc	6010D	0.81	B	mg/L	810	ug/L	37	37	81.42	ug/L		5000	

SURFACE WATER RESULTS SUMMARY TABLE
DETECTIONS ONLY
ABLE CONTRACTING FIRE

Parameter	MCL/RSL[1]	[illegible]	ACF-SW-POND
	Drinking Water	Surface Water	
Metals (µg/L)			
Aluminum	*2,000*	*87/750*	251
Antimony	6	*190/900*	32.3
Arsenic	10	340/150	493
Barium	2,000	*220/2,000*	133
Cadmium	5	0.53/0.10	3.6
Calcium	NL	*116,000/NL*	725,000
Chromium	100	580/28	442
Copper	1,300	3.8/2.9	20.2
Iron	*1,400*	*1,000/NL*	300
Lead	15	14/0.54	5.0 U
Magnesium	NL	*82,000/NL*	48,900
Manganese	*48*	*93/1,680*	526
Nickel	*40*	150/16	30.5
Potassium	NL	*53,000/NL*	75,300
Sodium	NL	*680,000/NL*	248,000
Vanadium	NL	*27/79*	22.7
Zinc	*600*	37/37	24.4
Volatile Organic Compounds (µg/L)			
1,2-Dichloroethane	5	*2,000/8,200*	0.55 J
2-Butanone (MEK)	*1,200*	*22,000/200,000*	43.2 J+
2-Hexanone	*10*	*99/1,800*	5.0 U
4-Methyl-2-pentanone (MIBK)	*630*	*170/2,200*	5.0 U
Acetone	*1,800*	*1,700/15,000*	269 J+
Benzene	5	*160/700*	21.4
Chloromethane	*19*	NL	1.8
Ethylbenzene	700	*61/550*	6.0
m&p-Xylene	*400*	*27/240*	1.8 J
Naphthalene	*40*	*21/170*	2.3
o-Xylene	*400*	*27/240*	1.1
Toluene	1,000	*62/560*	10.5
Xylene (Total)	10,000	*27/240*	1.1
Semivolatile Organic Compounds (µg/L)			
2,4-Dimethylphenol	*40*	*15/140*	6.0 J
2-Methylphenol(o-Cresol)	*100*	*67/600*	11.1
3&4-Methylphenol(m&p Cresol)	*200*	*62/560*	7.9 J
Phenol	*580*	*160/4,700*	9.8 UJ

Notes:

1 Drinking water values are compared to EPA MCLs. When an MCL is not listed, the EPA RSL is

2 Surface water values are compared to DHEC Freshwater Aquatic Life levels. When DHEC levels are not listed, EPA Surface Water Screening Values are used

Shaded Reported value exceeds the comparison criteria

Acute Acute exposure

Chr Chronic exposure

Cont Continuous exposure

J The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample, biased high.

J- The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample, biased low.

Max Maximum exposure level

MCL Maximum contaminant level

NL Not listed

RSL Regional Screening Level; Tapwater TR=1E-06, THQ=0.1

U The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).

UJ The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is estimated.

µg/L micrograms per liter

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 7:42:37 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; tricia.kilgore@bjwsa.org
CC: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Surface Water Samples
Attachments: Waste Pile Run off sample summary.pdf (49.6 KB)

Hello Tricia and Courtney:

Please find attached the sample SCDHEC took on August 2, 2019 in regards to run-off from the waste pile.

Courtney: I'm not sure if this meets the needs that you and Earl discussed, unfortunately I do not have his email address, so please ensure he receives it.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:20 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Surface Water Samples

Chris,

Please find attached the lab report summary for the waste pile run-off sample collected on 8/2/2019.

Jeffrey Schrag
Waste Assessment Section Manager
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4326
Mobile: (803) 429-4102

Armstrong, Kathy

From: Russell, Chris
Sent: Thursday, August 22, 2019 3:43 PM
To: Swanson, Courtney; tricia.kilgore@bjwsa.org
Cc: Tanner, Terry
Subject: FW: Surface Water Samples
Attachments: Waste Pile Run off sample summary.pdf

Hello Tricia and Courtney:

Please find attached the sample SCDHEC took on August 2, 2019 in regards to run-off from the waste pile.

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Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:20 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Surface Water Samples

Chris,

Please find attached the lab report summary for the waste pile run-off sample collected on 8/2/2019.

Jeffrey Schrag
Waste Assessment Section Manager
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4326
Mobile: (803) 429-4102

Fax: (803) 898-1415

Connect: www.scdhec.gov Facebook Twitter

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From: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:15:26 PM
To: Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Surface Water Samples

Henry,

Are you referring to the run-off from the waste pile sample?

Jeffrey Schrag
Waste Assessment Section Manager
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4326
Mobile: (803) 429-4102

Fax: (803) 898-1415

Connect: www.scdhec.gov Facebook Twitter

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From: Porter, Henry <porterhj@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:05:29 PM
To: Stewart, R. Gary <stewarrg@dhec.sc.gov>; Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Subject: Surface Water Samples

Can y'all send the surface water sample results to Chris Russell with EPA?

Russell.Chris@epa.gov.

Sent from my iPhone

SHEALY ENVIRONMENTAL SERVICES, INC.

Detection Summary
SC DHEC
Lot Number: UH02081

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
[redacted]		[redacted]	[redacted]	8260B	[redacted]	J	ug/L	7
[redacted]		[redacted]	[redacted]	8260B	0.41	J	ug/L	7
[redacted]		[redacted]	[redacted]	8270D	[redacted]		ug/L	9
[redacted]		[redacted]	[redacted]	8270D	[redacted]	BJ	ug/L	10
[redacted]		[redacted]	[redacted]	6010D	[redacted]	J	mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]		mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]		mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]		mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]	J	mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]		mg/L	11
[redacted]		[redacted]	[redacted]	6010D	[redacted]		mg/L	11
002	outside wall runoff	Aqueous	Acetone	8260B	98		ug/L	12
002	outside wall runoff	Aqueous	Benzene	8260B	28		ug/L	12
002	outside wall runoff	Aqueous	2-Butanone (MEK)	8260B	24		ug/L	12
002	outside wall runoff	Aqueous	Carbon disulfide	8260B	4.0	J	ug/L	12
002	outside wall runoff	Aqueous	Chloromethane (Methyl	8260B	1.1	J	ug/L	12
002	outside wall runoff	Aqueous	1,2-Dichloroethane	8260B	0.50	J	ug/L	12
002	outside wall runoff	Aqueous	1,2-Dichloropropane	8260B	0.45	J	ug/L	12
002	outside wall runoff	Aqueous	Ethylbenzene	8260B	5.6		ug/L	12
002	outside wall runoff	Aqueous	Isopropylbenzene	8260B	0.66	J	ug/L	12
002	outside wall runoff	Aqueous	4-Methyl-2-pentanone	8260B	3.7	J	ug/L	12
002	outside wall runoff	Aqueous	Styrene	8260B	1.2	J	ug/L	12
002	outside wall runoff	Aqueous	Toluene	8260B	14		ug/L	12
002	outside wall runoff	Aqueous	Xylenes (total)	8260B	3.6	J	ug/L	13
002	outside wall runoff	Aqueous	2,4-Dimethylphenol	8270D	44		ug/L	14
002	outside wall runoff	Aqueous	2-Methylphenol	8270D	50		ug/L	14
002	outside wall runoff	Aqueous	3+4-Methylphenol	8270D	25		ug/L	14
002	outside wall runoff	Aqueous	Acetophenone	8270D	11		ug/L	14
002	outside wall runoff	Aqueous	bis(2-Ethylhexyl)phthalate	8270D	1.0	J	ug/L	14
002	outside wall runoff	Aqueous	Caprolactam	8270D	2300	B	ug/L	14
002	outside wall runoff	Aqueous	Di-n-butyl phthalate	8270D	1.1	BJ	ug/L	15
002	outside wall runoff	Aqueous	Naphthalene	8270D	1.1		ug/L	15
002	outside wall runoff	Aqueous	Phenol	8270D	65		ug/L	15
002	outside wall runoff	Aqueous	Aluminum	6010D	0.30	J	mg/L	16
002	outside wall runoff	Aqueous	Antimony	6010D	0.15		mg/L	16
002	outside wall runoff	Aqueous	Arsenic	6010D	0.33		mg/L	16
002	outside wall runoff	Aqueous	Barium	6010D	0.12		mg/L	16
002	outside wall runoff	Aqueous	Calcium	6010D	710		mg/L	16
002	outside wall runoff	Aqueous	Chromium	6010D	0.092		mg/L	16
002	outside wall runoff	Aqueous	Cobalt	6010D	0.0071	J	mg/L	16
002	outside wall runoff	Aqueous	Copper	6010D	0.19		mg/L	16
002	outside wall runoff	Aqueous	Iron	6010D	5.1		mg/L	16
002	outside wall runoff	Aqueous	Lead	6010D	0.015		mg/L	16
002	outside wall runoff	Aqueous	Magnesium	6010D	57		mg/L	16
002	outside wall runoff	Aqueous	Manganese	6010D	0.73		mg/L	16

Detection Summary (Continued)

Lot Number: UH02081

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	outside wall runoff	Aqueous	Nickel	6010D	0.037	J	mg/L	16
002	outside wall runoff	Aqueous	Potassium	6010D	83		mg/L	16
002	outside wall runoff	Aqueous	Sodium	6010D	240		mg/L	16
002	outside wall runoff	Aqueous	Vanadium	6010D	0.027	J	mg/L	16
002	outside wall runoff	Aqueous	Zinc	6010D	0.81	B	mg/L	16
~~003~~	~~mobile 394~~	~~Aqueous~~	~~Caprolactam~~	~~8270D~~	~~1.2~~	~~BJ~~	~~ug/L~~	~~19~~
~~003~~	~~mobile 394~~	Aqueous	Arsenic	6010D	0.0034	J	mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Barium	6010D	0.0054	J	mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Calcium	6010D	29		mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Copper	6010D	0.0020	J	mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Magnesium	6010D	1.7		mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Manganese	6010D	0.033		mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Potassium	6010D	2.7	J	mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Sodium	6010D	9.0		mg/L	21
~~003~~	~~mobile 394~~	Aqueous	Zinc	6010D	0.015	BJ	mg/L	21
~~004~~	~~mobile 394 DUP~~	Aqueous	Caprolactam	8270D	2.6	BJ	ug/L	24
~~004~~	~~mobile 394 DUP~~	Aqueous	Di-n-butyl phthalate	8270D	1.5	BJ	ug/L	25
~~004~~	~~mobile 394 DUP~~	Aqueous	Arsenic	6010D	0.0038	J	mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Barium	6010D	0.0057	J	mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Calcium	6010D	30		mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Copper	6010D	0.0022	J	mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Magnesium	6010D	9.9		mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Manganese	6010D	0.032		mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Potassium	6010D	2.7	J	mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Sodium	6010D	1.5		mg/L	26
~~004~~	~~mobile 394 DUP~~	Aqueous	Zinc	6010D	0.015	BJ	mg/L	26
~~005~~	~~mobile 130~~	Aqueous	Caprolactam	8270D	2.0	BJ	ug/L	29
~~005~~	~~mobile 130~~	Aqueous	Arsenic	6010D	0.0026	J	mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Barium	6010D	0.0053	J	mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Calcium	6010D	29		mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Magnesium	6010D	1.5		mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Manganese	6010D	0.023		mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Potassium	6010D	2.6	J	mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Sodium	6010D	9.2		mg/L	31
~~005~~	~~mobile 130~~	Aqueous	Zinc	6010D	0.011	BJ	mg/L	31
~~006~~	~~mobile 130 DUP~~	Aqueous	Caprolactam	8270D	2.5	BJ	ug/L	34
~~006~~	~~mobile 130 DUP~~	Aqueous	Di-n-butyl phthalate	8270D	1.0	BJ	ug/L	35
~~006~~	~~mobile 130 DUP~~	Aqueous	Barium	6010D	0.0052	J	mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Calcium	6010D	27		mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Magnesium	6010D	8.1		mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Manganese	6010D	0.022		mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Potassium	6010D	1.5	J	mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Sodium	6010D	4.8		mg/L	36
~~006~~	~~mobile 130 DUP~~	Aqueous	Zinc	6010D	0.010	BJ	mg/L	36
~~007~~	~~House 352~~	Aqueous	Acetone	8260B	7.3	J	ug/L	37
~~007~~	~~House 352~~	Aqueous	Caprolactam	8270D	2.[illegible]	BJ	ug/L	39
~~007~~	~~House 352~~	Aqueous	Barium	6010D	0.0052	J	mg/L	41
007	House 352	Aqueous	Calcium	6010D	33		mg/L	41

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 9:46:27 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Subash Patel <Patel.Subash@epa.gov>
Subject: FW: Today's Able Update
Attachments: ATT00001.txt (51 Bytes)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reece, Myra <reecemc@dhec.sc.gov>
Sent: Friday, August 23, 2019 5:43 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Today's Able Update

Sent from my iPhone

Begin forwarded message:

> **From:** "Yon, Katherine" <yonk@dhec.sc.gov>
> **Date:** August 20, 2019 at 4:48:02 PM EDT
> **To:** "Reece, Myra" <reecemc@dhec.sc.gov>, "Shealy, Renee" <shealyrg@dhec.sc.gov>, "Moore, Cristi Y." <moorecy@dhec.sc.gov>, "Crosby, L. Tommy" <crosbylt@dhec.sc.gov>, "Caldwell, Richard" <CALDWERT@dhec.sc.gov>, "Thompson, Rhonda" <thompsrb@dhec.sc.gov>, "Porter, Henry" <porterhj@dhec.sc.gov>, "Frost, Keith" <frostrk@dhec.sc.gov>
> **Cc:** "Marshall, Frances (Fran)" <marshaf2@dhec.sc.gov>, "Boyce, Lawra" <boycelc@dhec.sc.gov>, "Gary, Joseph T." <garyjt@dhec.sc.gov>, "Childers, Elizabeth K." <childeek@dhec.sc.gov>, "Renwick, Laura A." <renwicla@dhec.sc.gov>, "Boswell, Wendy" <BOSWELWM@dhec.sc.gov>, "Stewart, R. Gary" <stewarrg@dhec.sc.gov>, "Spradlin, Michael J." <spradlmj@dhec.sc.gov>, "Lee, Paul" <leepd@dhec.sc.gov>
> **Subject: Today's Able Update**
>
> https://www.scdhec.gov/environment/ongoing-projects-updates/able-contracting-fire/able-contracting-fire-updates
>
> Thank you.
>
> Katherine Yon
> Outreach Coordinator

Armstrong, Kathy

From: Russell, Chris
Sent: Friday, August 23, 2019 5:46 PM
To: Tanner, Terry; Swanson, Courtney; Subash Patel
Subject: FW: Today's Able Update
Attachments: ATT00001.txt

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reece, Myra <reecemc@dhec.sc.gov>
Sent: Friday, August 23, 2019 5:43 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Today's Able Update

Sent from my iPhone

Begin forwarded message:

> **From:** "Yon, Katherine" <yonk@dhec.sc.gov>
> **Date:** August 20, 2019 at 4:48:02 PM EDT
> **To:** "Reece, Myra" <reecemc@dhec.sc.gov>, "Shealy, Renee" <shealyrg@dhec.sc.gov>, "Moore, Cristi Y." <moorecy@dhec.sc.gov>, "Crosby, L. Tommy" <crosbylt@dhec.sc.gov>, "Caldwell, Richard" <CALDWERT@dhec.sc.gov>, "Thompson, Rhonda" <thompsrb@dhec.sc.gov>, "Porter, Henry" <porterhj@dhec.sc.gov>, "Frost, Keith" <frostrk@dhec.sc.gov>
> **Cc:** "Marshall, Frances (Fran)" <marshaf2@dhec.sc.gov>, "Boyce, Lawra" <boycelc@dhec.sc.gov>, "Gary, Joseph T." <garyjt@dhec.sc.gov>, "Childers, Elizabeth K." <childeek@dhec.sc.gov>, "Renwick, Laura A." <renwicla@dhec.sc.gov>, "Boswell, Wendy" <BOSWELWM@dhec.sc.gov>, "Stewart, R. Gary" <stewarrg@dhec.sc.gov>, "Spradlin, Michael J." <spradlmj@dhec.sc.gov>, "Lee, Paul" <leepd@dhec.sc.gov>
> **Subject: Today's Able Update**
>
> https://www.scdhec.gov/environment/ongoing-projects-updates/able-contracting-fire/able-contracting-fire-updates
>
> Thank you.
>
> **Katherine Yon**
> Outreach Coordinator
> Office of Environmental Affairs
> **S.C. Dept. of Health & Environmental Control**

Office: (803) 898-2731
Mobile: (803) 429-3298
Fax: (803) 898-1246
Connect: www.scdhec.gov Facebook Twitter

The content image001.jpg of type has been blocked.

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 5:39:14 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; Kevin Hitron <kevin@cmcenvironment.com>
Subject: FW: tote gallons

Alright:

Here's the plan. We will pay Novacool for the 265 gallon tote, Tampa FD will let us borrow one of their totes and we will replace it via Novacool. There are shipping costs that will be included as well. I will let ya know when I know those costs.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:53 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: tote gallons

Hi Chris the totes hold 265 gallons x 25.00 per gal. = 6625.00 plus S/h. thanks Bill

Share Copy link Download Delete Copy to Version history Previous 59 of 91

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 2:10:39 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Wetting Agent
Attachments: Novacool MSDS.pdf (433.13 KB)

Forwarded For Your Situational Awareness, I will let ya'll know what I find out.

I have also asked Ben and Matt to check in to seeing if there are any issues with our Agency in utilizing this product.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Thursday, August 22, 2019 10:09 AM
To: 'Ziegler, David' <ziegledm@dhec.sc.gov>; 'MARCUSJM@dhec.sc.gov' <MARCUSJM@dhec.sc.gov>
Subject: Wetting Agent

Good Morning Gentlemen:

David: thanks for facilitating our request in regards to getting DHEC's approval on potentially using various wetting agents as we work to mitigate the fire at Able Contracting.

Mike: thank you for offering to spearhead the review of potential wetting agents. I have attached the MSDS for the first such agent we may consider. If you and your team can let us know if the use of this product would be acceptable by DHEC, I would greatly appreciate it.

In advance, thank you both for partnering with us on this response.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM

Armstrong, Kathy

From: Russell, Chris
Sent: Thursday, August 22, 2019 10:11 AM
To: Swanson, Courtney; Tanner, Terry
Subject: FW: Wetting Agent
Attachments: Novacool MSDS.pdf

Forwarded For Your Situational Awareness, I will let ya'll know what I find out.

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Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Russell, Chris
Sent: Thursday, August 22, 2019 10:09 AM
To: 'Ziegler, David' <ziegledm@dhec.sc.gov>; 'MARCUSJM@dhec.sc.gov' <MARCUSJM@dhec.sc.gov>
Subject: Wetting Agent

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Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject:

Courtney Swanson, MS
Federal On Scene Coordinator
US EPA Region 4, Emergency Response, Removal, and Prevention Branch
(404) 562-8753 (O)
(470) 728-8238 (M)

MATERIAL SAFETY DATA SHEET

03/06/2006
Rev. 1.9

1. GENERAL

Product identity	: Baum's Novacool UEF
Product application	: Firefighting foam concentrate at 0.4%
Hazard ratings	: Health _1_
	Flammability _0_
	Reactivity _0_
	Personal protection _A_
Manufacturer	: Baum's Castorine Co., Inc. 200 Matthew Street Rome, New York 13440 USA 800-825-8154

2. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous components	OSHA PEL	ACGIH TLY	Other limits recommended	% (optional)
---	---	---	---	---

The product contains no hazardous components as defined by the Occupational Safety and Health Administration's Hazard Communication Standerd 29CFR 1910.1000 and 29CFR 1910.1200

Reportable Quantity (RQ)	
EPA Regulation 40 CFR 3029CERCLA (Section 102)	: No RQ for this product.
Threshold Planning Quantity (TPQ)	
EPA Regulation 40 CFR 355 (SARA Sections 301-304)	: No TPQ for this product.
Toxic Chemical Release Reporting	
EPA Regulation CFR 372 (SARA Section 313)	: NONE.
Hazard Chemical Reporting	
EPA Regulation 40 CFR 370 (SARA Sections 311-312)	: Not applicable.

3. PRODUCT DESCRIPTION / COMPOSITION

Novacool UEF is a blend of organic surfactants being anionic, nonionic and amphoteric surfactants.

4. PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling point	: 212°F, 100°C
Freezing point	: 30°F, -1°C
pH range	: 6.75 - 7.80
Typical pH	: 7.10
Specific gravity range	: 1.020 - 1.050
Typical specific gravity	: 1.036
Percent, volatile by volume (%)	: Water 62.5
Vapour pressure	: Not available
Vapour density	: Not available
Evaporation rate	: Equal to water
Solubility in water	: Complete
Refractive index of concentrate	: 31.0 - 34.0° Brix
Biodegradability	: Fully
Toxicity	: Non-toxic in use solution when applied in accordance with accepted firefighting

	procedure
Fluorocarbons	: **NONE**
Shelf life	: 10 years
Appearance & odor	: Light yellow liquid, faintly aromatic

5. REACTIVITY DATA

Stability	: Stable
Incompatability (materials to avoid)	: Strong oxidizers and acids
Hazardous polymerization	: Will not occur
Conditions to avoid	: None known

6. HAZARD DATA

FIRE & EXPLOSION HAZARD

Flash point (method used)	: None
Flammable limits	: Not applicable
Extinguishing media	: Not applicable
Special firefighting procedures	: Not applicable
Unusual fire & explosion hazards	: None

HEALTH HAZARDS (acute and chronic)

Inhalation toxicity	: Vapor may cause irritation
Skin irritation	: Prolonged contact may cause irritation. No irritation anticipated from acute exposure.
Eye irritation	: Alcohol Ether Sulfate 35%, causes mild to moderate eye irritation. No permanent damage anticipated from acute exposure.
Sensitizer	: No.
Dot Corrosive	: No.
Ingestion	: Ingestion of concentrate will cause gasto intestinal irritation. No effects of exposure when product is used at normal dilution of 2 parts Novacool UEF to 500 parts water.

CARCINOGENICITY

NTP	: No.
IARC Monographs	: No.
OSHA Regulated	: No.
Signs and symptoms of exposure	: Redness and irritation to eyes if washout precautions are not taken.

MEDICAL CONDITIONS

Generally aggravated by exposure	: None known.

EMERGENCY FIRST AID PROCEDURES

Inhalation	: Remove to fresh air.
Skin	: For all foreign materials, wash after exposure.
Eyes	: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: Give patient plenty of water, two (2) glasses. Call a physician or poison control center Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician.

7. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:
Absorb with earth, sand or similar inert material and dispose of with solid wastes according to federal, state and local regulations. Flush spill area with water. Product is biodegradable and non-hazardous.

Waste disposal method:
Dispose of with liquid waste according to federal, state and local regulations.

Precautions to be taken in handling and storing:

Transportation data domestic -	DOT Shipping name	: Not regulated
DOT Hazard class -	Hazardous ingredients	: None
	UN Number	: None

Other precautions:

Transportation data export -	Export shipping name	: Not regulated
Export Hazard class -	Hazardous ingredients	: None
	UN Number	: None

8. CONTROL MEASURES

Respiratory protection	: Not required
Ventilation local exhaust	: Not required
Mechanical (general)	: Not required
Protective gloves	: Not required
Eye protection	: Chemical goggles
Other protective clothing or equipment	: None required
Work/hygenic practices	: For all foreign materials, wash after exposure

Share Copy link Download Delete Copy to Version history Previous 60 of 91

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 6:34:17 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
CC: Byrd, Terrence <Byrd.Terrence@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: FW: Wetting Agent

FYSA

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Marcus, Mike <MARCUSJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 1:59 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Ziegler, David <ziegledm@dhec.sc.gov>
Cc: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; shealyrg@dhec.sc.gov; Burdick, Stephen <burdicsc@dhec.sc.gov>; Jeffrey Schrag <schragjm@dhec.sc.gov>
Subject: Re: Wetting Agent

Chris:

Then Department has reviewed information on the proposed wetting agent and has no objections to it being deployed by EPA. The chemistry looks good and we especially appreciate its non-fluoro-containing characteristic and its amenability to aquatic environments re: impact potential

We do request that EPA consider make some type of proper public communication prior to deployment so that there will not be a misunderstanding by the public that PFAS-containing materials is being used once foam is observed being applied.

Thank you for the opportunity to offer our input and for your ongoing work.

Best Regards,

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent on: Wednesday, August 21, 2019 9:58:13 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Subject: Fwd: 610536SC 08.21.19 CSR and Tonnage Report
Attachments: 610536SC CSR 08.21.19.xlsx (15.46 KB), 610536SC Tonnage Report 08.21.19.xlsx (14.26 KB)

Here we go gentlemen. The tonnage report is attached. The hauling fee for today is $11,040.

Sent from my iPhone

Begin forwarded message:

From: "Thomas, Teresa" <tthoma32@wm.com>
Date: August 21, 2019 at 5:44:34 PM EDT
To: 'Kevin Hitron' <kevin@cmcenvironment.com>, 'Rick Hollingsworth' <cmcrickh@aol.com>
Cc: "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>
Subject: 610536SC 08.21.19 CSR and Tonnage Report

Good Afternoon,

Please find attached the 610536SC CSR and tonnage report for 08.21.19. If you have any questions or concerns, let me know. Have a nice evening.

Thanks,
Terri
Teresa "Terri" Thomas
Industrial Technical Service Representative
Emelle Technical Service Center
tthoma32@wm.com

Waste Management
Emelle TSC
Post Office Box 55
36964 Alabama Highway 17 North
Emelle, Alabama 35459
205.652.8164 - Office
866.448.8871- Fax

Armstrong, Kathy

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent: Wednesday, August 21, 2019 5:58 PM
To: Russell, Chris; Tanner, Terry; Swanson, Courtney; Patel, Subash; Hitman
Subject: Fwd: 610536SC 08.21.19 CSR and Tonnage Report
Attachments: 610536SC CSR 08.21.19.xlsx; 610536SC Tonnage Report 08.21.19.xlsx

Here we go gentlemen. The tonnage report is attached. The hauling fee for today is $11,040.

Sent from my iPhone

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> **From:** "Thomas, Teresa" <tthoma32@wm.com>
> **Date:** August 21, 2019 at 5:44:34 PM EDT
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> **Cc:** "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>
> **Subject: 610536SC 08.21.19 CSR and Tonnage Report**
>
> Good Afternoon,
>
> Please find attached the 610536SC CSR and tonnage report for 08.21.19. If you have any questions or concerns, let me know. Have a nice evening.
>
> Thanks,
> Terri
> Teresa "Terri" Thomas
> Industrial Technical Service Representative
> Emelle Technical Service Center
> tthoma32@wm.com
>
> Waste Management
> Emelle TSC
> Post Office Box 55
> 36964 Alabama Highway 17 North
> Emelle, Alabama 35459
> 205.652.8164 - Office
> 866.448.8871- Fax

Recycling is a good thing. Please recycle any printed emails.

Customer Summary Report
Criteria: 08/21/2019 12:00 AM to 08/21/2020 11:59 PM
Business Unit Name: Oakwood Landfill - S03056 (USA)
Profile: 610536SC

Ticket Date	Ticket ID	Customer	Generator	Manifest	Profile	Truck	Material	Material Description	Rate	Tons	Material Revenue	Total
8/21/2019	224964	CMC INC	126-USEPAREGION-472	131	610536SC	596	DEBRIS	Special Waste Misc	$30.00	10.27	$308.10	$308.10
8/21/2019	224965	CMC INC	126-USEPAREGION-472	132	610536SC	595	DEBRIS	Special Waste Misc	$30.00	9.34	$280.20	$280.20
8/21/2019	224969	CMC INC	126-USEPAREGION-472	8512905	610536SC	597	DEBRIS	Special Waste Misc	$30.00	9.97	$299.10	$299.10
8/21/2019	224971	CMC INC	126-USEPAREGION-472	8512904	610536SC	553	DEBRIS	Special Waste Misc	$30.00	9.48	$284.40	$284.40
8/21/2019	224972	CMC INC	126-USEPAREGION-472	8512906	610536SC	593	DEBRIS	Special Waste Misc	$30.00	9.88	$296.40	$296.40
8/21/2019	224973	CMC INC	126-USEPAREGION-472	8512907	610536SC	599	DEBRIS	Special Waste Misc	$30.00	10.27	$308.10	$308.10
8/21/2019	224974	CMC INC	126-USEPAREGION-472	8512908	610536SC	507	DEBRIS	Special Waste Misc	$30.00	12.56	$376.80	$376.80
8/21/2019	224976	CMC INC	126-USEPAREGION-472	8512909	610536SC	16	DEBRIS	Special Waste Misc	$30.00	9.97	$299.10	$299.10
8/21/2019	224977	CMC INC	126-USEPAREGION-472	8512910	610536SC	8	DEBRIS	Special Waste Misc	$30.00	9.04	$271.20	$271.20
8/21/2019	224978	CMC INC	126-USEPAREGION-472	8512911	610536SC	583	DEBRIS	Special Waste Misc	$30.00	9.65	$289.50	$289.50
8/21/2019	224981	CMC INC	126-USEPAREGION-472	8512912	610536SC	596	DEBRIS	Special Waste Misc	$30.00	8.77	$263.10	$263.10
8/21/2019	224982	CMC INC	126-USEPAREGION-472	8512913	610536SC	595	DEBRIS	Special Waste Misc	$30.00	9.93	$297.90	$297.90
8/21/2019	224986	CMC INC	126-USEPAREGION-472	8512914	610536SC	553	DEBRIS	Special Waste Misc	$30.00	7.84	$235.20	$235.20
8/21/2019	224988	CMC INC	126-USEPAREGION-472	8512915	610536SC	593	DEBRIS	Special Waste Misc	$30.00	10.6	$318.00	$318.00
8/21/2019	224989	CMC INC	126-USEPAREGION-472	8512916	610536SC	597	DEBRIS	Special Waste Misc	$30.00	9.3	$279.00	$279.00
8/21/2019	224990	CMC INC	126-USEPAREGION-472	8512918	610536SC	507	DEBRIS	Special Waste Misc	$30.00	11.22	$336.60	$336.60
8/21/2019	224991	CMC INC	126-USEPAREGION-472	8512917	610536SC	599	DEBRIS	Special Waste Misc	$30.00	10.32	$309.60	$309.60
8/21/2019	224992	CMC INC	126-USEPAREGION-472	8512920	610536SC	8	DEBRIS	Special Waste Misc	$30.00	9.19	$275.70	$275.70
8/21/2019	224993	CMC INC	126-USEPAREGION-472	8512919	610536SC	16	DEBRIS	Special Waste Misc	$30.00	10.56	$316.80	$316.80
8/21/2019	224994	CMC INC	126-USEPAREGION-472	8512921	610536SC	583	DEBRIS	Special Waste Misc	$30.00	8.48	$254.40	$254.40
8/21/2019	224996	CMC INC	126-USEPAREGION-472	8512922	610536SC	596	DEBRIS	Special Waste Misc	$30.00	9.1	$273.00	$273.00
8/21/2019	224997	CMC INC	126-USEPAREGION-472	8512923	610536SC	595	DEBRIS	Special Waste Misc	$30.00	9.01	$270.30	$270.30
8/21/2019	225000	CMC INC	126-USEPAREGION-472	8512924	610536SC	553	DEBRIS	Special Waste Misc	$30.00	8.36	$250.80	$250.80
8/21/2019	225001	CMC INC	126-USEPAREGION-472	8512925	610536SC	597	DEBRIS	Special Waste Misc	$30.00	9.98	$299.40	$299.40
8/21/2019	225003	CMC INC	126-USEPAREGION-472	8512927	610536SC	593	DEBRIS	Special Waste Misc	$30.00	9.02	$270.60	$270.60
8/21/2019	225007	CMC INC	126-USEPAREGION-472	8512929	610536SC	599	DEBRIS	Special Waste Misc	$30.00	8.04	$241.20	$241.20
8/21/2019	225010	CMC INC	126-USEPAREGION-472	8512928	610536SC	8	DEBRIS	Special Waste Misc	$30.00	10.35	$310.50	$310.50
8/21/2019	225011	CMC INC	126-USEPAREGION-472	8512926	610536SC	507	DEBRIS	Special Waste Misc	$30.00	10.65	$319.50	$319.50
8/21/2019	225014	CMC INC	126-USEPAREGION-472	8512930	610536SC	16	DEBRIS	Special Waste Misc	$30.00	10.87	$326.10	$326.10
8/21/2019	225015	CMC INC	126-USEPAREGION-472	8512933	610536SC	596	DEBRIS	Special Waste Misc	$30.00	10.15	$304.50	$304.50
8/21/2019	225016	CMC INC	126-USEPAREGION-472	8512932	610536SC	595	DEBRIS	Special Waste Misc	$30.00	10.32	$309.60	$309.60
8/21/2019	225018	CMC INC	126-USEPAREGION-472	8512934	610536SC	583	DEBRIS	Special Waste Misc	$30.00	8.97	$269.10	$269.10
8/21/2019	225020	CMC INC	126-USEPAREGION-472	8512934	610536SC	505	DEBRIS	Special Waste Misc	$30.00	10.31	$309.30	$309.30
8/21/2019	225021	CMC INC	126-USEPAREGION-472	8512935	610536SC	597	DEBRIS	Special Waste Misc	$30.00	9.32	$279.60	$279.60
8/21/2019	225022	CMC INC	126-USEPAREGION-472	8512936	610536SC	593	DEBRIS	Special Waste Misc	$30.00	9.84	$295.20	$295.20
8/21/2019	225025	CMC INC	126-USEPAREGION-472	8512937	610536SC	599	DEBRIS	Special Waste Misc	$30.00	8.83	$264.90	$264.90
8/21/2019	225026	CMC INC	126-USEPAREGION-472	8512938	610536SC	8	DEBRIS	Special Waste Misc	$30.00	10.89	$326.70	$326.70
8/21/2019	225028	CMC INC	126-USEPAREGION-472	8512939	610536SC	507	DEBRIS	Special Waste Misc	$30.00	12.4	$372.00	$372.00
8/21/2019	225029	CMC INC	126-USEPAREGION-472	8512940	610536SC	16	DEBRIS	Special Waste Misc	$30.00	10.18	$305.40	$305.40
8/21/2019	225030	CMC INC	126-USEPAREGION-472	8512941	610536SC	596	DEBRIS	Special Waste Misc	$30.00	9.67	$290.10	$290.10
8/21/2019	225032	CMC INC	126-USEPAREGION-472	8512942	610536SC	595	DEBRIS	Special Waste Misc	$30.00	10.07	$302.10	$302.10
8/21/2019	225033	CMC INC	126-USEPAREGION-472	8512943	610536SC	583	DEBRIS	Special Waste Misc	$30.00	10.21	$306.30	$306.30
8/21/2019	225035	CMC INC	126-USEPAREGION-472	8512944	610536SC	553	DEBRIS	Special Waste Misc	$30.00	9.76	$292.80	$292.80
8/21/2019	225039	CMC INC	126-USEPAREGION-472	8512945	610536SC	593	DEBRIS	Special Waste Misc	$30.00	9.56	$286.80	$286.80
8/21/2019	225043	CMC INC	126-USEPAREGION-472	8512946	610536SC	599	DEBRIS	Special Waste Misc	$30.00	9.71	$291.30	$291.30
8/21/2019	225045	CMC INC	126-USEPAREGION-472	8512947	610536SC	507	DEBRIS	Special Waste Misc	$30.00	13.58	$407.40	$407.40
8/21/2019	225046	CMC INC	126-USEPAREGION-472	8512948	610536SC	16	DEBRIS	Special Waste Misc	$30.00	10.19	$305.70	$305.70
8/21/2019	225047	CMC INC	126-USEPAREGION-472	8512949	610536SC	8	DEBRIS	Special Waste Misc	$30.00	10.43	$312.90	$312.90
8/21/2019	225050	CMC INC	126-USEPAREGION-472	8512950	610536SC	596	DEBRIS	Special Waste Misc	$30.00	10.38	$311.40	$311.40
8/21/2019	225053	CMC INC	126-USEPAREGION-472	8512952	610536SC	583	DEBRIS	Special Waste Misc	$30.00	10.9	$327.00	$327.00
8/21/2019	225054	CMC INC	126-USEPAREGION-472	8512951	610536SC	595	DEBRIS	Special Waste Misc	$30.00	10.32	$309.60	$309.60
8/21/2019	225055	CMC INC	126-USEPAREGION-472	8512954	610536SC	593	DEBRIS	Special Waste Misc	$30.00	10.88	$326.40	$326.40
8/21/2019	225056	CMC INC	126-USEPAREGION-472	8512953	610536SC	553	DEBRIS	Special Waste Misc	$30.00	10.25	$307.50	$307.50
8/21/2019	225059	CMC INC	126-USEPAREGION-472	8512955	610536SC	507	DEBRIS	Special Waste Misc	$30.00	12.71	$381.30	$381.30
8/21/2019	225060	CMC INC	126-USEPAREGION-472	8512956	610536SC	599	DEBRIS	Special Waste Misc	$30.00	9.8	$294.00	$294.00
8/21/2019	225061	CMC INC	126-USEPAREGION-472	8512957	610536SC	16	DEBRIS	Special Waste Misc	$30.00	11.39	$341.70	$341.70
8/21/2019	225062	CMC INC	126-USEPAREGION-472	8512957	610536SC	8	DEBRIS	Special Waste Misc	$30.00	12.34	$370.20	$370.20

8/21/2019	225063	CMC INC	126-USEPAREGION-472	8512958	610536SC	597	DEBRIS	Special Waste Misc	$30.00	10.23	$306.90	$306.90
8/21/2019	225066	CMC INC	126-USEPAREGION-472	8512957	610536SC	596	DEBRIS	Special Waste Misc	$30.00	11.89	$356.70	$356.70
8/21/2019	225068	CMC INC	126-USEPAREGION-472	8512961	610536SC	593	DEBRIS	Special Waste Misc	$30.00	10.93	$327.90	$327.90
8/21/2019	225070	CMC INC	126-USEPAREGION-472	8512961	610536SC	583	DEBRIS	Special Waste Misc	$30.00	8.98	$269.40	$269.40
8/21/2019	225071	CMC INC	126-USEPAREGION-472	8512962	610536SC	553	DEBRIS	Special Waste Misc	$30.00	12.03	$360.90	$360.90
8/21/2019	225072	CMC INC	126-USEPAREGION-472	8512963	610536SC	507	DEBRIS	Special Waste Misc	$30.00	12.91	$387.30	$387.30
8/21/2019	225073	CMC INC	126-USEPAREGION-472	8512963	610536SC	599	DEBRIS	Special Waste Misc	$30.00	8.86	$265.80	$265.80
8/21/2019	225074	CMC INC	126-USEPAREGION-472	8512965	610536SC	16	DEBRIS	Special Waste Misc	$30.00	11.86	$355.80	$355.80
8/21/2019	225078	CMC INC	126-USEPAREGION-472	8512965	610536SC	597	DEBRIS	Special Waste Misc	$30.00	11.06	$331.80	$331.80
8/21/2019	225079	CMC INC	126-USEPAREGION-472	8512965	610536SC	8	DEBRIS	Special Waste Misc	$30.00	9.3	$279.00	$279.00
8/21/2019	225081	CMC INC	126-USEPAREGION-472	8512965	610536SC	596	DEBRIS	Special Waste Misc	$30.00	9.32	$279.60	$279.60
8/21/2019	225082	CMC INC	126-USEPAREGION-472	8512965	610536SC	593	DEBRIS	Special Waste Misc	$30.00	10.09	$302.70	$302.70
8/21/2019	225083	CMC INC	126-USEPAREGION-472	8512965	610536SC	553	DEBRIS	Special Waste Misc	$30.00	9.23	$276.90	$276.90
8/21/2019	225084	CMC INC	126-USEPAREGION-472	8512965	610536SC	583	DEBRIS	Special Waste Misc	$30.00	8.9	$267.00	$267.00
8/21/2019	225085	CMC INC	126-USEPAREGION-472	8512965	610536SC	507	DEBRIS	Special Waste Misc	$30.00	11.86	$355.80	$355.80
8/21/2019	225086	CMC INC	126-USEPAREGION-472	8512965	610536SC	599	DEBRIS	Special Waste Misc	$30.00	9.94	$298.20	$298.20
8/21/2019	225087	CMC INC	126-USEPAREGION-472	8512965	610536SC	16	DEBRIS	Special Waste Misc	$30.00	9.32	$279.60	$279.60
Customer Total	74									752.09	$22,562.70	$22,562.70

Customer Summary Report
Criteria: 08/21/2019 12:00 AM to 08/21/2020 11:59 PM
Business Unit Name: Oakwood Landfill - S03056 (USA)
Profile: 610536SC

Ticket Date	Ticket ID	Customer	Generator	Manifest	Profile	Truck	Material	Material Description	Tons
8/21/2019	224964	CMC INC	126-USEPAREGION-472	131	610536SC	596	DEBRIS	Special Waste Misc	10.27
8/21/2019	224965	CMC INC	126-USEPAREGION-472	132	610536SC	595	DEBRIS	Special Waste Misc	9.34
8/21/2019	224969	CMC INC	126-USEPAREGION-472	8512905	610536SC	597	DEBRIS	Special Waste Misc	9.97
8/21/2019	224971	CMC INC	126-USEPAREGION-472	8512904	610536SC	553	DEBRIS	Special Waste Misc	9.48
8/21/2019	224972	CMC INC	126-USEPAREGION-472	8512906	610536SC	593	DEBRIS	Special Waste Misc	9.88
8/21/2019	224973	CMC INC	126-USEPAREGION-472	8512907	610536SC	599	DEBRIS	Special Waste Misc	10.27
8/21/2019	224974	CMC INC	126-USEPAREGION-472	8512908	610536SC	507	DEBRIS	Special Waste Misc	12.56
8/21/2019	224976	CMC INC	126-USEPAREGION-472	8512909	610536SC	16	DEBRIS	Special Waste Misc	9.97
8/21/2019	224977	CMC INC	126-USEPAREGION-472	8512910	610536SC	8	DEBRIS	Special Waste Misc	9.04
8/21/2019	224978	CMC INC	126-USEPAREGION-472	8512911	610536SC	583	DEBRIS	Special Waste Misc	9.65
8/21/2019	224981	CMC INC	126-USEPAREGION-472	8512912	610536SC	596	DEBRIS	Special Waste Misc	8.77
8/21/2019	224982	CMC INC	126-USEPAREGION-472	8512913	610536SC	595	DEBRIS	Special Waste Misc	9.93
8/21/2019	224986	CMC INC	126-USEPAREGION-472	8512914	610536SC	553	DEBRIS	Special Waste Misc	7.84
8/21/2019	224988	CMC INC	126-USEPAREGION-472	8512915	610536SC	593	DEBRIS	Special Waste Misc	10.6
8/21/2019	224989	CMC INC	126-USEPAREGION-472	8512916	610536SC	597	DEBRIS	Special Waste Misc	9.3
8/21/2019	224990	CMC INC	126-USEPAREGION-472	8512918	610536SC	507	DEBRIS	Special Waste Misc	11.22
8/21/2019	224991	CMC INC	126-USEPAREGION-472	8512917	610536SC	599	DEBRIS	Special Waste Misc	10.32
8/21/2019	224992	CMC INC	126-USEPAREGION-472	8512920	610536SC	8	DEBRIS	Special Waste Misc	9.19
8/21/2019	224993	CMC INC	126-USEPAREGION-472	8512919	610536SC	16	DEBRIS	Special Waste Misc	10.56
8/21/2019	224994	CMC INC	126-USEPAREGION-472	8512921	610536SC	583	DEBRIS	Special Waste Misc	8.48
8/21/2019	224996	CMC INC	126-USEPAREGION-472	8512922	610536SC	596	DEBRIS	Special Waste Misc	9.1
8/21/2019	224997	CMC INC	126-USEPAREGION-472	8512923	610536SC	595	DEBRIS	Special Waste Misc	9.01
8/21/2019	225000	CMC INC	126-USEPAREGION-472	8512924	610536SC	553	DEBRIS	Special Waste Misc	8.36
8/21/2019	225001	CMC INC	126-USEPAREGION-472	8512925	610536SC	597	DEBRIS	Special Waste Misc	9.98
8/21/2019	225003	CMC INC	126-USEPAREGION-472	8512927	610536SC	593	DEBRIS	Special Waste Misc	9.02
8/21/2019	225007	CMC INC	126-USEPAREGION-472	8512929	610536SC	599	DEBRIS	Special Waste Misc	8.04
8/21/2019	225010	CMC INC	126-USEPAREGION-472	8512928	610536SC	8	DEBRIS	Special Waste Misc	10.35
8/21/2019	225011	CMC INC	126-USEPAREGION-472	8512926	610536SC	507	DEBRIS	Special Waste Misc	10.65
8/21/2019	225014	CMC INC	126-USEPAREGION-472	8512930	610536SC	16	DEBRIS	Special Waste Misc	10.87
8/21/2019	225015	CMC INC	126-USEPAREGION-472	8512933	610536SC	596	DEBRIS	Special Waste Misc	10.15
8/21/2019	225016	CMC INC	126-USEPAREGION-472	8512932	610536SC	595	DEBRIS	Special Waste Misc	10.32
8/21/2019	225018	CMC INC	126-USEPAREGION-472	8512934	610536SC	583	DEBRIS	Special Waste Misc	8.97
8/21/2019	225020	CMC INC	126-USEPAREGION-472	8512934	610536SC	505	DEBRIS	Special Waste Misc	10.31
8/21/2019	225021	CMC INC	126-USEPAREGION-472	8512935	610536SC	597	DEBRIS	Special Waste Misc	9.32
8/21/2019	225022	CMC INC	126-USEPAREGION-472	8512936	610536SC	593	DEBRIS	Special Waste Misc	9.84
8/21/2019	225025	CMC INC	126-USEPAREGION-472	8512937	610536SC	599	DEBRIS	Special Waste Misc	8.83
8/21/2019	225026	CMC INC	126-USEPAREGION-472	8512938	610536SC	8	DEBRIS	Special Waste Misc	10.89
8/21/2019	225028	CMC INC	126-USEPAREGION-472	8512939	610536SC	507	DEBRIS	Special Waste Misc	12.4
8/21/2019	225029	CMC INC	126-USEPAREGION-472	8512940	610536SC	16	DEBRIS	Special Waste Misc	10.18
8/21/2019	225030	CMC INC	126-USEPAREGION-472	8512941	610536SC	596	DEBRIS	Special Waste Misc	9.67
8/21/2019	225032	CMC INC	126-USEPAREGION-472	8512942	610536SC	595	DEBRIS	Special Waste Misc	10.07
8/21/2019	225033	CMC INC	126-USEPAREGION-472	8512943	610536SC	583	DEBRIS	Special Waste Misc	10.21
8/21/2019	225035	CMC INC	126-USEPAREGION-472	8512944	610536SC	553	DEBRIS	Special Waste Misc	9.76
8/21/2019	225039	CMC INC	126-USEPAREGION-472	8512945	610536SC	593	DEBRIS	Special Waste Misc	9.56

8/21/2019	225043	CMC INC	126-USEPAREGION-472	8512946	610536SC	599	DEBRIS	Special Waste Misc	9.71
8/21/2019	225045	CMC INC	126-USEPAREGION-472	8512947	610536SC	507	DEBRIS	Special Waste Misc	13.58
8/21/2019	225046	CMC INC	126-USEPAREGION-472	8512948	610536SC	16	DEBRIS	Special Waste Misc	10.19
8/21/2019	225047	CMC INC	126-USEPAREGION-472	8512949	610536SC	8	DEBRIS	Special Waste Misc	10.43
8/21/2019	225050	CMC INC	126-USEPAREGION-472	8512950	610536SC	596	DEBRIS	Special Waste Misc	10.38
8/21/2019	225053	CMC INC	126-USEPAREGION-472	8512952	610536SC	583	DEBRIS	Special Waste Misc	10.9
8/21/2019	225054	CMC INC	126-USEPAREGION-472	8512951	610536SC	595	DEBRIS	Special Waste Misc	10.32
8/21/2019	225055	CMC INC	126-USEPAREGION-472	8512954	610536SC	593	DEBRIS	Special Waste Misc	10.88
8/21/2019	225056	CMC INC	126-USEPAREGION-472	8512953	610536SC	553	DEBRIS	Special Waste Misc	10.25
8/21/2019	225059	CMC INC	126-USEPAREGION-472	8512955	610536SC	507	DEBRIS	Special Waste Misc	12.71
8/21/2019	225060	CMC INC	126-USEPAREGION-472	8512956	610536SC	599	DEBRIS	Special Waste Misc	9.8
8/21/2019	225061	CMC INC	126-USEPAREGION-472	8512957	610536SC	16	DEBRIS	Special Waste Misc	11.39
8/21/2019	225062	CMC INC	126-USEPAREGION-472	8512957	610536SC	8	DEBRIS	Special Waste Misc	12.34
8/21/2019	225063	CMC INC	126-USEPAREGION-472	8512958	610536SC	597	DEBRIS	Special Waste Misc	10.23
8/21/2019	225066	CMC INC	126-USEPAREGION-472	8512957	610536SC	596	DEBRIS	Special Waste Misc	11.89
8/21/2019	225068	CMC INC	126-USEPAREGION-472	8512961	610536SC	593	DEBRIS	Special Waste Misc	10.93
8/21/2019	225070	CMC INC	126-USEPAREGION-472	8512961	610536SC	583	DEBRIS	Special Waste Misc	8.98
8/21/2019	225071	CMC INC	126-USEPAREGION-472	8512962	610536SC	553	DEBRIS	Special Waste Misc	12.03
8/21/2019	225072	CMC INC	126-USEPAREGION-472	8512963	610536SC	507	DEBRIS	Special Waste Misc	12.91
8/21/2019	225073	CMC INC	126-USEPAREGION-472	8512963	610536SC	599	DEBRIS	Special Waste Misc	8.86
8/21/2019	225074	CMC INC	126-USEPAREGION-472	8512965	610536SC	16	DEBRIS	Special Waste Misc	11.86
8/21/2019	225078	CMC INC	126-USEPAREGION-472	8512965	610536SC	597	DEBRIS	Special Waste Misc	11.06
8/21/2019	225079	CMC INC	126-USEPAREGION-472	8512965	610536SC	8	DEBRIS	Special Waste Misc	9.3
8/21/2019	225081	CMC INC	126-USEPAREGION-472	8512965	610536SC	596	DEBRIS	Special Waste Misc	9.32
8/21/2019	225082	CMC INC	126-USEPAREGION-472	8512965	610536SC	593	DEBRIS	Special Waste Misc	10.09
8/21/2019	225083	CMC INC	126-USEPAREGION-472	8512965	610536SC	553	DEBRIS	Special Waste Misc	9.23
8/21/2019	225084	CMC INC	126-USEPAREGION-472	8512965	610536SC	583	DEBRIS	Special Waste Misc	8.9
8/21/2019	225085	CMC INC	126-USEPAREGION-472	8512965	610536SC	507	DEBRIS	Special Waste Misc	11.86
8/21/2019	225086	CMC INC	126-USEPAREGION-472	8512965	610536SC	599	DEBRIS	Special Waste Misc	9.94
8/21/2019	225087	CMC INC	126-USEPAREGION-472	8512965	610536SC	16	DEBRIS	Special Waste Misc	9.32
Customer Total	74								752.09

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 10:39:13 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Fwd: EPA Ops Able Fire 8/24/2019

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

Begin forwarded message:

From: "Russell, Chris" <Russell.Chris@epa.gov>
Date: August 24, 2019 at 3:26:09 PM EDT
To: "reecemc@dhec.sc.gov" <reecemc@dhec.sc.gov>, "Porter, Henry" <porterhj@dhec.sc.gov>, "Tanner, Terry" <Tanner.Terry@epa.gov>
Cc: "Swanson, Courtney" <Swanson.Courtney@epa.gov>
Subject: EPA Ops Able Fire 8/24/2019

Hello All:

As of 3 p.m. 51 loads of debris have been removed from the site and taken to the WM landfill today, this equates to approximately 510 tons. 6 loads of debris were relocated on-site today (approximately 60 tons). On-site relocation procedures were halted today while we utilized the concrete pumper to perform a fire-mitigation water efficiency beta test. It's anticipated that the last 2 hours of the day will involve additional strategic placement of loads of debris on site.

Concrete pumper beta test: By all accounts, the first day of beta testing utilizing the concrete pumper was a success in helping to mitigate the fire, while simultaneously increasing the efficiency of water placement to do so. Due to the vertical, as well as horizontal reach, afforded to the team, we were able to strategically place more water directly on the areas of concern. As such, the efficiency of the water placement/usage has increased.

The planned fire-fighting additive beta test did not come to fruition today. We were successful in obtaining a tote of the additive from the Tampa Fire Department (they loaned us a tote and we will pay the vendor to replace it for them), which was delivered this morning, however, it was decided to concentrate on the concrete pumper procedures today.

As indicated earlier, the team created a dam in the ditch along Schinger Avenue today. The fire-mitigation water collected in the ditch is being actively transported to a manhole and ultimately sent to the Buford Jasper Water/Sewer Authority for treatment. BJWSA partnered with the team

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 1:11:20 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Fwd: Novacool quote

Gents:

Please see the quote below for the Novacool. I'm not a fan of the turn around time but I do think for less than $3,000 it's a viable option to try.

I will talk to Bill tomorrow and inquire about the product in Tampa, I've got some ol buddies at the Tampa FD so if he says they have some I may see if we can borrow some and then replace it.

I will keep you posted.

Terry: you will have to sign off on the costs before I pull the trigger. Although I'm fiscally conservative with the taxpayers' money, I think it's worth a try given the costs verses potential return.

Let me know.

Begin forwarded message:

From: Sales <ucfm1@aol.com>
Date: August 22, 2019 at 8:38:03 PM EDT
To: Russell.Chris@EPA.gov
Subject: Novacool quote

Hi Chris here is the quote for 100 gallons of novacool UEF in 5 gal. pails@26.00 per gallon =2600.00Plus S/H of 245.00 for a total of 2845.00 Let me know you got this thanks Bill Oke. Two to three days ship time. There is some novacool in Tampa Fl. that we may be able to get in one day I will call you in the am.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 11:29:11 AM
To: Patel, Subash <Patel.Subash@epa.gov>
Subject: Fwd: Okatie Elementary Air Monitoring

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

Begin forwarded message:

From: Russell.Chris@epa.gov
Date: August 18, 2019 at 10:12:44 PM EDT
To: David.Grissom@beaufort.k12.sc.us
Cc: Tolliver.Ronald@epa.gov, Huyser.Matthew@epa.gov
Subject: Okatie Elementary Air Monitoring

Good Evening David:

I would like to thank you and Dr. Rodriguez for helping to facilitate the air monitoring that EPA conducted earlier this evening at Okatie Elementary School. As a parent of two daughters myself, I genuinely appreciate the protective approach you all have taken during this incident.

As discussed at the conclusion of our air monitoring activities, we did not detect the presence of Hydrogen Cyanide inside or outside of Okatie Elementary School. This included all of the hallways, classrooms, cafeteria, play areas, drop-off areas, etc. that we monitored. It should be noted, that out of an abundance of caution, we incorporated duplicative monitoring activities, utilizing both our own technical contract support team, as well as utilizing our federal partners at the U. S. Coast Guard National Strike Force.

This evening's monitoring results are directly in line with EPA's other air monitoring activities thus far, all of which indicate that Hydrogen Cyanide has not been found at levels of concern outside of the debris area associated with the Able Contracting Fire.

Once again, thank you all for partnering with us to ensure that we are successfully protecting human health and the environment during this response.

Should you or Dr. Rodriguez have any comments, questions, or concerns pertaining to this email, please do not hesitate to contact me.

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 10:43:33 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Fwd: Today's Able Update

You will have do hit the link they provide for the update. You will note, it's my exact working I sent them (except I say EPA and they say "we"). Check out the pics too, my pics but great visuals for collecting run off.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

Begin forwarded message:

> **From:** "Russell, Chris" <Russell.Chris@epa.gov>
> **Date:** August 24, 2019 at 6:43:13 PM EDT
> **To:** "reecemc@dhec.sc.gov" <reecemc@dhec.sc.gov>, Henry Porter <porterhj@dhec.sc.gov>
> **Subject: Re: Today's Able Update**
>
> I believe I'm gonna need some copyright royalties on this summary and the associated visuals 😁.
>
> Great use of truthful messaging and visuals. Hopefully the continued messaging of facts via a transparent format will provide for an increased level of comfort to the citizens (and politicos).
>
> Today was a huge success and at this rate I suspect our time on site will be greatly diminished.
>
> Have a great evening and y'all holler if ya need anything.
>
> Respectfully,
>
> Chris Russell
> Federal On Scene Coordinator
> EPA Region 4 - Florida Outpost
> Cell: (850) 274-2575
>
> On Aug 24, 2019, at 6:17 PM, Reece, Myra <reecemc@dhec.sc.gov> wrote:

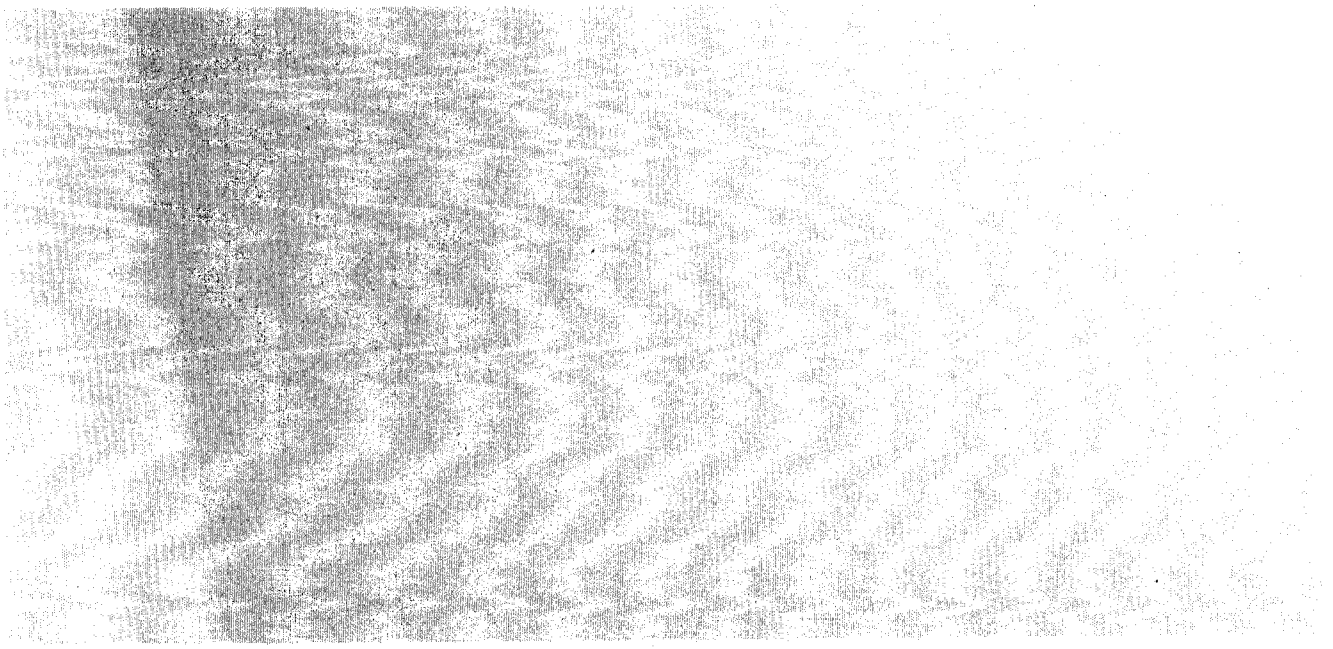
From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 7:39:28 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Fwd: Unified Command Able photo

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

Begin forwarded message:

From: "Patel, Subash" <Patel.Subash@epa.gov>
Date: August 28, 2019 at 2:51:21 PM EDT
To: "porterhj@dhec.sc.gov" <porterhj@dhec.sc.gov>, "Tanner, Terry" <Tanner.Terry@epa.gov>, "Swanson, Courtney" <Swanson.Courtney@epa.gov>, "Russell, Chris" <Russell.Chris@epa.gov>, "fedwards@jaspercountysc.gov" <fedwards@jaspercountysc.gov>, "Patel, Subash" <Patel.Subash@epa.gov>
Cc: "Webster, James" <Webster.James@epa.gov>
Subject: Unified Command Able photo



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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 1:11:38 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Jim Webster <webster.james@epa.gov>; MOORE.TONY@EPA.GOV; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: GRAPH: FW: Able PM

Good Morning All:

This graph below provides a great visual as to the progress we have made in regards to air quality with our fire-mitigation operations. We understand that there may be more spikes as we open gaps up to mitigate the fire, however, the overall positives are glaring.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reynolds, Scott <REYNOLDS@dhec.sc.gov>
Sent: Tuesday, August 27, 2019 8:24 AM
To: Frost, Keith <frostrk@dhec.sc.gov>; thompsrb@dhec.sc.gov; reecemc@dhec.sc.gov; Marshall, Frances (Fran) <marshaf2@dhec.sc.gov>; Marcus, Mike <MARCUSJM@dhec.sc.gov>; Porter, Henry <porterhj@dhec.sc.gov>; Keisler, Van <keislecv@dhec.sc.gov>; Blalock, Juli <blalocje@dhec.sc.gov>; Taylor, Monica N. <TAYLORMN@dhec.sc.gov>; Dickman, Jacquelyn S. <DICKMAJS@dhec.sc.gov>; Timmerman, Kelsey A. <timmerka@dhec.sc.gov>; Threatt, Richard <threatrl@dhec.sc.gov>; Boswell, Wendy <BOSWELWM@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>; Quina III, Gregory <quinags@dhec.sc.gov>; Boyce, Lawra <boycelc@dhec.sc.gov>; Crooks, Carol <Crookscl@DHEC.SC.GOV>; shealyrg@dhec.sc.gov; Glass, John <glassjp@dhec.sc.gov>; McAvoy, Bryan P. <mcavoybp@dhec.sc.gov>
Cc: Swanson, Courtney <Swanson.Courtney@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Pinkney, James <Pinkney.James@epa.gov>; Frederick, Tim <Frederick.Tim@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Jenkins, Brandi <Jenkins.Brandi@epa.gov>
Subject: Re: Able PM

Yesterday's 24 hour averages (Aug 26 Midnight to midnight)

Palmetto Exterminators **PM10** 6 ug/M3 (Good)

Schinger 2.5 7 ug/M3 (Good)

Okatie Elementary PM2.5 4 ug/M3 (Good)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 17, 2019 1:19:05 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Negron, Jose <Negron.Jose@epa.gov>; Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Miller, Angela <Miller.Angela@epa.gov>; Hill, Franklin <Hill.Franklin@epa.gov>
Subject: Humor Helps In ER's (and grammar counts)
Attachments: IMG_0606.PNG (136.44 KB), ATT00001.txt (150 Bytes)

2nd headline: apparently we are putting out the fire chief◆?◆?

Armstrong, Kathy

From: Russell, Chris
Sent: Saturday, August 17, 2019 9:19 AM
To: Huyser, Matthew; Negron, Jose; Tolliver, Ronald; Miller, Angela; Hill, Franklin
Subject: Humor Helps In ER's (and grammar counts)
Attachments: IMG_0606.PNG; ATT00001.txt

2nd headline: apparently we are putting out the fire chief😬

County officials: SC trash fire not a threat to area | WCIV

14 hours ago · Beaufort County officials said the Able Contracting fire is not a threat to the area. According to officials ...

The State › article233762807

Environmental agency says putting out fire chief goal in SC | The State

6 days ago · Agency officials said they will consider fines against Able Contracting, but their chief goal for now is to ...

Facebook › SCDHEC › posts

SC DHEC - In response to the fire at the Able Contracting... | Facebook

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 7:51:08 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; THenry5@WM.com
CC: Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: Meeting W/Waste Management Monday

Good Afternoon Everyone:

As EPA and SCDHEC discussed earlier this week, it would be very beneficial if we could minimize the costs to the taxpayers relative to the disposal of the debris from the Able Contracting Fire response. In turn, Tim Henry with Waste Management has graciously agreed to attend a meeting to discuss potential options, etc that will be taking place this coming Monday (August 26th) at 10:30 a.m. here at the EPA "Office" on Schinger. I understand that some folks may have to call in, so we will work to have a conference call line set up. In the interim, please do the following:

1. Respond to this email indicating you will either be at the meeting or calling in, as well as any of your staff/colleagues who may be joining.
2. Be thinking about how you and the entity you represent envision this process going forward, i.e. how much waste you believe will be left behind – taken away, etc etc.
3. Naturally, be thinking about anything else you think will be beneficial to all of the entities coming to the table.

Be what may or may not come out of this meeting, one fact will remain true, both SCDHEC and Waste Management have been great partners thus far in addressing the disposal of the debris related to this emergency.

As always, please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

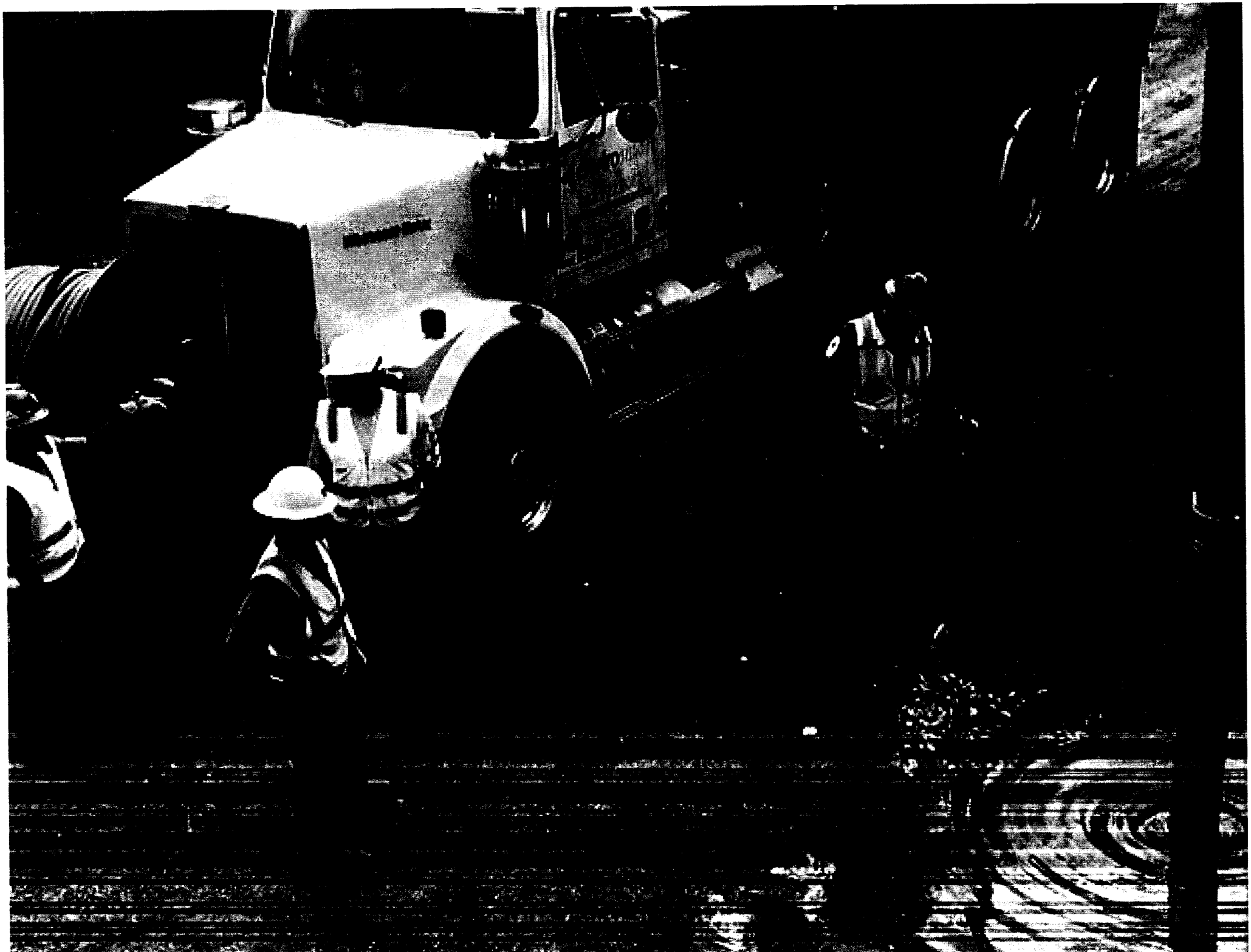
From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 6:53:13 PM
To: reecemc@dhec.sc.gov; Henry Porter <porterhj@dhec.sc.gov>
CC: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: Mitigation
Attachments: IMG_0042.JPG (167.98 KB), ATT00001.txt (6 Bytes), IMG_0043.JPG (186.66 KB), ATT00002.txt (6 Bytes), IMG_0044.JPG (170.23 KB), ATT00003.txt (6 Bytes), IMG_0045.JPG (168.18 KB), ATT00004.txt (6 Bytes), IMG_0046.JPG (165.19 KB), ATT00005.txt (123 Bytes)

Hello Myra and Henry:

Below are some pics of an additional strategy EPA implemented today to help further reduce the off-site migration of fire mitigation water. The silt screen will be kept in place, however the dam will be removed at the end of the day to ensure the road does not flood if a storm occurs.

We are using a Vac truck to pull directly from the ditch and the water is transported to a nearby manhole so that it can be treated at BJWSA. This procedure has increased the amount of water we are able to recover.

More photos from today will be forthcoming and the summary you requested will be forthcoming too.



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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 17, 2019 1:47:35 AM
To: Bates, Lloyd <Bates.Lloyd@epa.gov>
Subject: Monty: Fwd: OSC availability to mobilize to Able Contracting

Hey Monty:

Can you get this added to my PPlus account or is there a means by which I can do it myself.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

Begin forwarded message:

> **From:** "Moore, Tony" <moore.tony@epa.gov>
> **Date:** August 15, 2019 at 10:02:05 PM EDT
> **To:** R4 ERRB <R4_ERRB@epa.gov>
> **Subject: Re: OSC availability to mobilize to Able Contracting**
>
> Chris Russell is mobilizing tomorrow. Thank you Chris
>
> Sent from my iPhone
>
>> On Aug 15, 2019, at 8:01 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>>
>> Circumstances have changed at Able, who is available to respond to the incident as early as tomorrow. Matt has requested assistance. R1 has been deployed to another ER. Any help?
>>
>> Sent from my iPhone

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 11:58:25 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; cmcrickh@aol.com
Subject: Morning Coffee
Attachments: IMG_0013.MOV (2.8 MB), ATT00001.txt (123 Bytes)

Armstrong, Kathy

From: Russell, Chris
Sent: Saturday, August 24, 2019 7:58 AM
To: Tanner, Terry; Huyser, Matthew; Spurlin, Steve; Byrd, Terrence; Swanson, Courtney; cmcrickh@aol.com
Subject: Morning Coffee
Attachments: IMG_0013.MOV; ATT00001.txt

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 2:12:45 AM
To: David.Grissom@beaufort.k12.sc.us
CC: Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Okatie Elementary Air Monitoring

Good Evening David:

I would like to thank you and Dr. Rodriguez for helping to facilitate the air monitoring that EPA conducted earlier this evening at Okatie Elementary School. As a parent of two daughters myself, I genuinely appreciate the protective approach you all have taken during this incident.

As discussed at the conclusion of our air monitoring activities, we did not detect the presence of Hydrogen Cyanide inside or outside of Okatie Elementary School. This included all of the hallways, classrooms, cafeteria, play areas, drop-off areas, etc. that we monitored. It should be noted, that out of an abundance of caution, we incorporated duplicative monitoring activities, utilizing both our own technical contract support team, as well as utilizing our federal partners at the U. S. Coast Guard National Strike Force.

This evening's monitoring results are directly in line with EPA's other air monitoring activities thus far, all of which indicate that Hydrogen Cyanide has not been found at levels of concern outside of the debris area associated with the Able Contracting Fire.

Once again, thank you all for partnering with us to ensure that we are successfully protecting human health and the environment during this response.

Should you or Dr. Rodriguez have any comments, questions, or concerns pertaining to this email, please do not hesitate to contact me.

Have a great evening.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 21, 2019 10:13:23 PM
To: Rick Hollingsworth <cmcrickh@aol.com>; Swanson, Courtney <Swanson.Courtney@epa.gov>
CC: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: Operations For 8/22 - 8/24

Hey Rick and Courtney:

As discussed today, and to ensure clarity in regards to our path forward during the rest of this current operational period, please find our operational plans for the next couple of days:

Thursday 8/22:

Utilize a maximum of 2 dump trucks to move debris from the center to SW portion of the debris pile over to the "gap". We should concentrate on moving eastward deeper into the pile to gain access to ignited areas and provide more clearance away from the Santee Cooper right of way, specifically targeting the area directly in front of the "recycling-seperator-conveyor" area (the blue equipment) south over to the SW corner.

Ensure that we move debris away from the "fire column" located in front of the recycling-seperator-conveyor area (taking the debris pile close to the shape it was Tuesday evening and upon work this morning), so that we can utilize the concrete pump beta test Friday and Saturday.

Construct and implement as soon as possible tomorrow an air curtain system to be utilized in the ditch south of the Site. These operations should be coordinated closely with Courtney.

Construct and implement 4 low-volume smoke suppression systems that can be utilized overnight. Envisioned proto-types should be discussed and presented to Courtney before actual construction.

Contact the local WWTP to see what samples need to be taken to allow for disposing of fire mitigation run-off in their WWTP. Inquire about pricing as well.

Implement the worker air-sampling program (EPA-START will do this).

Continue to work the pile, addressing hotspots as needed, while ensuring that we are mitigating smoke plumes and run-off water to the extent practicable.

Friday 8/23 & Saturday 8/24:

Incorporate the beta-test of utilizing the concrete pumper to maximize the efficiency of water utilization in mitigating the fire.

Continue to work the pile, addressing hotspots as needed, while ensuring that we are mitigating smoke plumes and run-off water to the extent practicable.

With all operations, ensure that safety is a priority and understand that change is inevitable, there's no single set plan for dealing with this complex situation.

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 3:25:05 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: P2
Attachments: IMG_0058.JPG (2.61 MB), ATT00001.txt (6 Bytes), IMG_0057.JPG (2.73 MB), ATT00002.txt (6 Bytes), IMG_0056.JPG (2.81 MB), ATT00003.txt (6 Bytes), IMG_0048.JPG (2.75 MB), ATT00004.txt (6 Bytes), IMG_0047.JPG (3.02 MB), ATT00005.txt (123 Bytes)

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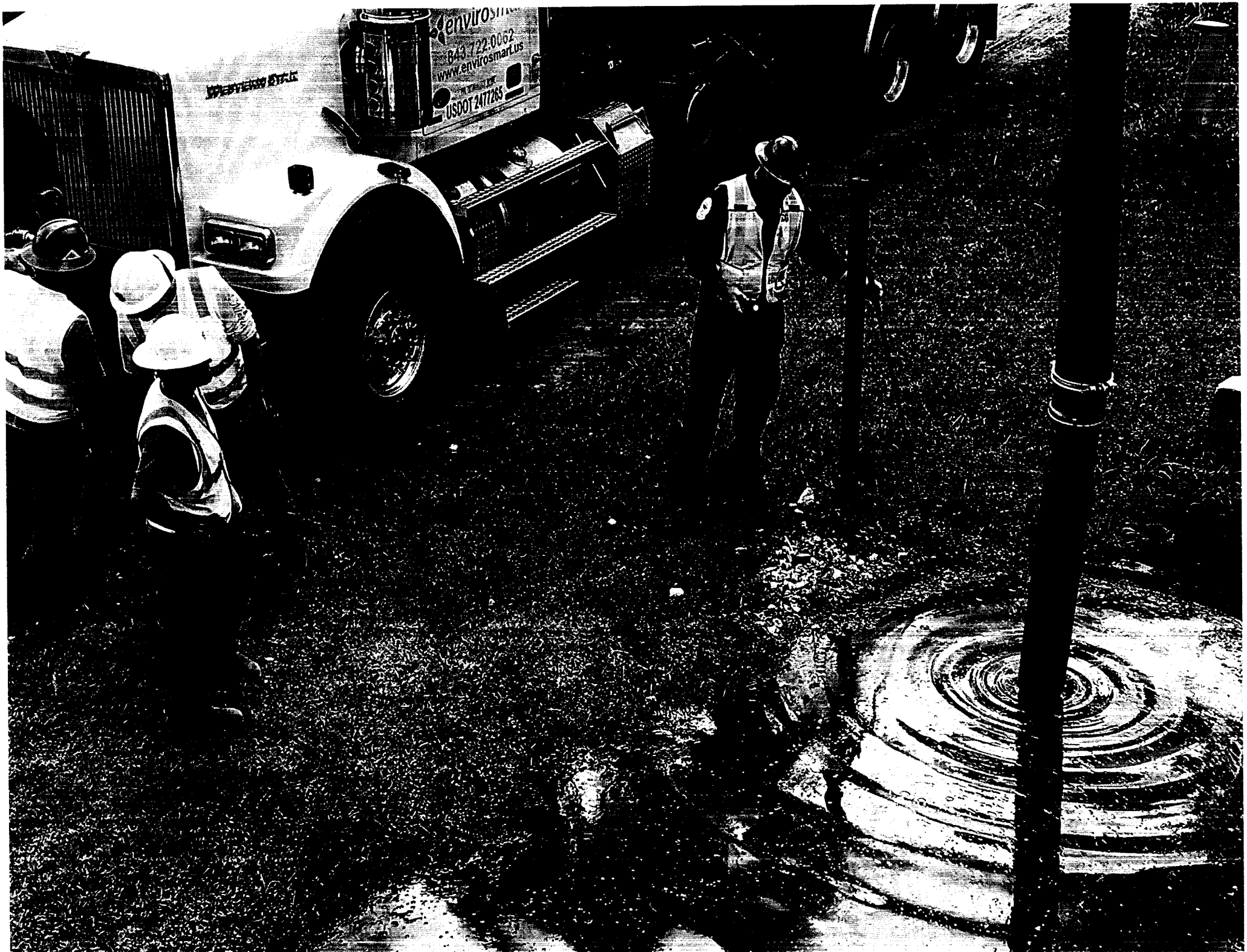
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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 3:25:30 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: P3
Attachments: IMG_0037.JPG (3.2 MB), ATT00001.txt (6 Bytes), IMG_0036.JPG (3.53 MB), ATT00002.txt (6 Bytes), IMG_0027.JPG (1.54 MB), ATT00003.txt (6 Bytes), IMG_0024.JPG (1.46 MB), ATT00004.txt (6 Bytes), IMG_0023.JPG (1.23 MB), ATT00005.txt (123 Bytes)

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 3:26:55 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: P4
Attachments: IMG_0019.JPG (2.15 MB), ATT00001.txt (6 Bytes), IMG_0012.JPG (1.69 MB), ATT00002.txt (6 Bytes), IMG_0032.JPG (4.79 MB), ATT00003.txt (6 Bytes), IMG_0043.JPG (3.44 MB), ATT00004.txt (6 Bytes), IMG_0057.JPG (2.73 MB), ATT00005.txt (123 Bytes)

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 3:24:17 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Pics
Attachments: IMG_0082.JPG (4.07 MB), ATT00001.txt (6 Bytes), IMG_0080.JPG (1.58 MB), ATT00002.txt (6 Bytes), IMG_0079.JPG (2.04 MB), ATT00003.txt (6 Bytes), IMG_0078.JPG (2.21 MB), ATT00004.txt (6 Bytes), IMG_0077.JPG (1.98 MB), ATT00005.txt (123 Bytes)

DOOSAN

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United Rentals
SK330-8

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 5:22:25 PM
To: Henry, Timothy <thenry5@wm.com>
Subject: RE: Able Fire Debris Disposal Discussion

Thanks Tim, we appreciate you trying to knock it out quickly.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Henry, Timothy <thenry5@wm.com>
Sent: Monday, August 26, 2019 1:19 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: Able Fire Debris Disposal Discussion

Chris

We can't get everyone together until close to 2. Hope to meet your deadline.

Tim Henry
Sr. Industrial Account Manager
South Carolina
Waste Management
843 409-5472

On Aug 25, 2019, at 11:26 AM, Russell, Chris <Russell.Chris@epa.gov> wrote:

> Good Morning Everyone:
>
> Tomorrow's Debris Disposal Meeting with Waste Management and our response partners will take place at 10:30 here at the EPA's Office off of Schinger. We will be meeting in the conference room inside of the office complex we have been occupying (Myra/Henry: for your team it's the same place we have been meeting). Tim, the office is in the same parking lot where you will see the EPA Emergency Response Mobile Command Post located.
>
> For those folks that need to conference call in, the number is: 202-991-0477 Pin: (b)(6) Personal Privacy
>
> Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.
>
> Have a great Sunday.
>
> Chris Russell

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 12:50:56 PM
To: Scott Reynolds <reynolds@dhec.sc.gov>
Subject: Re: 08/24 drone flight

Hey Scott:

You are correct, we are not flying UAV's. Santee Cooper has a lead lineman out here ensuring their power lines aren't impacted. They fly a UAV several times a day and were kind enough to provide the shots.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 8:30 AM, Reynolds, Scott <REYNOLDS@dhec.sc.gov> wrote:

> Thanks for the images. It appears you were taking shots of a pilot's controller screen- and I didn't think EPA flew UAVs. If not y'all, what organization was flying?
> I've heard that the county and the DHEC contractor have flown the site and several TV stations have flown adjacent. If needed, it's good to know where images may be.

Scott Reynolds
Senior Scientist
S.C. Dept. of Health & Environmental Control
Office: (803) 898-3305

dhec

> **From:** "Russell, Chris" <Russell.Chris@epa.gov>
> **Date:** August 24, 2019 at 2:55:57 PM EDT
> **To:** "reecemc@dhec.sc.gov" <reecemc@dhec.sc.gov>, "Tanner, Terry" <Tanner.Terry@
> **Subject: Drone photos at the beginning of the day.**
>
> *** Caution. This is an EXTERNAL email. DO NOT open attachments or click links from

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 20, 2019 10:17:55 PM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: 610536SC 08.20.19 CSR and Tonnage report

Perfect!!! Thanks Rick and team.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

On Aug 20, 2019, at 5:47 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:

Hey all!

This is today's 8-20-19 tonnage report. The trucking costs for today is $11,200. Please let me know if you need anything else. Thanks

Sent from my iPhone

Begin forwarded message:

From: "Thomas, Teresa" <tthoma32@wm.com>
Date: August 20, 2019 at 5:22:58 PM EDT
To: 'Kevin Hitron' <kevin@cmcenvironment.com>, 'Rick Hollingsworth' <cmcrickh@aol.com>
Cc: "Henry, Timothy" <thenry5@wm.com>
Subject: 610536SC 08.20.19 CSR and Tonnage report

Good Afternoon,

Please find attached the 610536SC CSR and tonnage report for 08.20.19.
If you have any questions or concerns, let me know. Have a nice evening.

Thanks,
Terri
Teresa "Terri" Thomas
Industrial Technical Service Representative

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 21, 2019 10:15:22 PM
To: Rick Hollingsworth <cmcrickh@aol.com>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Subject: RE: 610536SC 08.21.19 CSR and Tonnage Report

Thanks a million Rick....

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent: Wednesday, August 21, 2019 5:58 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Subject: Fwd: 610536SC 08.21.19 CSR and Tonnage Report

Here we go gentlemen. The tonnage report is attached. The hauling fee for today is $11,040.

Sent from my iPhone

Begin forwarded message:

> **From:** "Thomas, Teresa" <tthoma32@wm.com>
> **Date:** August 21, 2019 at 5:44:34 PM EDT
> **To:** 'Kevin Hitron' <kevin@cmcenvironment.com>, 'Rick Hollingsworth' <cmcrickh@aol.com>
> **Cc:** "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>
> **Subject: 610536SC 08.21.19 CSR and Tonnage Report**
>
> Good Afternoon,
>
> Please find attached the 610536SC CSR and tonnage report for 08.21.19. If you have any questions or concerns, let me know. Have a nice evening.
>
> Thanks,
> Terri
> **Teresa "Terri" Thomas**
> Industrial Technical Service Representative
> Emelle Technical Service Center
> tthoma32@wm.com
>
> **Waste Management**

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent on: Thursday, August 22, 2019 12:25:38 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: 610536SC 08.21.19 CSR and Tonnage Report

Make it 2!

Thank You,
Rick Hollingsworth
CMC Inc. Senior Project Manager

Cell- 859-333-3644
email- rick@cmcenvironment.com

Main Office:
CMC Inc.
1151 Jessamine Station Rd.
Nicholasville, KY 40356
office- 1-888- 854- 3732
fax- 859- 885-4688

-----Original Message-----
From: Russell, Chris <Russell.Chris@epa.gov>
To: Rick Hollingsworth <cmcrickh@aol.com>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Sent: Wed, Aug 21, 2019 6:15 pm
Subject: RE: 610536SC 08.21.19 CSR and Tonnage Report

Thanks a million Rick....

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Rick Hollingsworth <cmcrickh@aol.com>
Sent: Wednesday, August 21, 2019 5:58 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Subject: Fwd: 610536SC 08.21.19 CSR and Tonnage Report

Here we go gentlemen. The tonnage report is attached. The hauling fee for today is (b)(4) CBI [redacted]

Sent from my iPhone

Begin forwarded message:

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 11:38:54 PM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Hitman <kevin@cmcenvironment.com>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: 610536SC 08.27.19 CSR and Tonnage report

Awesome numbers brotha.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 27, 2019, at 6:45 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:

Good day gents,

Today's tonnage report is attached
(b)(4) to WM for (b)(4) tons = $16,134.90
(b)(4) CBI went to the gap
Trucking = (b)(4) CBI
Total T&D for the day = (b)(4) CBI
Vac truck (b)(4) CBI = (b)(4) CBI

Sent from my iPhone

Begin forwarded message:

From: "Thomas, Teresa" <tthoma32@wm.com>
Date: August 27, 2019 at 5:52:11 PM EDT
To: Kevin Hitron <kevin@cmcenvironment.com>, Rick Hollingsworth <cmcrickh@aol.com>
Cc: "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>
Subject: 610536SC 08.27.19 CSR and Tonnage report

Good Afternoon,

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 10:50:45 PM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: 610536SCS 08.23.19 CSR and Tonnage Report

You are spot on Rick, it was a great day of progress. The beta testing of the concrete pumped should allow for an exciting day tomorrow as well.

We appreciate the effort and see the progress the team is making, I hope the public and politicos do too.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 23, 2019, at 6:43 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:

> Good evening gents! Hell of a day!
> The disposal totals are attached.
> We ran (b)(4) CBI(b mostly to the landfill and alternated a third truck to the gap. Total of (b)(4) CBI loads to the gap!
> Trucking total is (b)(4) CBI
>
> Vac truck loaded out and discharge (b)(4) CBI @ (b)(4) CBI = (b)(4) CBI
>
> Let me know if you need anything else.
>
> The Novacool will be here at 7am
>
> Sent from my iPhone
>
> Begin forwarded message:
>
>> **From:** "Thomas, Teresa" <tthoma32@wm.com>
>> **Date:** August 23, 2019 at 4:57:02 PM EDT
>> **To:** Kevin Hitron <kevin@cmcenvironment.com>, Rick Hollingsworth <cmcrickh@aol.com>
>> **Cc:** "Henry, Timothy" <thenry5@wm.com>, "Smith, Trarai" <tsmith44@wm.com>

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 11:11:09 PM
To: Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: 610536SCS 08.23.19 CSR and Tonnage Report

I really am a positive fella, I just don't have too much for folks who are less than honest and who act like buttholes, we've seen plenty of those lately and that may have skewed my bubbly demeanor😎

Drive safe brotha

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 23, 2019, at 6:58 PM, Patel, Subash <Patel.Subash@epa.gov> wrote:

> That's a motivating email. Nice touch.
>
> Subash C. Patel, MPH
> On-Scene Coordinator
> US EPA R4 - Atlanta
> (404)229-9495
>
> On Aug 23, 2019, at 6:50 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>
>> You are spot on Rick, it was a great day of progress. The beta testing of the concrete pumped should allow for an exciting day tomorrow as well.
>>
>> We appreciate the effort and see the progress the team is making, I hope the public and politicos do too.
>>
>> Respectfully,
>>
>> Chris Russell
>> Federal On Scene Coordinator
>> EPA Region 4 - Florida Outpost
>> Cell: (850) 274-2575
>>
>> On Aug 23, 2019, at 6:43 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 8:52:43 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: RE: Able - Novacool ORD

Ten Four.

Their dealer for the east coast has been somewhat slow to close the loop on when we could get some, how much it will cost, etc. He's supposed to send me some information later this evening. I've reached out to some other fire departments to see if they have some we could utilize, we will see how that goes.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Huyser, Matthew <Huyser.Matthew@epa.gov>
Sent: Thursday, August 22, 2019 4:36 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Able - Novacool ORD

Forwarded below is an initial review from ORD. I have other information coming back from HQ EOC in an hour.

In summary it's likely that they're telling the truth that there are no PFOA/PFAS in the product but the descriptions mean that there are other constituents not named which could be Gen-X - something that Glenn Adams knows a little about or at least I've heard him mention it.

Suffice to say that there are no critical red flags.

In talking with R9 and CalRecycle the use of foam or surfactants is going to become inevitable, unavoidable and necessary. But we should not take the manufacturer's word at how readily biodegradable it is.

Matthew J. Huyser, PE - On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response Removal and Prevention Branch (ERRPB)
office: **404-562-8934** | cell: **678-427-8829** | fax:**404-562-8699**
epaosc.org

Begin forwarded message:

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 20, 2019 8:40:12 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Re: Able - Summary Report NIGHT 8/19-8/20/2019

Nice narrative on the day summary in regards to cross sensitivity.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

On Aug 20, 2019, at 4:18 PM, Huyser, Matthew <Huyser.Matthew@epa.gov> wrote:

Attached is the air monitoring summary report for NIGHT 8/19-8/20/2019

Particulate readings at the EPA MCP and Sun City reported moderate air quality with average readings of 12.2 ug/m3 and 13.6 ug/m3 respectively which are slightly above the 12.0 ug/m3 threshold for the "good" AQI category. Particulates at Grace Coastal Church reported moderate air quality at an average of 14.4 ug/m3 and a peak of over 120 ug/m3 which occurred as part of a sharp increase of PM2.5 beginning at approximately 6AM. Increases in PM2.5 of similar slopes were also observed at this time at Short Cut Road and Peacock Collision.

Particulates at all other stations reported good air quality (≤12 ug/m3) for the period.

HCN averages inside the Site fence line did not exceed 0.5 ppm for the period. VOCs, H2S, and CO averages were also low.

No detections were reported outside the Site fence line at Forrest Concrete of HCN, VOC, H2S, CO or LEL.

AreaRAE Pros were down for approximately 1 hour from midnight to 1AM.

Matthew J. Huyser, PE - On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response Removal and Prevention Branch (ERRPB)
office: **404-562-8934** | cell: **678-427-8829** | fax: **404-562-8699**
epaosc.org

From: Huyser, Matthew
Sent: Tuesday, August 20, 2019 12:13 AM

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 29, 2019 1:16:27 PM
To: Franco, Benjamin <Franco.Benjamin@epa.gov>
Subject: RE: Able Contracting Fire Daily Conference Call

I didn't call in as I've mobed off the response. Should you need me to call in on other calls just let me know.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Appointment-----
From: Franco, Benjamin <Franco.Benjamin@epa.gov>
Sent: Thursday, August 29, 2019 9:01 AM
To: Huyser, Matthew; Webster, James; Moore, Tony; Russell, Chris; Jenkins, Brandi; Miller, Angela; Pinkney, James; Tolliver, Ronald; Tanner, Terry; Patel, Subash
Cc: Spurlin, Steve; Byrd, Terrence; Andrews, David; Bates, Lloyd; Negron, Jose; Jardine, Rick; Johnson, Dora Ann; Jones, Katrina
Subject: Able Contracting Fire Daily Conference Call
When: Tuesday, August 27, 2019 9:00 AM to Friday, August 30, 2019 10:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where:

Call-in #: 202-991-0477
Conference #: [redacted] Rick line)
Quick Dial: 202-991-0477,[redacted]
Leader PIN: [redacted]

Agenda
- Opening Remarks (Webster/Moore)
- Operations Update (Source Removal/Firefighting/Relocation/Health and Safety)
- Air Monitoring Update (Site/Community)
- Outreach Update (News/Community/Legislative/DHEC)
- Pressing Issues
- Resource Request Needs
  Personnel switch out (coming in and coming out)
  Position requests
  Budget (Burn Rate)
- Action Items Review

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 7:34:35 PM
To: Stewart, R. Gary <stewarrg@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: RE: Able Contracting Site Prelim Report for Lot UH21084

Hey Gary:

Unfortunately I didn't see any attachments.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Message-----
From: Stewart, R. Gary <stewarrg@dhec.sc.gov>
Sent: Monday, August 26, 2019 3:21 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Subject: Fw: Able Contracting Site Prelim Report for Lot UH21084

Fyi...preliminary results for some water samples collected last week

R. Gary Stewart, P.E.
Manager
State Remediation Section
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-0778

Connect: www.scdhec.gov Facebook Twitter

From: Porter, Henry <porterhj@dhec.sc.gov>
Sent: Monday, August 26, 2019 2:59:28 PM
To: Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Able Contracting Site Prelim Report for Lot UH21084

Please share these with Terry & Chris too.

Sent from my iPhone

On Aug 26, 2019, at 2:55 PM, Stewart, R. Gary <stewarrg@dhec.sc.gov<mailto:stewarrg@dhec.sc.gov>> wrote:

Please forward to anyone else who should see this data. Thanks.

R. Gary Stewart, P.E.
Manager
State Remediation Section
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-0778

Connect: www.scdhec.gov<http://www.scdhec.gov> Facebook Twitter

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 6:50:55 PM
To: Porter, Henry <porterhj@dhec.sc.gov>
CC: reecemc@dhec.sc.gov; Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Re: Able Fire Midday Ops

Hey Henry,

If you would like, we will pull together a summary and shoot it over before 4, we will address air in the summary.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

> On Aug 26, 2019, at 2:47 PM, Porter, Henry <porterhj@dhec.sc.gov> wrote:
>
> Chris,
>
> Thanks for sending the update. Can we make a general statement that the air quality is good? Particularly for Sun City & the apartments.
>
> Henry
>
> Sent from my iPhone
>
>> On Aug 26, 2019, at 2:12 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>>
>> *** Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
>>
>> Hello All:
>>
>> Just a quick midday update: 71 loads have been strategically relocated on site today thus far (700+ tons). 44 loads have been taken off site (approx 450 tons). We have asked the operators to concentrate on packing in the waste to increase tonnage per load. With the reduction in water application our loads are less wet and lighter, hence the emphasis on really packing them in.
>>
>> Fire mitigation water is still being captured to the extent practical and the water is being taken to a local sanitary sewer system for disposal. Air sparging of the ditch continues as well.
>>
>> All air Monitoring results have shown no issues thus far.
>>
>> Still no work stoppage injuries and further good news, as you can tell from the photos below, no smoke plumes. We aren't saying the fire is out, but we are most definitely headed in the right direction. (**please note the concrete pumper NOT flowing water, this is in line with our strategic plan to be as efficient as possible when applying water).
>>
>> Please do not hesitate to contact me with any questions, etc you may have.
>>
>> <IMG 0096.JPG>

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 12:36:06 PM
To: Reynolds, Scott <REYNOLDS@dhec.sc.gov>
Subject: RE: Able PM

Good Morning Scott:

I will be leaving the response this afternoon, in turn, please feel free to remove me from this distribution list. Thanks for keeping me informed during my tenure here.

Have a great week.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reynolds, Scott <REYNOLDS@dhec.sc.gov>
Sent: Tuesday, August 27, 2019 8:24 AM
To: Frost, Keith <frostrk@dhec.sc.gov>; thompsrb@dhec.sc.gov; reecemc@dhec.sc.gov; Marshall, Frances (Fran) <marshaf2@dhec.sc.gov>; Marcus, Mike <MARCUSJM@dhec.sc.gov>; Porter, Henry <porterhj@dhec.sc.gov>; Keisler, Van <keislecv@dhec.sc.gov>; Blalock, Juli <blalocje@dhec.sc.gov>; Taylor, Monica N. <TAYLORMN@dhec.sc.gov>; Dickman, Jacquelyn S. <DICKMAJS@dhec.sc.gov>; Timmerman, Kelsey A. <timmerka@dhec.sc.gov>; Threatt, Richard <threatrl@dhec.sc.gov>; Boswell, Wendy <BOSWELWM@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>; Quina III, Gregory <quinags@dhec.sc.gov>; Boyce, Lawra <boycelc@dhec.sc.gov>; Crooks, Carol <Crookscl@DHEC.SC.GOV>; shealyrg@dhec.sc.gov; Glass, John <glassjp@dhec.sc.gov>; McAvoy, Bryan P. <mcavoybp@dhec.sc.gov>
Cc: Swanson, Courtney <Swanson.Courtney@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>; Pinkney, James <Pinkney.James@epa.gov>; Frederick, Tim <Frederick.Tim@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Jenkins, Brandi <Jenkins.Brandi@epa.gov>
Subject: Re: Able PM

Yesterday's 24 hour averages (Aug 26 Midnight to midnight)

Palmetto Exterminators **PM10** 6 ug/M3 (Good)

Schinger 2.5 7 ug/M3 (Good)

Okatie Elementary PM2.5 4 ug/M3 (Good)

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 4:41:45 PM
To: Reece, Myra <reecemc@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Huyser, Matthew <Huyser.Matthew@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: RE: Able Runoff

Good Afternoon Myra & Terry:

(b)(6) did come to our location Wednesday morning while we were having an operations meeting before work started for the day. He was visibly upset and expressed several concerns to Matt Huyser. Given (b)(6) visible angst, I volunteered to go to (b)(6) property with him to address his concerns. In turn, myself and another EPA colleague went to the JS Site with (b)(6) and surveyed the area. My recollection of the facts as described by (b)(6) in his email are different. I feel confident that the other EPA individual present at the JS Site would also have a different recollection of the facts as described by (b)(6) This would not be due to collusion of Agency personnel, but rather due to a collusion of the facts that took place.

As we have openly communicated continuously, as with the previous fire-fighting operations conducted by others at this site, we will not be able to collect 100% of our fire-mitigation water, however we will collect and treat/reuse as much as we can to the extent practicable. Although the odor noted down near the JS Site couldn't be differentiated between what was present in the air verses (b)(6) assumption of the water being the genesis of the odor, the EPA team did take his concerns seriously. In turn, we installed the air sparging system to help with potential H2S odors, as well as allowing for increased dissolved oxygen present in the water. Likewise, we were also successful in partnering with BJWSA to gain permission to ship fire-mitigation water to their treatment facility, which has decreased the amount of off-site migration of fire-mitigation water.

I hope this email will provide more clarity to the events presented by (b)(6) Naturally, should anyone have any comments, questions, or concerns, pertaining to this matter, they should feel free to contact me.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reece, Myra <reecemc@dhec.sc.gov>
Sent: Sunday, August 25, 2019 11:53 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Able Runoff

Sent from my iPhone

Begin forwarded message:

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 8:02:40 PM
To: Reece, Myra <reecemc@dhec.sc.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: RE: Able runoff.

Hey Myra: I'm sorry, our emails must have been passing via the net. I think the summary on our water collection activities should be concise enough to use (IMHO). Given the coloration of the water in that pic, which was influenced by the soil and not the fire, I would not use that pic on your summary, maybe just use yesterday's if you need one.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Message-----
From: Reece, Myra <reecemc@dhec.sc.gov>
Sent: Sunday, August 25, 2019 3:57 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: Able runoff.

Chris: can you add this info to ur summary?

Sent from my iPhone

> On Aug 25, 2019, at 3:41 PM, Tanner, Terry <Tanner.Terry@epa.gov> wrote:
>
> *** Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
>
> Myra,
>
> We have constructed two collection areas to capture the runoff during our daily operations. A vac truck makes a trip between the two collection areas collecting the runoff for disposal. This is a pic of the northernmost collection area.
>
>
> <IMG_0122.jpg>
>
>
> Sent from my iPhone

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From: Jones, Chris <chris.jones@tetratech.com>
Sent on: Wednesday, August 21, 2019 10:51:58 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>
CC: Russell, Chris <Russell.Chris@epa.gov>
Subject: RE: Air sampling plan

Courtney,

Due to the plethrea of activities on site, I requested reachback support for preparation of the sampling plan. Hes been working to get me a draft today but he said it would be a few more hrs. Below are a few of the key points that will be included in the plan.

- We are conducting air sampling to determine if evacuated residents can return to their homes. Two locations will be placed near the debris pile and downwind to be biased high. One location will be south of the fire, adjacent to local businesses; and the final location will be in a residential neighborhood to the east of the fire.
- Sampling will be conducted using summa 6 liter canisters with 24-hr regulators at all four locations. At the moment, analysis will include VOCs (TO-15), HCN, and H_2S. We may end up adding SO2 so leave some wiggle room to add additional analysis in the field, as needed.
- Upon completion of the above sampling, a second round of sampling will occur. The business location and residential location will remain the same (as determined in the field); however, the downgradient locations will be adjusted, depending on weather conditions. Asbestos samples will be collocated with the downwind locations during the second round.
- Additionally, two air samples will be collected from the cabs of excavators working on the pile. These will have 8-hr regulators and will be used for both working protection and possibly as a "worst case scenario". Same analysis as previously mentioned.
- We need to include some language regarding data quality objectives.
- Depending on results, EPA may seek guidance from internal sources (scientific support group) and outside sources (ATSDR, SCDHEC).

I'll provide a draft version right after I get a chance to review it and likely provide a little more input.

Chris

From: Swanson, Courtney [mailto:Swanson.Courtney@epa.gov]
Sent: Wednesday, August 21, 2019 6:09 PM
To: Jones, Chris <chris.jones@tetratech.com>
Cc: Russell, Chris <Russell.chris@epa.gov>
Subject: Re: Air sampling plan

⚠ **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. ⚠

We would appreciate having something in writing tonight, even if it's very brief and a "work in progress".

From: Jones, Chris <chris.jones@tetratech.com>
Sent: Wednesday, August 21, 2019 5:55:11 PM

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 1:42:40 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: RE: Arm chair Spurlin

We aren't "sampling" at night, we are doing monitoring. The dynamics of the site necessitate an abundance of caution due to the variabilities that take place with the fire. START/USCG support at night are to ensure the equipment operates properly (we've had issues with equipment). It was our goal to get folks off of the night shift (1 USCG and 1 START), but we are making changes to the pile during operations that allow for variabilities that require us to keep the crew going currently.

Dat make since QB Shake N Bake ◆?◆?

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Message-----
From: Spurlin, Steve <Spurlin.Steve@epa.gov>
Sent: Friday, August 23, 2019 9:37 AM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Cc: Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Arm chair Spurlin

If the residents are relocated and the data has been good, why do we sample at night?

Sent from my iPhone

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 1:30:03 PM
To: Ziegler, David <ziegledm@dhec.sc.gov>
Subject: RE: Beta test

Good Morning David:

The concrete pumper is working like a charm buddy. Your idea was a homerun brotha.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Ziegler, David <ziegledm@dhec.sc.gov>
Sent: Monday, August 26, 2019 9:29 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Beta test

Chris,

How did the test of the concrete pumper go over the weekend?

David Ziegler
Environmental Health Manager
S.C. Dept. of Health & Environmental Control
Office: (803) 896-7646
Mobile: (803) 240-1818

Fax: (803) 896-4110
Connect: www.scdhec.gov Facebook Twitter

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 2:48:40 PM
To: Sales <ucfm1@aol.com>; Kevin Hitron <kevin@cmcenvironment.com>
Subject: RE: Billing address

Hey Bill:

Please contact Kevin for that information, thanks. He's copied on this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Monday, August 26, 2019 10:48 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Billing address

Hi Chris I need an address to send the invoice . thanks Bill

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 3:07:26 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Franco, Benjamin <Franco.Benjamin@epa.gov>
Subject: RE: Can Ya'll Help A Brother Out

I've already talked to them and they said there are no PFOA/PFOS issues, I would just like to see if the folks who review products for the product schedule can chime in or possibly ERT. Basically, checking the box on our end while I work with SCDHEC to get their take as well.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Huyser, Matthew <Huyser.Matthew@epa.gov>
Sent: Thursday, August 22, 2019 11:05 AM
To: Russell, Chris <Russell.Chris@epa.gov>; Franco, Benjamin <Franco.Benjamin@epa.gov>
Subject: RE: Can Ya'll Help A Brother Out

PFOA/PFOS is the biggest concern. I can't find a definitive document that says it doesn't contain those but I will continue to look. Do you want me to call the manufacturer directly?

Novacool is not listed on the NCP product schedule for oil spill countermeasures

Their 2006 letter from the EPA is pretty funny, basically stating that the agency doesn't regulate it
http://novacoolfire.com/wp-content/uploads/2016/07/EPA_0001.pdf

I anticipate that no one at the agency is going to green light it for an emergency.

Matthew J. Huyser, PE - On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response Removal and Prevention Branch (ERRPB)
office: **404-562-8934** | cell: **678-427-8829** | fax: **404-562-8699**
epaosc.org

From: Russell, Chris <Russell.Chris@epa.gov>
Sent: Thursday, August 22, 2019 10:03 AM
To: Franco, Benjamin <Franco.Benjamin@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Can Ya'll Help A Brother Out

Gents: Can ya'll check with the powers to be to ensure we can utilize this product on this response, i.e. are there

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 1:03:30 AM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Re: Ceiling

Rick has been less than forthcoming on costs so far, showed only $4,000.

If I could remove him tomorrow I would.

Sent from my iPhone

On Aug 22, 2019, at 8:36 PM, Spurlin, Steve <Spurlin.Steve@epa.gov> wrote:

> This is ironic as I literally just sent emails to CMC and START telling them I wanted cost to date/burn rate in order when I got there. Only START responded so far.
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Webster, James" <Webster.James@epa.gov>
> > **Date:** August 22, 2019 at 7:17:55 PM CDT
> > **To:** "Moore, Tony" <moore.tony@epa.gov>, "Tanner, Terry" <Tanner.Terry@epa.gov>
> > **Cc:** "Huyser, Matthew" <Huyser.Matthew@epa.gov>, "Spurlin, Steve" <Spurlin.Steve@epa.gov>, "Patel, Subash" <Patel.Subash@epa.gov>
> > **Subject: Ceiling**
> >
> > Hey guys
> > We currently have ceiling of 4.25M, which we are scrambling to find money for (have less than 3 M in region) If we have to go higher it will likely need AA of OLEM signature fir ceiling increase, which will take some time to procure, if at all. Vitally need financials for response.
> >
> > Need up to date numbers by cob Saturday
> >
> > Jim
> >
> > Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 12:00:36 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: RE: Ceiling

Let me just say this, Terry has been trying hard to get those rates and so has Subash, the roadblock has been on the other end. Terry is downrange with Rick right now bending his ear and possibly strategically placing a boot in a strategic place. I'm not sure what's going on with Rick, but he has been one huge challenge this whole response.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Spurlin, Steve <Spurlin.Steve@epa.gov>
Sent: Thursday, August 22, 2019 8:36 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Ceiling

This is ironic as I literally just sent emails to CMC and START telling them I wanted cost to date/burn rate in order when I got there. Only START responded so far.

Sent from my iPhone

Begin forwarded message:

> **From:** "Webster, James" <Webster.James@epa.gov>
> **Date:** August 22, 2019 at 7:17:55 PM CDT
> **To:** "Moore, Tony" <moore.tony@epa.gov>, "Tanner, Terry" <Tanner.Terry@epa.gov>
> **Cc:** "Huyser, Matthew" <Huyser.Matthew@epa.gov>, "Spurlin, Steve" <Spurlin.Steve@epa.gov>, "Patel, Subash" <Patel.Subash@epa.gov>
> **Subject: Ceiling**
>
> Hey guys
> We currently have ceiling of 4.25M, which we are scrambling to find money for (have less than 3 M in region) If we have to go higher it will likely need AA of OLEM signature fir ceiling increase, which will take some time to procure, if at all. Vitally need financials for response.
>
> Need up to date numbers by cob Saturday
>
> Jim
>
> Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 8:23:05 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: RE: EPA Ops 8/25/2019 Able Contracting Fire

I made the mistake of providing her a write-up yesterday for their daily summary and she liked my skillz and asked me to do it again today. Historically, her folks were providing the info for the update, there's some advantage to us providing the update to ensure no facts get lost in translation. So, yes, from here on out, we should be doing that IMHO.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Spurlin, Steve <Spurlin.Steve@epa.gov>
Sent: Sunday, August 25, 2019 4:22 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: EPA Ops 8/25/2019 Able Contracting Fire

Thanks. Are you providing this kind of write up on regular schedule or on an " as appropriate" basis?

Sent from my iPhone

On Aug 25, 2019, at 3:00 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:

> Good Afternoon All:
>
> Here's a brief summary of EPA's actions today. I have copied Steve Spurlin and Terrence Byrd, a couple of OSC's that will be coming on board this week to start working this project as some of us swap out.
>
> As of 3 p.m. today:
>
> [redacted] (b) truckloads (approx. (b)(4) CBI of debris were strategically relocated on site at the Able Contracting Fire today. This resulted in a net savings of approximately $21,000 in disposal costs.
> [redacted] (b) truckloads (approx.. (b)(4) CBI of debris were taken to the Waste Management disposal facility.
> ***it should be noted that the loads of debris have been somewhat lighter (tonnage per truckload) yesterday and today, it is believed that this is due to the strategic operational changes implemented to improve water efficiency***
>
> At the request of the Beaufort County Superintendent of Schools, EPA along with their contractors, the U.S. Coast Guard, and SCDHEC conducted air monitoring operations inside and outside of the Okatie Elementary School during today's operations. There were no detections of any chemicals of concern. Utilizing three different agencies provided for a duplicative and redundant approach to the air monitoring activities, thus elevating the degree of confidence in the findings. A

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:45:01 AM
To: Mike Bellamy <mikebellamy24@gmail.com>
Subject: Re: Firefighting Additive

Thanks Mike:

A chief down in Tampa I know let us borrow a tote of Novacool Friday. We will order a tote and have it shipped to them in return this week.

Thanks again for reaching out to folks.

Stay safe brother.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 11:39 PM, Mike Bellamy <mikebellamy24@gmail.com> wrote:

> Hey Chris, I sent an email out to my SC contact, haven't heard anything back yet.
>
> Mike Bellamy
> 8th District Vice President
> Florida Professional FireFighters
> 343 West Madison Street
> Tallahassee, FL 32301
> 850.264.7420
> Mikebellamy24@gmail.com
>
> On Aug 22, 2019, at 5:11 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>
>> Hey Mike, great talking to you earlier. As discussed, EPA is working on a debris fire up in Ridgeland, South Carolina and we are looking at utilizing Novacool as an additive to help mitigate the fire. In turn, I was wondering if you and/or any of your colleagues had any experience utilizing this product and if so, if ya'll had any comments, etc about its utilization. If the experiences have been positive, we are looking to try and find some nearby that we could use (i.e. see about borrowing some from a F.D. and then backfilling what we borrowed). Any assistance you can provide will be greatly appreciated.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, September 12, 2019 12:56:34 AM
To: Cobb, Wilda <Cobb.Wilda@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
CC: Garrard, Jordan <Garrard.Jordan@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Miller, Angela <Miller.Angela@epa.gov>; Tolliver, Ronald <Tolliver.Ronald@epa.gov>
Subject: RE: FOIA Able Contracting - FOIA # EPA-R4 2019-008608

I have an "Able Contracting" email box with all of the emails, photos, texts, etc in it, just let me know where it needs to be sent, etc.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Cobb, Wilda <Cobb.Wilda@epa.gov>
Sent: Wednesday, September 11, 2019 5:17 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Cc: Garrard, Jordan <Garrard.Jordan@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Miller, Angela <Miller.Angela@epa.gov>; Tolliver, Ronald <Tolliver.Ronald@epa.gov>
Subject: FOIA Able Contracting - FOIA # EPA-R4 2019-008608

Guys – We have a FOIA for all the usual documents for the Able Contracting Fire Site (see attached). I explained to FOIA that it was ongoing. If you have put putting information into SEMS then you are covered. If I have left anyone off the mailing list who was at the Site let me know. You ICs may want to come up with a plan on how you respond to FOIAs so that everyone does not have to deal with it. Or does some in the system already have that job.

Let me know if you all need any help,
Wilda Cobb
Associate Regional Counsel
US EPA Region 4
Office (404) 562-9530
Cell (404) 433-3729

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 12:49:32 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: RE: Heads up

Which START? If it's Paul Prys or Chris Jones, it would be due to them having the lead. For the most part, we are doing 12 hour days minimum and when I say 12 hour days, I don't mean driving to the site, working a little, taking long lunches, going home, etc and counting all of those hours as work time. I mean on a lot of the days thus far, for 12 hours minimum we are on-site working, this includes START (ERRS crews drop-off a little earlier). In turn, I can see where some START, especially the leads could have 14.5 hours due to their reports, etc.

Terry just came back with a burn rate that's in-line with what Matt had pulled together earlier and according to Subbie in-line with what Tony and Jim had pulled together.

I will caution this: it's easy to arm-chair quarterback (I'm not saying you are doing that by any means, but there's no doubt that it's occuring in Atlanta), so folks need to understand that. If all goes well, we will have a nice battle rhythm set in place before you get here, but the logistical/operational challenges are somewhat a beast. Plus, our PM has been quite the challenge. IMHO, if Atlanta would chill out a little bit, things would run smoother. This project is really just a removal project with some unique challenges.

There are things I would have done differently, but that's the case with all OSC's and all responses

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Spurlin, Steve <Spurlin.Steve@epa.gov>
Sent: Friday, August 23, 2019 8:18 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: Heads up

Well at least TT provided useful info. I am wondering if you can shed light on why a START would be working 14.5 hr days?

Sent from my iPhone

Begin forwarded message:

> **From:** "Jones, Chris" <chris.jones@tetratech.com>
> **Date:** August 22, 2019 at 10:27:17 PM CDT
> **To:** "Spurlin, Steve" <Spurlin.Steve@epa.gov>, "Johnson, Andrew" <Andy.Johnson@tetratech.com>
> **Cc:** "Patel, Subash" <Patel.Subash@epa.gov>, "Tanner, Terry" <Tanner.Terry@epa.gov>
> **Subject: RE: Heads up**

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 17, 2019 11:19:37 PM
To: Franco, Benjamin <Franco.Benjamin@epa.gov>; Negron, Jose <Negron.Jose@epa.gov>
CC: Huyser, Matthew <Huyser.Matthew@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: RE: IAP

Rick said they have 9 folks on site.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Franco, Benjamin <Franco.Benjamin@epa.gov>
Sent: Saturday, August 17, 2019 7:14 PM
To: Negron, Jose <Negron.Jose@epa.gov>
Cc: Huyser, Matthew <Huyser.Matthew@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: RE: IAP

I still owe you the 230 that I am putting in right now. I do not have any USCG numbers for the 205 or numbers for USCG (Safety) in the 204 Fire Mitigation Group.

Respectfully,

Benjamin Franco,
Federal On Scene Coordinator
Emergency Response, Removal and Prevention Branch
Superfund Division
USEPA R4
61 Forsyth St
Atlanta, GA 30303

404-562-8758 (w)
404-915-6952 (c)

Report Oil and Chemical Spills to the National Response Center 1-800-424-8802

From: Negron, Jose <Negron.Jose@epa.gov>
Sent: Saturday, August 17, 2019 7:11 PM
To: Franco, Benjamin <Franco.Benjamin@epa.gov>
Cc: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: IAP

Ben:

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 2:46:06 PM
To: Sales <ucfm1@aol.com>
Subject: RE: msds for novacool

Would this be different than the MSDS we had yesterday?

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:45 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: msds for novacool

-----Original Message-----
From: Kathy Cardinal <kathy@baumscastorine.com>
To: ucfm1 <ucfm1@aol.com>
Sent: Tue, Mar 27, 2018 2:46 pm
Subject: msds

See attached

Kathy Cardinal
Office Manager
Baum's Castorine Co., Inc.
315-336-8154

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:46:05 AM
To: Sales <ucfm1@aol.com>
CC: paul@baumscastorine.com; kathy@baumscastorine.com; cryan@swfirefightingfoam.com
Subject: Re: Novacool info

Thank you Mr. Bill

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 11:54 PM, Sales <ucfm1@aol.com> wrote:

> Hi Chris sending you some information about novacool with regards to the pile fire. Novacool can be used at .01,.02, .03, or .04%. To start using novacool on this fire I would go with .02 % this will let the solution travel further into the pile. This pile will be very difficult to penetrate even with the solution. There are two ways you can go at this, rip the pile apart or drill the solution into the pile I would go with drilling the solution into the pile. Using novacool enhanced water will let you do this fire with no runoff. While flowing the solution on the pile if you start to see any runoff stop the flow and adjust how it is being applied , move to another area and let the solution soak in. Novacool will also help to get rid of the smell and it will scrub the particles out of the smoke. You can goggle youtube Bill Oke there are videos of fires like this that you can get information from. You can call me if you need any help using the novacool. Thanks Bill Oke 704-607-9576.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:46:05 AM
To: Sales <ucfm1@aol.com>
CC: paul@baumscastorine.com; kathy@baumscastorine.com; cryan@swfirefightingfoam.com
Subject: Re: Novacool info

Thank you Mr. Bill

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 11:54 PM, Sales <ucfm1@aol.com> wrote:

> Hi Chris sending you some information about novacool with regards to the pile fire. Novacool can be used at .01,.02, .03, or .04%. To start using novacool on this fire I would go with .02 % this will let the solution travel further into the pile. This pile will be very difficult to penetrate even with the solution. There are two ways you can go at this, rip the pile apart or drill the solution into the pile I would go with drilling the solution into the pile. Using novacool enhanced water will let you do this fire with no runoff. While flowing the solution on the pile if you start to see any runoff stop the flow and adjust how it is being applied , move to another area and let the solution soak in. Novacool will also help to get rid of the smell and it will scrub the particles out of the smoke. You can goggle youtube Bill Oke there are videos of fires like this that you can get information from. You can call me if you need any help using the novacool. Thanks Bill Oke 704-607-9576.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 11:58:36 AM
To: Sales <ucfm1@aol.com>
Subject: RE: Novacool quote

Thanks Bill:

We are good with the amount to be ordered, i.e. 100 gallons. As we are utilizing taxpayer dollars to mitigate the fire, we would greatly appreciate any reduction in the pricing your team can provide. We'd prefer to get the Novacool sooner than later, in turn, let me know if there are other options to speed up delivery, i.e. getting it from the Tampa area, etc.

Once we are all squared away on logistics, etc we can get our Finance Chief to pull the trigger on the order.

I have a few meetings tying me up this morning, however, I should be able to respond via email or text during those meetings.

In advance, thanks.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Thursday, August 22, 2019 8:38 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Novacool quote

Hi Chris here is the quote for 100 gallons of novacool UEF in 5 gal. pails@26.00 per gallon =2600.00Plus S/H of 245.00 for a total of 2845.00 Let me know you got this thanks Bill Oke. Two to three days ship time. There is some novacool in Tampa Fl. that we may be able to get in one day I will call you in the am.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 1:18:49 PM
To: Sales <ucfm1@aol.com>; Kevin Hitron <kevin@cmcenvironment.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Rick Hollingsworth <cmcrickh@aol.com>
Subject: RE: Novacool quote

Good Morning Bill and Kevin:

Kevin: Mr. Bill is working out some logistics to get us a tote of Novacool as soon as possible. When the logistics are worked out, we'll need to set up a payment to the appropriate entity (be it the distributor, a fire department letting us use the product, etc). In turn, when Mr. Bill has the logistics, costs, etc nailed down and sent to me, I will get with you and we will need to pull the trigger on the payment. I just wanted to give you a heads up that this will be forthcoming.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Thursday, August 22, 2019 8:38 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Novacool quote

Hi Chris here is the quote for 100 gallons of novacool UEF in 5 gal. pails@26.00 per gallon =2600.00Plus S/H of 245.00 for a total of 2845.00 Let me know you got this thanks Bill Oke. Two to three days ship time. There is some novacool in Tampa Fl. that we may be able to get in one day I will call you in the am.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 4:17:41 PM
To: Sales <ucfm1@aol.com>
Subject: RE: novacool tampa

Hello Bill:

I have not been successful making contact with Chief Salabarria at Tampa FD via email and/or phone, is there another contact avenue I can try?

In advance, thanks.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:27 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: novacool tampa

Hi Chris here is the contact with Tampa Fire you can call him to make arrangements for them to deliver the tote. They might be able to get it there today. Let me know what you come up with. thanks Bill

-----Original Message-----
From: Jimmy Combs <Jimmy.Combs@tampagov.net>
To: ucfm1@aol.com <ucfm1@aol.com>
Sent: Fri, Aug 23, 2019 10:12 am
Subject: novacool tampa

Ricardo.Salabarria@tampagov.net
813-557-5402

Share Copy link Download Delete Copy to Version history Previous 111 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 4:17:41 PM
To: Sales <ucfm1@aol.com>
Subject: RE: novacool tampa

Hello Bill:

I have not been successful making contact with Chief Salabarria at Tampa FD via email and/or phone, is there another contact avenue I can try?

In advance, thanks.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:27 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: novacool tampa

Hi Chris here is the contact with Tampa Fire you can call him to make arrangements for them to deliver the tote. They might be able to get it there today. Let me know what you come up with. thanks Bill

-----Original Message-----
From: Jimmy Combs <Jimmy.Combs@tampagov.net>
To: ucfm1@aol.com <ucfm1@aol.com>
Sent: Fri, Aug 23, 2019 10:12 am
Subject: novacool tampa

Ricardo.Salabarria@tampagov.net
813-557-5402

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 18, 2019 6:52:57 PM
To: Prys, Paul <Paul.Prys@tetratech.com>
Subject: RE: Okatie Elementary Monitoring for HCN

Hey Paul:

Can you shoot me the !330 readings from the elementary school?

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Prys, Paul <Paul.Prys@tetratech.com>
Sent: Sunday, August 18, 2019 8:41 AM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Negron, Jose <Negron.Jose@epa.gov>
Subject: Okatie Elementary Monitoring for HCN

Matt, Chris, and Jose,

I've attached the Okatie Elementary air monitoring results for HCn collected from 1340 hrs on 08/17/19 to 0600 hrs on 08/18/19. There was a spike of 2 ppm at 1343 and 1344 hrs on 08/17/19, but the period average was 0.5 ppm.

Give this a look and let me know if you need anything else.

Paul Prys | Senior Environmental Scientist/Project Manager
Direct: 678.775.3106 | Cell: 404.849.7136 | Fax: 678.775.3138
paul.prys@tetratech.com

Tetra Tech | Atlanta Office
1955 Evergreen Blvd. Bldg. 200, Ste. 300, Duluth, GA 30096 www.tetratech.com | NASDAQ:TTEK

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 16, 2019 1:51:02 AM
To: Moore, Tony <moore.tony@epa.gov>
Subject: Re: OSC availability to mobilize to Able Contracting

Roger that.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

> On Aug 15, 2019, at 9:50 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>
> Plan on mobing tomorrow. Appreciate the help. Matt needs the support
>
> Sent from my iPhone
>
>> On Aug 15, 2019, at 9:19 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>>
>> Hey Tony:
>>
>> If no one else steps up, my wife advised she won't throw me in the doghouse if I need to help my colleagues out.
>>
>> Like you said, we have 28 of us, so I suspect someone else may be able to fill the void, if that doesn't happen, let me know and I will rearrange my schedule this weekend and next week to help out.
>>
>> Respectfully,
>>
>> Chris Russell
>> Federal On Scene Coordinator
>> US EPA Region 4/Florida Outpost
>> Ph. (850) 274-1575
>> Email: Russell.Chris@epa.gov
>>
>>> On Aug 15, 2019, at 8:53 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>>>
>>> How long is a few days?
>>>
>>> Sent from my iPhone
>>>
>>>> On Aug 15, 2019, at 8:23 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>>>>
>>>> I might be able to up and help a few days if I can get out of a hotel Rez I have for tomorrow night. I would need to know ASAP if I'm headed out to help so I can start to try and rearrange things. If you will, just let me know either way.
>>>>
>>>> Respectfully,
>>>>
>>>> Chris Russell
>>>> Federal On Scene Coordinator
>>>> US EPA Region 4/Florida Outpost
>>>> Ph. (850) 274-1575

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 16, 2019 1:19:11 AM
To: Moore, Tony <moore.tony@epa.gov>
Subject: Re: OSC availability to mobilize to Able Contracting

Hey Tony:

If no one else steps up, my wife advised she won't throw me in the doghouse if I need to help my colleagues out.

Like you said, we have 28 of us, so I suspect someone else may be able to fill the void, if that doesn't happen, let me know and I will rearrange my schedule this weekend and next week to help out.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

> On Aug 15, 2019, at 8:53 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>
> How long is a few days?
>
> Sent from my iPhone
>
>> On Aug 15, 2019, at 8:23 PM, Russell, Chris <Russell.Chris@epa.gov> wrote:
>>
>> I might be able to up and help a few days if I can get out of a hotel Rez I have for tomorrow night. I would need to know ASAP if I'm headed out to help so I can start to try and rearrange things. If you will, just let me know either way.
>>
>> Respectfully,
>>
>> Chris Russell
>> Federal On Scene Coordinator
>> US EPA Region 4/Florida Outpost
>> Ph. (850) 274-1575
>> Email: Russell.Chris@epa.gov
>>
>>> On Aug 15, 2019, at 8:01 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>>>
>>> Circumstances have changed at Able, who is available to respond to the incident as early as tomorrow. Matt has requested assistance. R1 has been deployed to another ER. Any help?
>>>
>>> Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 16, 2019 12:23:51 AM
To: Moore, Tony <moore.tony@epa.gov>
Subject: Re: OSC availability to mobilize to Able Contracting

I might be able to up and help a few days if I can get out of a hotel Rez I have for tomorrow night. I would need to know ASAP if I'm headed out to help so I can start to try and rearrange things. If you will, just let me know either way.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

> On Aug 15, 2019, at 8:01 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>
> Circumstances have changed at Able, who is available to respond to the incident as early as tomorrow. Matt has requested assistance. R1 has been deployed to another ER. Any help?
>
> Sent from my iPhone

Share Copy link Download Delete Copy to Version history Previous 116 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 16, 2019 10:22:30 AM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: Re: OSC availability to mobilize to Able Contracting

Good Morning Matt:

Can you shoot me a hard address to use? I hope to be up by 2 pm at the latest.

I will call on the way up and get the details on what you have going.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4/Florida Outpost
Ph. (850) 274-1575
Email: Russell.Chris@epa.gov

> On Aug 15, 2019, at 10:29 PM, Huyser, Matthew <Huyser.Matthew@epa.gov> wrote:
>
> Chris,
>
> Thanks very much. Looking forward to having you. Franklin will be on-site tomorrow as well - hopefully you can catch him.
>
>
>
>
>
>
> Matthew J. Huyser, PE - On-Scene Coordinator
> U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
> Emergency Response Removal and Prevention Branch (ERRPB)
> office: 404-562-8934 | cell: 678-427-8829 | fax: 404-562-8699
> epaosc.org
>
> -----Original Message-----
> From: Moore, Tony <moore.tony@epa.gov>
> Sent: Thursday, August 15, 2019 10:02 PM
> To: R4 ERRB <R4_ERRB@epa.gov>
> Subject: Re: OSC availability to mobilize to Able Contracting
>
> Chris Russell is mobilizing tomorrow. Thank you Chris
>
> Sent from my iPhone
>
>> On Aug 15, 2019, at 8:01 PM, Moore, Tony <moore.tony@epa.gov> wrote:
>>
>> Circumstances have changed at Able, who is available to respond to the incident as early as tomorrow. Matt has requested assistance. R1 has been deployed to another ER. Any help?
>>
>> Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 12:47:28 PM
To: Tricia H. Kilgore, P.E. <Tricia.Kilgore@bjwsa.org>
CC: Earl Sheppard <Earl.Sheppard@bjwsa.org>
Subject: RE: PFAS (Novacool)

Good Morning Tracia:

Thanks for the review and the information relative to Novacool. We conducted a beta-test with the Novacool a few days ago, and given the way our operations are being conducted, there was no noticeable difference. In turn, we will not utilize the foam in the future on this response.

Please let me know if you have any comments, questions, or concerns pertaining to this message.

Thank you and your team for partnering with us.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Tricia H. Kilgore, P.E. <Tricia.Kilgore@bjwsa.org>
Sent: Tuesday, August 27, 2019 8:03 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Earl Sheppard <Earl.Sheppard@bjwsa.org>
Subject: RE: PFAS (Novacool)

Chris,

I have reviewed the info you sent on the Novacool and other info, and it doesn't like it will pose a problem to our system to discharge firefighting water with Novacool. As with all fire-fighting chemicals, the water supply must be protected with an RP backflow device. You can get a construction meter for the hydrant from customer service. The hydrant meters come with a backflow device. I will send an official letter. Let us know if you have any questions.

Tricia

Tricia H. Kilgore, P.E.
Director of Treatment Operations
Tricia.Kilgore@bjwsa.org

BJWSA
6 Snake Road

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 30, 2019 12:05:09 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: RE: Pile

How's Mt. Trashmore Brotha, still steaming and no smoke (pile steaming, not you◆?◆?)

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Message-----
From: Spurlin, Steve <Spurlin.Steve@epa.gov>
Sent: Wednesday, August 28, 2019 6:55 AM
To: Moore, Tony <moore.tony@epa.gov>; Webster, James <Webster.James@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Pile

Crew said this is best it's look. Minor steam. See what happens when you finally get good OPS guy on scene. Ha ha. Looking good.

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From: Russell, Chris <Russell.Chris@epa.gov>
Sent on: Monday, August 26, 2019 7:57:33 PM
To: Muckenfuss, Mark <MMuckenfuss@wm.com>; Henry, Timothy <thenry5@wm.com>
CC: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: RE: Price offer Able from WM

Thanks Mark and WM Team for turning this around so quickly. We will talk with our State partners, upper management, etc and see if there is a path forward they would like to take.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Muckenfuss, Mark <MMuckenfuss@wm.com>
Sent: Monday, August 26, 2019 2:21 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Henry, Timothy <thenry5@wm.com>
Cc: Barnes, Gene(Atlanta GA) <GBarnes4@wm.com>; Miller, Steve E. <smiller6@wm.com>
Subject: Price offer Able from WM

Chris,

Excuse the letter in its informal state, but I can formalize it later.

Recycling is a good thing. Please recycle any printed emails.

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 7:37:36 PM
To: Snyder, John <John.Snyder@tetratech.com>
Subject: RE: Recent air monitoring data

Thanks buddy.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Snyder, John <John.Snyder@tetratech.com>
Sent: Monday, August 26, 2019 3:20 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Recent air monitoring data

Mr. Russell,
I've reviewed the air monitoring data from the past 6 reporting periods (72 hours). There have been no off-site chemical exceedances of the action levels detected by our electrochemical sensors, and particulate monitors have reported "Good" to "Moderate" pm2.5 levels.

Let me know if I can provide any additional information to help.

-John

John Snyder, PG, PE | Environmental Engineer
Mobile **+1 (770) 402-9013** | john.snyder@tetratech.com

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Raleigh, NC (Cary) | tetratech.com

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TETRA TECH

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 9:12:40 PM
To: Frank Edwards <fedwards@jaspercountysc.gov>
CC: Huyser, Matthew <Huyser.Matthew@epa.gov>
Subject: RE: Site Update

Good Afternoon Frank:

We were able to get 61 loads sent off-site today. The loads average about 10 tons each (ballpark, but a pretty solid number for estimating purposes). In turn, between Saturday's operations of removing the material and today's, we have shipped about 900 tons of material off-site.

We did not encounter any issues with safety or air quality at the Site or off-site today, nor did we have any traffic issues.

We did conduct air-monitoring at the Okatie Elementary School last night (duplicate, i.e. both our folks and the Coast Guard folks using separate equipment). We did not encounter any HCN detections in the school, outside of the school, etc.

Don't hesitate to contact me should you have any other questions and/or concerns.

Have a good evening.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Frank Edwards <fedwards@jaspercountysc.gov>
Sent: Monday, August 19, 2019 4:36 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Site Update

Chris,
Can you give me a quick update from the work today? Loads completed, any safety or monitoring issues? Thanks

Frank Edwards
Jasper County

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 19, 2019 12:37:45 PM
To: Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
CC: Miller, Angela <Miller.Angela@epa.gov>
Subject: RE: Story Map

Good Morning Ron:

I am not familiar with Story Map, sorry buddy.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

-----Original Message-----
From: Tolliver, Ronald <Tolliver.Ronald@epa.gov>
Sent: Monday, August 19, 2019 8:27 AM
To: Russell, Chris <Russell.Chris@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Cc: Miller, Angela <Miller.Angela@epa.gov>
Subject: Story Map

Hey Chris and Subash, when you get some time, could one of you explain how the story map works (or supposed to work) in general and on the website?

Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 1:11:31 AM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>
Subject: Re: Sunday ERNS

I "may" be able to stick around and take Rick's tour (would depend on what my wife says). Of course when I say take Rick's tour I mean I would continue with Ops and somebody would do the paperwork.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 8:43 PM, Spurlin, Steve <Spurlin.Steve@epa.gov> wrote:

> As usual.. plan something and up pops a response. I'm sure Rick will respond to Able as response allows.
>
> Tony, we may need to think about alternate in near term if needed. Seems ops going in positive direction. We can evaluate needs tomorrow but as you know, sometimes it's about having someone to keep up with admin side.
>
> Sent from my iPhone
>
> On Aug 25, 2019, at 6:24 PM, Negron, Jose <Negron.Jose@epa.gov> wrote:
>
> > **NRC # 1256350** - Uncontrolled release of anhydrous ammonia from the Bulk Ice and Coal Facility in Columbus, GA. Fire Department reports release initiated at approximately 1030 hours on 08/24/2019. Fire Department conducting air monitoring and filed NRC Report. EPA Region 4 Telephone Duty contacted by GA EPD. Based on information gathered by EPA Region 4 Telephone Duty from the Columbus Fire Department OSC Jardine was deployed to provide assistance on 08/25/2019.
> >
> > No other significant incidents.
>
> Jose A. Negron
> Federal On-Scene Coordinator
> U.S. Environmental Protection Agency
> Region 4, Atlanta, GA

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 7:36:09 PM
To: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Subject: RE: Surface Water Samples

Thanks Jeffrey for sending this over so quickly. Can you advise when this sample was taken so I can advise BJWSA accordingly.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:20 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Surface Water Samples

Chris,

Please find attached the lab report summary for the waste pile run-off sample collected on 8/2/2019.

Jeffrey Schrag
Waste Assessment Section Manager
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4326
Mobile: (803) 429-4102

Fax: (803) 898-1415

Connect: www.scdhec.gov Facebook Twitter

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Sunday, August 25, 2019 1:58:44 AM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>; Hitman <kevin@cmcenvironment.com>
Subject: Re: T and D for 8/24/19

Rick, you and the team managed to exceed the excellent day before which was no small feat brotha. Let's keep rocking and being safe.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

> On Aug 24, 2019, at 9:26 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:
>
> Gentlemen,
>
> No official reports over the weekend so I got the ol calculator out and came up with the following:
> (b) trucks hauled (b)(4) on site to the gap and (b)(4) to WM for a total of (b)(4) CBI = $13,115.10
> Trucking = (b)(4) CBI
> Vac truck hauled (b) loads = (b)(4) CBI gallons pumped from the ditch
> The Novacool was delivered
> The concrete pumper boom truck was utilized to pump water into 3 hot spots. No visible smoke in those 3 areas when leaving the site.
> Another successful day! Thanks everyone!
>
>
> Sent from my iPhone

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 1:42:53 AM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: T&D for 8/25/19

Roger that brotha, the team keep's knocking it out of the park.

Any chance you can shoot me the total number of loads off site and total moved on site before tomorrow morning's meeting.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

> On Aug 25, 2019, at 9:30 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:
>
> Gentlemen,
>
> Another good day!
> Used (b trucks to haul material today.
> (b)(4) CBI went to the gap
> (b)(4) went to WM total (b)(4) CBI = $13,552.50
> Trucking cost is (b)(4) CBI
> Vac truck- (b)(4). (b from the Frac tank and (b) from the ditch
> Applied foam to AD section of the pile
> Used concrete pump truck to apply water to CD and AD sections.
> Have a good evening, let's do it again tomorrow!
>
> Sent from my iPhone

Share Copy link Download Delete Copy to Version history Previous 127 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:42:34 AM
To: Rick Hollingsworth <cmcrickh@aol.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: T&D for 8/25/19

Thank you sir.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 25, 2019, at 10:29 PM, Rick Hollingsworth <cmcrickh@aol.com> wrote:

Yes Sir!

Total of 355 loads hauled to the gap in 4 days
381 loads to WM = 3,694.26 tons in 8 days

Thank You,
Rick Hollingsworth
CMC Inc. Senior Project Manager

Cell- 859-333-3644
email- rick@cmcenvironment.com

Main Office:
CMC Inc.
1151 Jessamine Station Rd.
Nicholasville, KY 40356
office- 1-888- 854- 3732
fax- 859- 885-4688

-----Original Message-----
From: Russell, Chris <Russell.Chris@epa.gov>
To: Rick Hollingsworth <cmcrickh@aol.com>
Cc: Tanner, Terry <Tanner.Terry@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Patel, Subash <Patel.Subash@epa.gov>
Sent: Sun, Aug 25, 2019 9:42 pm
Subject: Re: T&D for 8/25/19

Roger that brotha, the team keep's knocking it out of the park.

Share Copy link Download Delete Copy to Version history Previous 128 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 10:43:13 PM
To: reecemc@dhec.sc.gov; Henry Porter <porterhj@dhec.sc.gov>
Subject: Re: Today's Able Update

I believe I'm gonna need some copyright royalties on this summary and the associated visuals 😁.

Great use of truthful messaging and visuals. Hopefully the continued messaging of facts via a transparent format will provide for an increased level of comfort to the citizens (and politicos).

Today was a huge success and at this rate I suspect our time on site will be greatly diminished.

Have a great evening and y'all holler if ya need anything.

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

On Aug 24, 2019, at 6:17 PM, Reece, Myra <reecemc@dhec.sc.gov> wrote:

Sent from my iPhone

Begin forwarded message:

From: "Yon, Katherine" <yonk@dhec.sc.gov>
Date: August 24, 2019 at 5:21:50 PM EDT
To: "Reece, Myra" <reecemc@dhec.sc.gov>, "Shealy, Renee" <shealyrg@dhec.sc.gov>, "Moore, Cristi Y." <moorecy@dhec.sc.gov>, "Crosby, L. Tommy" <crosbylt@dhec.sc.gov>, "Caldwell, Richard" <CALDWERT@dhec.sc.gov>, "Thompson, Rhonda" <thompsrb@dhec.sc.gov>, "Porter, Henry" <porterhj@dhec.sc.gov>, "Frost, Keith" <frostrk@dhec.sc.gov>
Cc: "Marshall, Frances (Fran)" <marshaf2@dhec.sc.gov>, "Boyce, Lawra" <boycelc@dhec.sc.gov>, "Gary, Joseph T." <garyjt@dhec.sc.gov>, "Childers, Elizabeth K." <childeek@dhec.sc.gov>, "Renwick, Laura A." <renwicla@dhec.sc.gov>, "Boswell, Wendy" <BOSWELWM@dhec.sc.gov>, "Stewart, R. Gary" <stewarrg@dhec.sc.gov>, "Spradlin, Michael J." <spradlmj@dhec.sc.gov>, "Lee, Paul" <leepd@dhec.sc.gov>
Subject: Today's Able Update

Share Copy link Download Delete Copy to Version history Previous 129 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 6:09:42 PM
To: Sales <ucfm1@aol.com>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Kevin Hitron <kevin@cmcenvironment.com>
CC: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: RE: tote cost

Courtney and Kevin: Please find below the information pertaining to the Novacool we are purchasing.

Kevin: they will need an email/hard address to send the invoice. We will use sole-source justification for the costs.

Ya'll holler if there's anything ya'll need from me.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 1:47 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: tote cost

Hi Chris the cost of the tote from Tampa is [redacted] gal. @ [redacted] per gal. [redacted] plus s/h of [redacted] for total of 7275.00. The invoice will come from Baums castorine co. Inc. 200 Matthew St. Rome NY. 13440. Baums will ship replacement tote to Tampa. I need the address for Baums to send the invoice. Thanks Bill

Share Copy link Download Delete Copy to Version history Previous 130 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Wednesday, August 28, 2019 7:39:34 PM
To: Patel, Subash <Patel.Subash@epa.gov>
Subject: Re: Unified Command Able photo

Outstanding!!!

Respectfully,

Chris Russell
Federal On Scene Coordinator
EPA Region 4 - Florida Outpost
Cell: (850) 274-2575

> On Aug 28, 2019, at 2:51 PM, Patel, Subash <Patel.Subash@epa.gov> wrote:
>
>
> <IMG_2736.jpeg>
>
>
>
> <IMG_2756.jpeg>
>
>
> Subash C. Patel, MPH
> On-Scene Coordinator
> US EPA R4 - Atlanta
> (404)229-9495

Share Copy link Download Delete Copy to Version history Previous 131 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 3:55:47 PM
To: Reece, Myra <reecemc@dhec.sc.gov>
Subject: RE: Unified Command Approach

You are welcome and no worries either way if ya'll want to go that route or not, totally ya'lls call.

Have a great weekend and holler if you or your team need anything.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Reece, Myra <reecemc@dhec.sc.gov>
Sent: Saturday, August 24, 2019 11:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Re: Unified Command Approach

Thanks Chris! Let me discuss with Henry on Monday and I will get back with you. Appreciate the updates and feedback!

Sent from my iPhone

On Aug 24, 2019, at 8:50 AM, Russell, Chris <Russell.Chris@epa.gov> wrote:

*** Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
Good Morning Myra:

As discussed previously, EPA's contractors are strategically relocating loads of debris on site to gain better access to mitigate the fire. Simultaneously, we are also disposing of loads of debris at the local Waste Management facility. In the past two days, we have relocated nearly 2,000 tons of debris on site, while at the same time, we have disposed of approximately 450 tons at the local landfill. While it is not our intent to send every load of debris off-site for disposal, I am not opposed to adjusting our operations to send more loads off-site for disposal should SCDHEC wish to incur the disposal costs (tipping fees). We are paying for the equipment, operators, dump-trucks, etc already, in turn, if it's beneficial to SCDHEC to have the loads sent to a landfill instead, I'm sure we can make arrangements to develop a plan that can incorporate that until we mitigate the fire.

I was a little unclear as to what Keith advised in the public meeting the other night, however, I left there with the impression that SCDHEC advised the public that they are going to ensure the waste was removed after we left (not sure who would be paying). If SCDHEC is projected to pay for those costs, in lieu of ya'll having to pay overhead for equipment, operators, trucks, etc to accomplish that, we can partner with ya'll while we are here. In a nutshell, it's totally ya'lls call. Right now we are

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 6:36:09 PM
To: Marcus, Mike <MARCUSJM@dhec.sc.gov>; Ziegler, David <ziegledm@dhec.sc.gov>
CC: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; shealyrg@dhec.sc.gov; Burdick, Stephen <burdicsc@dhec.sc.gov>; Jeffrey Schrag <schragjm@dhec.sc.gov>
Subject: RE: Wetting Agent

Thank you Mike for your quick turnaround with this matter. We will keep ya'll posted should we move forward with implementing this additive.

Once again, thanks for tackling this so quickly.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Marcus, Mike <MARCUSJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 1:59 PM
To: Russell, Chris <Russell.Chris@epa.gov>; Ziegler, David <ziegledm@dhec.sc.gov>
Cc: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; shealyrg@dhec.sc.gov; Burdick, Stephen <burdicsc@dhec.sc.gov>; Jeffrey Schrag <schragjm@dhec.sc.gov>
Subject: Re: Wetting Agent

Chris:

Then Department has reviewed information on the proposed wetting agent and has no objections to it being deployed by EPA. The chemistry looks good and we especially appreciate its non-fluoro-containing characteristic and its amenability to aquatic environments re: impact potential

We do request that EPA consider make some type of proper public communication prior to deployment so that there will not be a misunderstanding by the public that PFAS-containing materials is being used once foam is observed being applied.

Thank you for the opportunity to offer our input and for your ongoing work.

Best Regards,

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 12:01:50 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Sparging
Attachments: IMG_0018.MOV (1.35 MB), ATT00001.txt (123 Bytes)

No T-Byrd that's not a redneck fish fryer..◆?◆?

Armstrong, Kathy

From: Russell, Chris
Sent: Saturday, August 24, 2019 8:02 AM
To: Swanson, Courtney; Tanner, Terry; Huyser, Matthew; Spurlin, Steve; Byrd, Terrence
Subject: Sparging
Attachments: IMG_0018.MOV; ATT00001.txt

No T-Byrd that's not a redneck fish fryer..😁

Share Copy link Download Delete Copy to Version history Previous 134 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 12:31:06 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Subash Patel <Patel.Subash@epa.gov>
Subject: Talking Points

Positives:

- Outstanding meeting with SCDHEC senior leadership yesterday afternoon. EPA IMT spent over 2 hours discussing strategies and partnerships moving forward. SCDHEC committed to providing a senior agency official on the planning days to help set overall objectives. They further committed to staffing the UC with an individual that can make decisions on behalf of SCDHEC (the issue previously was the "Liaison" they sent was not empowered to make decisions and basically acted as a spotter).

- EPA implemented a change for yesterday's operations that resulted in reducing disposal fees by $22,000. The change included having trucks shift waste on-site into the "gap" area. A total of 75 loads were placed into the gap area, i.e. approximately 750 tons were not disposed of. When the logistics/operations at the site allow for this practice to be implemented, it will take place. We will be limited by the amount of space in the gap and operational challenges.

- In an effort to help reduce the impact of run-off migrating off-site, we continue to seek ways to capture/reuse this water. Currently, we are still placing water in the frac tanks to be utilized on the fire as applicable. We have also coordinated with the local water/sewer authority in moving forward with potentially sending the run-off water to their WWTP. We are waiting on sample results before this can be implemented. SCDHEC provided us with some sample results we have forwarded to the Water/Sewer Authority and they will provide more results when they are received. Once this is completed and an agreeable price can be negotiated, we will implement this effort.

- We have implemented a air sparging operation to help with the water quality of water migrating off-site.

- We are working with the manufacturer of Novacool in an effort to implement an additive to the water being used to mitigate the fire. We have coordinated with SCDHEC to ensure they approve of this additive being used. Their staff conducted a review of the MSDS yesterday and have advised they have no issues with this additive being used. We are ordering 100 gallons of the product (around $3,000 with shipping) and hope to have it in by the middle of next week.

- Concrete pump truck water application is scheduled to begin tomorrow.

Challenges:

- As everyone knows, this site is very unique and has challenges at every corner. We continue to address those challenges. The RP was sent to the hospital yesterday due to a possible heart attack.
- Smoke, as we dig deeper to get into the belly of the beast, we are generating more smoke. We

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Tuesday, August 27, 2019 1:00:55 PM
To: reecemc@dhec.sc.gov; Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
CC: Spurlin, Steve <Spurlin.Steve@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>
Subject: Today's Objectives Meeting

Good Morning Everyone:

Here's the call in number for the 10 a.m. Objectives Meeting.

For planning purposes, should there be a need for another Operational Period after the operational period that starts tomorrow, the next Objectives Meeting will be September 4th at 10 a.m. here at the EPA Command Post. As discussed last week, it will be highly advantageous if SCDHEC can have a senior official here for that objectives meeting (if it's needed someone from EPA will reach out to ya'll).

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 6:25:00 PM
To: Rick Hollingsworth <cmcrickh@aol.com>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Chief Ricardo Salabarria <Ricardo.salabarria@tampagov.net>
CC: Tanner, Terry <Tanner.Terry@epa.gov>; Kevin Hitron <kevin@cmcenvironment.com>
Subject: Tote Logistics

Gents:

The contact at the Tampa FD for grabbing the Novacool is Chief Ricky Salabarria (email: Ricardo.Salabarria@tampagov.net). His cell number is: 813-321-9273

Please have the SWS deliverer get with Chief Salabarria ASAP to arrange the logistics of picking up the tote today. The pickup location is 3507 East 21st Avenue, Tampa.

Thanks everyone for working hard on this to get it resolved.

Chief Salabarria: The check is in the mail sir, ☺

Ya'll have a good weekend.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Saturday, August 24, 2019 12:50:10 PM
To: reecemc@dhec.sc.gov
Subject: Unified Command Approach

Good Morning Myra:

As discussed previously, EPA's contractors are strategically relocating loads of debris on site to gain better access to mitigate the fire. Simultaneously, we are also disposing of loads of debris at the local Waste Management facility. In the past two days, we have relocated nearly 2,000 tons of debris on site, while at the same time, we have disposed of approximately 450 tons at the local landfill. While it is not our intent to send every load of debris off-site for disposal, I am not opposed to adjusting our operations to send more loads off-site for disposal should SCDHEC wish to incur the disposal costs (tipping fees). We are paying for the equipment, operators, dump-trucks, etc already, in turn, if it's beneficial to SCDHEC to have the loads sent to a landfill instead, I'm sure we can make arrangements to develop a plan that can incorporate that until we mitigate the fire.

I was a little unclear as to what Keith advised in the public meeting the other night, however, I left there with the impression that SCDHEC advised the public that they are going to ensure the waste was removed after we left (not sure who would be paying). If SCDHEC is projected to pay for those costs, in lieu of ya'll having to pay overhead for equipment, operators, trucks, etc to accomplish that, we can partner with ya'll while we are here. In a nutshell, it's totally ya'lls call. Right now we are averaging about 5 to 1 for tonnage disposal on-site verses off-site and incorporating such a plan would require us to alter our operations somewhat, however, we consider ya'll not only a response partner, but a client as well, so if it's beneficial for ya'll, we'll be glad to try and work it out. If you will, just let me know either way.

On a side note, the concrete pumper is on-site and we expect to start fire mitigation operations with it before 0900. If all goes well, this will enable us to continue reducing the amount of water being utilized. Likewise, we received a shipment of Novacool fire-fighting additive this morning and it's application should help us reduce the amount of water being used. Couple those strategic operational changes with the fact that we have now started to dispose of fire-mitigation water in the BJWSA facility, and our mutual goal of reducing the amount of water traveling off-site is being greatly enhanced.

As always, please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Have a great day.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

Share Copy link Download Delete Copy to Version history Previous 138 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Monday, August 26, 2019 9:48:36 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; reecemc@dhec.sc.gov; Henry Porter <porterhj@dhec.sc.gov>; Spurlin, Steve <Spurlin.Steve@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: Water Efficiency
Attachments: IMG_0100.JPG (125.15 KB), ATT00001.txt (6 Bytes), IMG_0101.JPG (142.83 KB), ATT00002.txt (123 Bytes)

These pics were taken around 5:30 near the close of today's operations. They demonstrate the strategic operational initiatives EPA has implemented to increase water usage efficiency, which has resulted in a reduction of fire-mitigation water being generated.

Continued progress!!!

Armstrong, Kathy

From: Russell, Chris
Sent: Monday, August 26, 2019 5:49 PM
To: Tanner, Terry; reecemc@dhec.sc.gov; Henry Porter; Spurlin, Steve; Swanson, Courtney; Byrd, Terrence
Subject: Water Efficiency
Attachments: IMG_0100.JPG; ATT00001.txt; IMG_0101.JPG; ATT00002.txt

These pics were taken around 5:30 near the close of today's operations. They demonstrate the strategic operational initiatives EPA has implemented to increase water usage efficiency, which has resulted in a reduction of fire-mitigation water being generated.

Continued progress!!!

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 2:08:57 PM
To: Ziegler, David <ziegledm@dhec.sc.gov>; MARCUSJM@dhec.sc.gov
Subject: Wetting Agent
Attachments: Novacool MSDS.pdf (433.13 KB)

Good Morning Gentlemen:

David: thanks for facilitating our request in regards to getting DHEC's approval on potentially using various wetting agents as we work to mitigate the fire at Able Contracting.

Mike: thank you for offering to spearhead the review of potential wetting agents. I have attached the MSDS for the first such agent we may consider. If you and your team can let us know if the use of this product would be acceptable by DHEC, I would greatly appreciate it.

In advance, thank you both for partnering with us on this response.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject:

Courtney Swanson, MS
Federal On Scene Coordinator
US EPA Region 4, Emergency Response, Removal, and Prevention Branch
(404) 562-8753 (O)
(470) 728-8238 (M)

Armstrong, Kathy

From: Russell, Chris
Sent: Thursday, August 22, 2019 10:09 AM
To: Ziegler, David; MARCUSJM@dhec.sc.gov
Subject: Wetting Agent
Attachments: Novacool MSDS.pdf

Good Morning Gentlemen:

David: thanks for facilitating our request in regards to getting DHEC's approval on potentially using various wetting agents as we work to mitigate the fire at Able Contracting.

Mike: thank you for offering to spearhead the review of potential wetting agents. I have attached the MSDS for the first such agent we may consider. If you and your team can let us know if the use of this product would be acceptable by DHEC, I would greatly appreciate it.

In advance, thank you both for partnering with us on this response.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Swanson, Courtney <Swanson.Courtney@epa.gov>
Sent: Thursday, August 22, 2019 9:54 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject:

Courtney Swanson, MS
Federal On Scene Coordinator
US EPA Region 4, Emergency Response, Removal, and Prevention Branch
(404) 562-8753 (O)
(470) 728-8238 (M)

MATERIAL SAFETY DATA SHEET

03/06/2006
Rev. 1.9

1. GENERAL

Product identity	: Baum's Novacool UEF
Product application	: Firefighting foam concentrate at 0.4%
Hazard ratings	: Health _1_
	Flammability _0_
	Reactivity _0_
	Personal protection _A_
Manufacturer	: Baum's Castorine Co., Inc. 200 Matthew Street Rome, New York 13440 USA 800-825-8154

2. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous components	OSHA PEL	ACGIH TLY	Other limits recommended	% (optional)
---	---	---	---	---

The product contains no hazardous components as defined by the Occupational Safety and Health Administration's Hazard Communication Standerd 29CFR 1910.1000 and 29CFR 1910.1200

Reportable Quantity (RQ)	
EPA Regulation 40 CFR 3029CERCLA (Section 102)	: No RQ for this product.
Threshold Planning Quantity (TPQ)	
EPA Regulation 40 CFR 355 (SARA Sections 301-304)	: No TPQ for this product.
Toxic Chemical Release Reporting	
EPA Regulation CFR 372 (SARA Section 313)	: NONE.
Hazard Chemical Reporting	
EPA Regulation 40 CFR 370 (SARA Sections 311-312)	: Not applicable.

3. PRODUCT DESCRIPTION / COMPOSITION

Novacool UEF is a blend of organic surfactants being anionic, nonionic and amphoteric surfactants.

4. PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling point	: 212°F, 100°C
Freezing point	: 30°F, -1°C
pH range	: 6.75 - 7.80
Typical pH	: 7.10
Specific gravity range	: 1.020 - 1.050
Typical specific gravity	: 1.036
Percent, volatile by volume (%)	: Water 62.5
Vapour pressure	: Not available
Vapour density	: Not available
Evaporation rate	: Equal to water
Solubility in water	: Complete
Refractive index of concentrate	: 31.0 - 34.0° Brix
Biodegradability	: Fully
Toxicity	: Non-toxic in use solution when applied in accordance with accepted firefighting

procedure

Fluorocarbons	: **NONE**
Shelf life	: 10 years
Appearance & odor	: Light yellow liquid, faintly aromatic

5. REACTIVITY DATA

Stability	: Stable
Incompatability (materials to avoid)	: Strong oxidizers and acids
Hazardous polymerization	: Will not occur
Conditions to avoid	: None known

6. HAZARD DATA

FIRE & EXPLOSION HAZARD

Flash point (method used)	: None
Flammable limits	: Not applicable
Extinguishing media	: Not applicable
Special firefighting procedures	: Not applicable
Unusual fire & explosion hazards	: None

HEALTH HAZARDS (acute and chronic)

Inhalation toxicity	: Vapor may cause irritation
Skin irritation	: Prolonged contact may cause irritation. No irritation anticipated from acute exposure.
Eye irritation	: Alcohol Ether Sulfate 35%, causes mild to moderate eye irritation. No permanent damage anticipated from acute exposure.
Sensitizer	: No.
Dot Corrosive	: No.
Ingestion	: Ingestion of concentrate will cause gasto intestinal irritation. No effects of exposure when product is used at normal dilution of 2 parts Novacool UEF to 500 parts water.

CARCINOGENICITY

NTP	: No.
IARC Monographs	: No.
OSHA Regulated	: No.
Signs and symptoms of exposure	: Redness and irritation to eyes if washout precautions are not taken.

MEDICAL CONDITIONS

Generally aggravated by exposure	: None known.

EMERGENCY FIRST AID PROCEDURES

Inhalation	: Remove to fresh air.
Skin	: For all foreign materials, wash after exposure.
Eyes	: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: Give patient plenty of water, two (2) glasses. Call a physician or poison control center Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician.

7. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:
Absorb with earth, sand or similar inert material and dispose of with solid wastes according to federal, state and local regulations. Flush spill area with water. Product is biodegradable and non-hazardous.

Waste disposal method:
Dispose of with liquid waste according to federal, state and local regulations.

Precautions to be taken in handling and storing:

Transportation data domestic -	DOT Shipping name	: Not regulated
DOT Hazard class -	Hazardous ingredients	: None
	UN Number	: None

Other precautions:

Transportation data export -	Export shipping name	: Not regulated
Export Hazard class -	Hazardous ingredients	: None
	UN Number	: None

8. CONTROL MEASURES

Respiratory protection	: Not required
Ventilation local exhaust	: Not required
Mechanical (general)	: Not required
Protective gloves	: Not required
Eye protection	: Chemical goggles
Other protective clothing or equipment	: None required
Work/hygenic practices	: For all foreign materials, wash after exposure

Share Copy link Download Delete Copy to Version history Previous 140 of 1

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 2:12:22 PM
To: Huyser, Matthew <Huyser.Matthew@epa.gov>; Tanner, Terry <Tanner.Terry@epa.gov>; Negron, Jose <Negron.Jose@epa.gov>; Subash Patel <Patel.Subash@epa.gov>; Swanson, Courtney <Swanson.Courtney@epa.gov>
Subject: You Ain't Gonna Believe This.....

We are in an Objectives Meeting that has a Senior SCDHEC individual in the room representing them, Myra is on the phone, and the EMA Director in the room. Hollaa!!!!

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

Share Copy link Download Delete Copy to Version history

From: Huyser, Matthew <Huyser.Matthew@epa.gov> on behalf of ... thew
Sent on: Tuesday, August 27, 2019 8:34:32 PM
To: Spurlin, Steve <Spurlin.Steve@epa.gov>; T ... ld@epa.gov>
CC: Byrd, Terrence <Byrd.Terrence@epa.gov>; ...
Courtney <Swanson.Courtney@epa.gov>; T ... pa.gov>
Subject: Able - Fwd: Contamination of Okatie River b ... erfund site

#28 Terry Tanner

All, below is an email chain regarding a request from a resident about runoff and confirmation of DHEC's response to the resident.

I received a voicemail message from the resident this morning and an email with essentially the same message. I refrained from responding because I did not want to overstep the work of the current IMT and determined that we could address this at 0900 tomorrow.

Mike Marcus with DHEC has already responded to the resident and provided contact information for further follow up. From the sound of it there is no need for us to respond. I am forwarding this for your awareness.

Matthew J. Huyser, PE - On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4 | 61 Forsyth St SW | Atlanta, Georgia | 30303
Emergency Response Removal and Prevention Branch (ERRPB)
office: **404-562-8934** | cell: **678-427-8829** | fax:**404-562-8699**
epaosc.org

Begin forwarded message:

From: "Shealy, Renee" <shealyrg@dhec.sc.gov>
Date: August 27, 2019 at 3:54:23 PM EDT
To: "Huyser, Matthew" <huyser.matthew@epa.gov>
Cc: "Marcus, Mike" <MARCUSJM@dhec.sc.gov>, Able Fire <ablefire@dhec.sc.gov>
Subject: Fw: Contamination of Okatie River by water run off from Able Superfund site

Matt,

Dr. Marcus spoke with Mrs. Palmer and her husband today for about 30 minutes. They were very satisfied and appreciative of the call. They have both his office and cell if they need additional information.

Thanks!
Renee

From: Margaret Palmer <margaret7palmer@gmail.com>

From: Miller, Angela <Miller.Angela@epa.gov> on behalf of Miller, Angela
Sent on: Tuesday, September 3, 2019 2:06:12 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>
CC: Tolliver, Ronald <Tolliver.Ronald@epa.gov>; Miller, Angela <Miller.Angela@epa.gov>
Subject: Able Contracting Fire - contact list for relocated residents
Attachments: Able Fire Schinger Avenue Residents - EPA revised contact List.docx (15.39 KB)

Good morning Terry!
Attached is a revised list of the relocated residents. We have added one more to list that is a resident of the area (now we have 11 households). He had the proper documentation required by the Temporary Relocation Guidance. We worked with Steve Spurlin who was the IC at the time for final approval. When he showed up to sign his relocation agreement and get his per diem money, he stated that he has 3 children that stay with him 2 days a week, again he had the proper documentation. We did not pay him per diem for the children because we were not prepared, but told him that I would look into it and we will take care of that when we return.

You will also see a well number beside some of the residents. That is a number from DHEC that they were using when they sampled. Steve wanted it added to the list to help me. Let me know if you would like changes or additions to the list or if you have questions.

All the best,
Angela R. Miller
US EPA, Community Involvement Coordinator
Office of the Regional Administrator
61 Forsyth Street, SW
Atlanta, GA 30303
Office: (404) 562-8561
Cell: (678) 575-8132
Email: miller.angela@epa.gov

Armstrong, Kathy

From: Miller, Angela
Sent: Tuesday, September 03, 2019 10:06 AM
To: Tanner, Terry
Cc: Tolliver, Ronald; Miller, Angela
Subject: Able Contracting Fire - contact list for relocated residents
Attachments: Able Fire Schinger Avenue Residents - EPA revised contact List.docx

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Email: miller.angela@epa.gov

Schinger Avenue Residents (11 households)
contact information and drinking water source

1. **405C Schinger Ave. - WELL 4 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

2. **405B Schinger Ave. - WELL 4 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

3. **405 A Schinger Ave - WELL 4 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

4. **452B Schinger Ave. -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

5. **452A Schinger Ave. -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

6. **394 Schinger Ave.- WELL 2 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

7. **mobile home behind 394 Schinger Ave.- WELL 2 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

8. **382 Schinger Avenue - Well # not known -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

9. **352 Schinger Ave. - WELL 3 -** (b)(6) Personal Privacy
(b)(6) Personal Privacy

10. **64 Mackinlay Way -** (b)(6) Personal Privacy

11. **390 B Schinger Ave. –** (b)(6) Personal Privacy
(b)(6) Personal Privacy

1. Incident Name

Able Contracting Fire

3. Incident Objectives:

1) Ensure health and safety of respo
2) Continue fire mitigation operation
3) Maintain air quality monitoring.
4) Execute outreach plan to notify co
5) Maintain interoperable communic
6) Continue to mitigate offsite impac
7) Evaluate ceasing air monitoring n
8) Develop sampling plan and data
9) Collect air samples from equipme

3. Incident Name
Able Contracting Fire

Chris Russell

ICS 204-EPA
DIVISION ASSIGNMENT LIST

3. Incident Name

Able Contracting Fire

5. Operations Personnel

Operations Chief	Chris Russell
Branch Director	

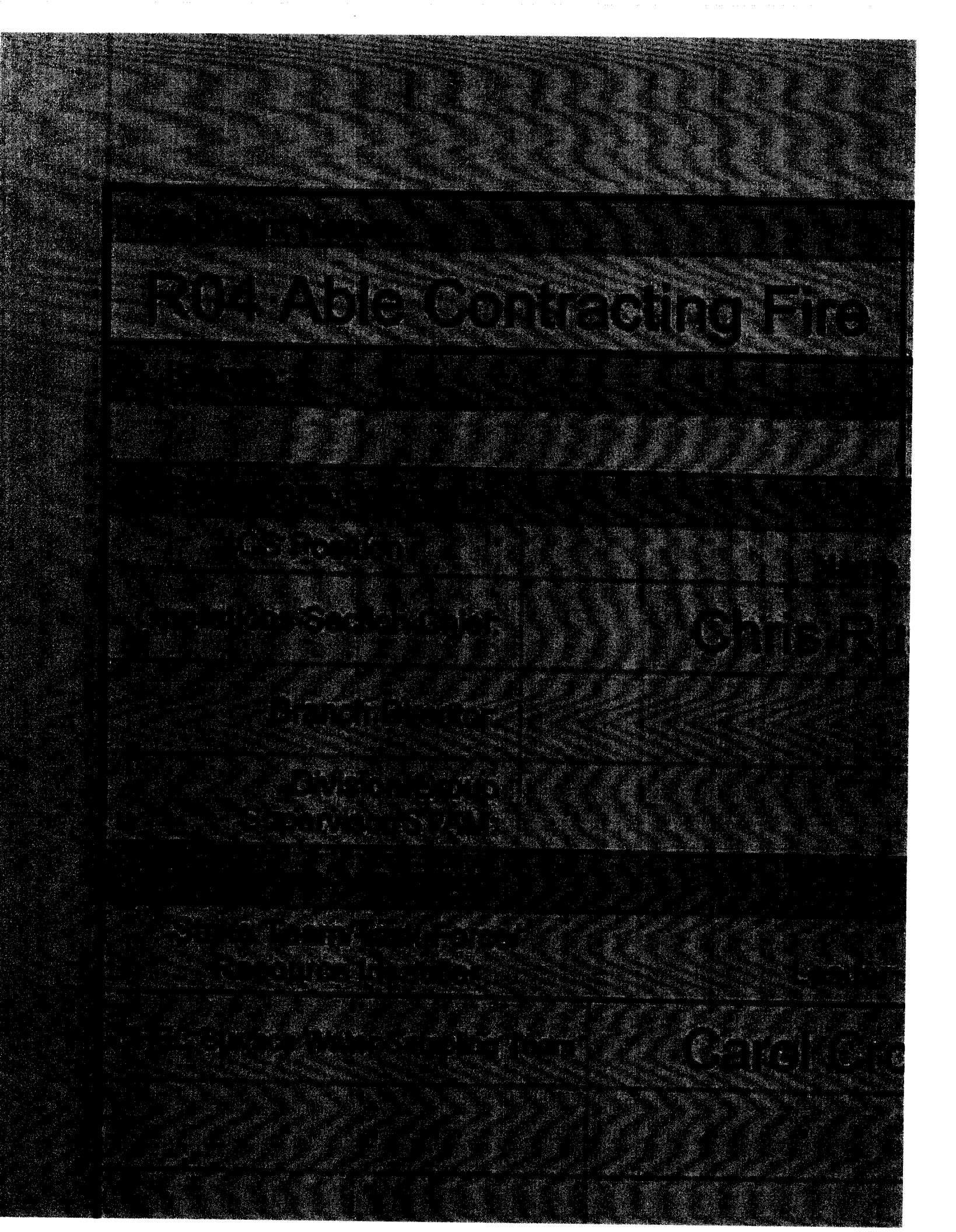
6. Resources Assigned

Strike Team/Task Force/ Resource Designator	
Fire Mitigation Group	Rick H

R04 Able Contracting Fire

Chris R

Carol Cr



Date	Time
9	0700
	0700

INCIDENT COMMUNICATIONS PLAN

ICS 205A

r (Cell)	Agency / Affiliation	Email Address
29	USEPA	tanner.terry@epa.gov
26	USCG	
26	USCG	
30	USCG	
31	USCG	
51	USEPA	tolliver.ronald@epa.gov
32	USEPA	miller.angela@epa.gov
75	USEPA	russell.chris@epa.gov
14	ERRS	cmcrickh@aol.com
38	USEPA	swanson.courtney@epa.gov
36	START	paul.prys@tetratech.com
20	START	chris.jones@tetratech.com
3	START	laura.lawrence@tetratech.com

1. Incident Name:	2. Operatio
Able Contracting Fire	From: 070
	To: 070

3a. Incident Location: 472 Schinger Ave. Ridg

4. Incident/Unified Command:	
Terry Tanner	
7. Division/Group Supervisor:	

10. Team Members / Tasks (Box 24):

Names	Task # (Box 24)	
1 Charles Smith		
2 Edmundo Gallegos		
3 Derrick Weatherly		

11. SITE MAP	Attached: Yes: ■ No: ☐	Includes:

HAZARD ANALYSIS

16. Chemical Name(s)	Action Levels	
1) Hydrogen Cyanide	2.35 ppm TWA/5 ppm	
2) Carbon Monoxide	35 ppm	
3) Hydrogen Sulfide	10 ppm	
4) VOCs	5.0 ppm	
17. Instruments	☐ %O [illegible]	
	☐ %LEL [illegible]	
	☐ Radiation/[illegible]	
18. Monitoring Frequency	☐ 24 hr	
19. Containers	Types / Quantities / [illegible]	

20. Physical Hazards		
	☐ Confined Space	☐ [illegible]
	☐ Slips/Trips/Falls	☐ [illegible]
	☐ Excavation	☐ [illegible]

21a. Hazards	Chemical				[illegible]
	1	2	3	4	[illegible]
Explosive	☐	☐	☐	☐	Eyes

Pearlstine Dr
U-Haul
Neighborhood Dealer

1. Incident Name R04 Able Contracting Fire	2. Oper 0700 21

3. Meeting S	
Date/Time	Meeting Name
0700 Daily	Operations Briefing
0800 Daily	Objectives Meeting
0900 Daily	IC/REOC Update Call
1400 Friday	Tactics Meeting
1600 Friday	Planning Meeting

Spot forecast for Able Construc
National Weather Service Charle
756 AM EDT Tue Aug 20 2019

Forecast is based on forecast m
If conditions become unexpected
Service.

.DISCUSSION...
Atlantic high pressure and a
late week when a cold front co

Fog potential for tonight: Low

.WEDNESDAY...

Sky/weather.....Partly sun
thunderstorm
showers
Chance of pcpn.....30 percent
Max temperature.....Around 90.

Inversion Begin.....2000

TIME (EDT)	6PM	7PM	8PM	9PM	1
Sky (%).....	57	55	52	50	4
Weather type.....	RW	RW	RW	RW	R
Tstm cov.....	CHC	CHC	CHC	CHC	C
Chc of pcpn (%).	30	30	30	30	3
Temp.....	87	84	82	80	7
RH.....	65	74	79	85	8
Apparnt tmp (F)..	95	92	89	85	7
Surface wnd dir.	S	S	S	S	S
Surface wnd spd.	6	6	6	4	4
Surface wnd gst.					
Mix hgt (kft)...	3.6	2.2	0.8	0.7	0
Transp wind dir.	S	S	S	S	S
Transp wind spd.	8	8	8	6	6

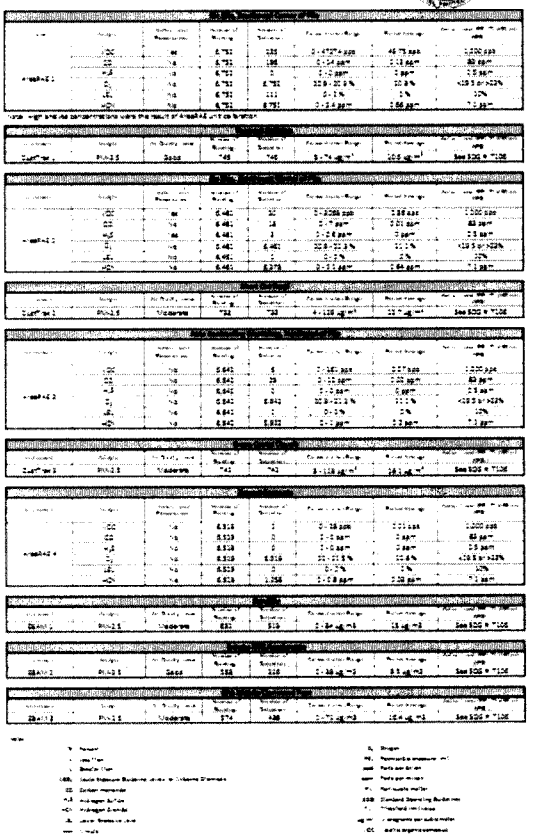
THURSDAY...

Open Share Copy link Print Download Delete Copy to Version history

Air Monitoring Summary Tables

Project Name: Able Contracting Fire Site

From 8/20/19 7:00 To: 8/20/19 19:00



View PDF controls

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: ***8/20/19 19:00*** ***To:*** ***8/21/19 7:00***

On Site, Northwest Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	385	2	0 - 312 ppb	1.06 ppb	1,000 ppb
	CO	No	385	2	0 - 7 ppm	0.03 ppm	83 ppm
	H_2S	No	385	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	385	385	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	385	110	0 - 2 %	0.6 %	10%
	HCN	No	385	332	0 - 1.8 ppm	0.55 ppm	7.1 ppm

Particulate Collection

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Moderate	741	741	2 - 117 µg/m³	12.2 ug/m3	See SOG #: T106

On Site, Northwest Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	381	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	381	60	0 - 12 ppm	0.71 ppm	83 ppm
	H_2S	Yes	381	8	0 - 0.6 ppm	0.01 ppm	0.5 ppm
	O_2	No	381	381	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	381	0	0 - 0 %	0 %	10%
	HCN	No	381	289	0 - 3.7 ppm	0.81 ppm	7.1 ppm

Site Gate Entry

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	480	287	0 - 25 µg/m³	3.2 ug/m3	See SOG #: T106

Able Contracting Warehouse, Northwest of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	387	7	0 - 172 ppb	0.73 ppb	1,000 ppb
	CO	No	387	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	387	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	387	387	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	387	0	0 - 0 %	0 %	10%
	HCN	No	387	0	0 - 0 ppm	0 ppm	7.1 ppm

Site Office Cluster

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	692	692	3 - 63 µg/m³	7.5 ug/m3	See SOG #: T106

Forward Command

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	387	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	387	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	387	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	387	387	20.5 - 20.9 %	20.7 %	<19.5 or >23%
	LEL	No	387	0	0 - 0 %	0 %	10%
	HCN	No	387	0	0 - 0 ppm	0 ppm	7.1 ppm

Bell City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	736	229	0 - 53 ug/m3	9.4 ug/m3	See SOG #: T106

Brooks Hill Apartments

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	740	456	0 - 34 ug/m3	7.9 ug/m3	See SOG #: T106

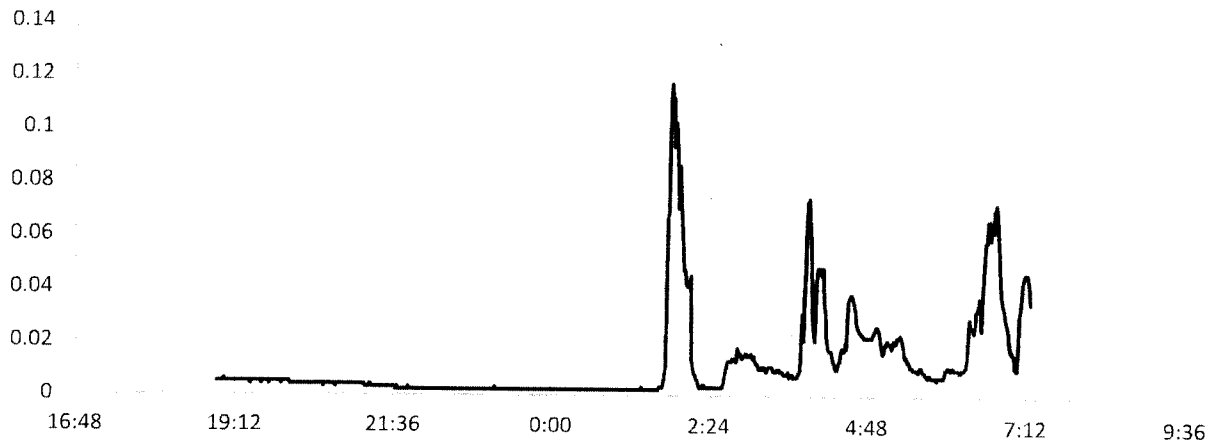
EPA Mobile Command Post

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	468	135	0 - 61 ug/m3	9 ug/m3	See SOG #: T106

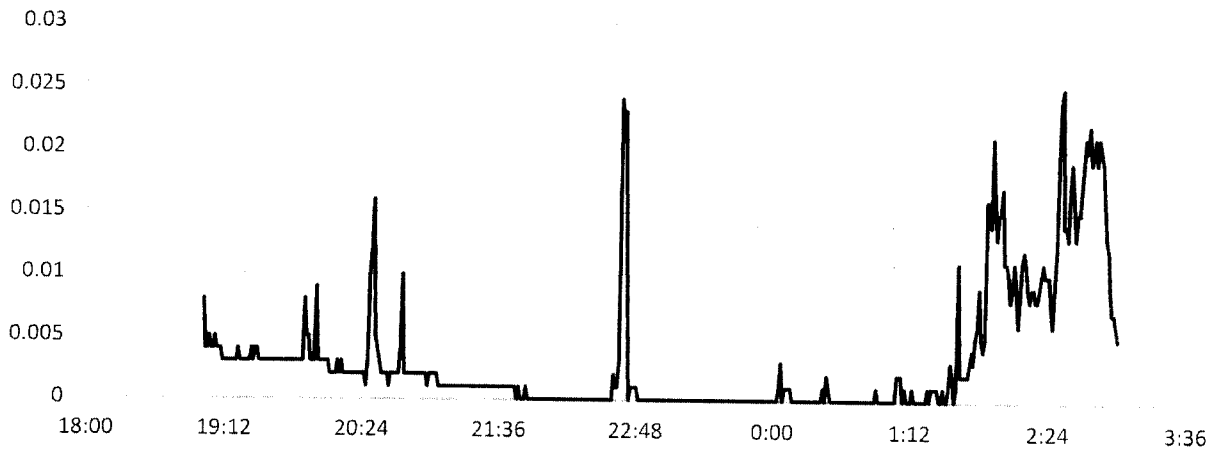
Notes:

- % Percent
- < Less than
- > Greater than
- AEGL Acute Exposure Guideline Levels for Airborne Chemicals
- CO Carbon monoxide
- H_2S Hydrogen Sulfide
- HCN Hydrogen Cyanide
- LEL Lower Explosive Level
- min Minute
- O_2 Oxygen
- PEL Permissible exposure limit
- ppb Parts per billion
- ppm Parts per million
- PM Particulate matter
- SOG Standard Operating Guidelines
- TLV Threshold limit value
- µg/m³ Micrograms per cubic meter
- VOC Volatile organic compoud

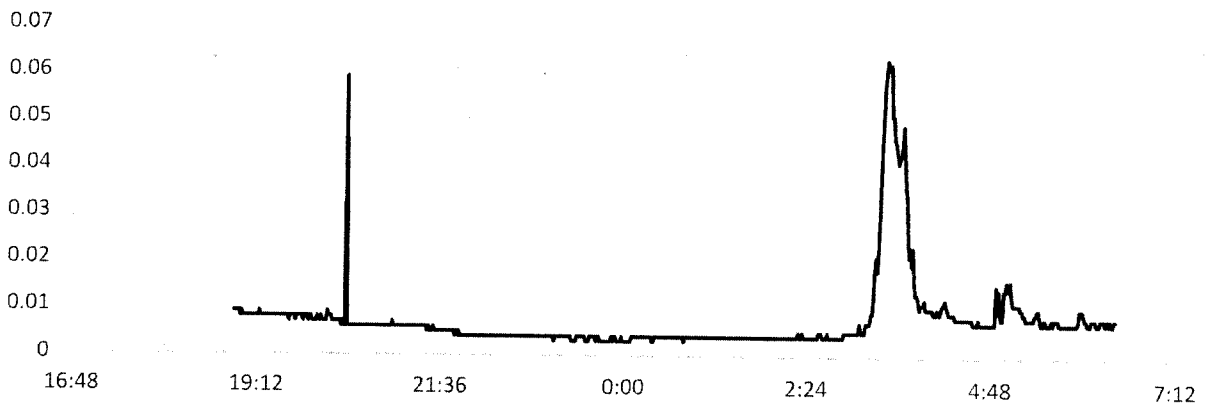
8/20/19 NIGHT Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



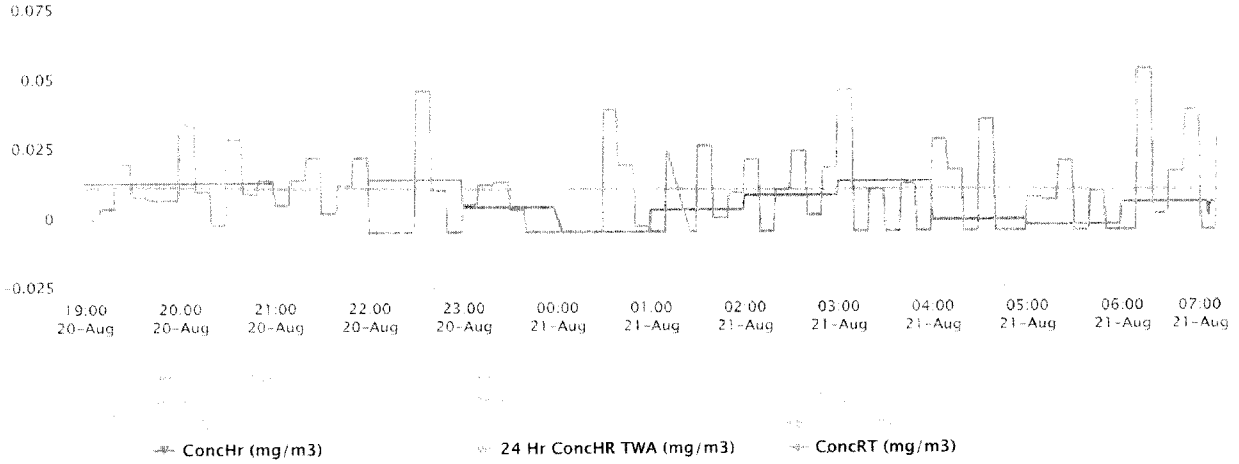
8/20/19 NIGHT Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



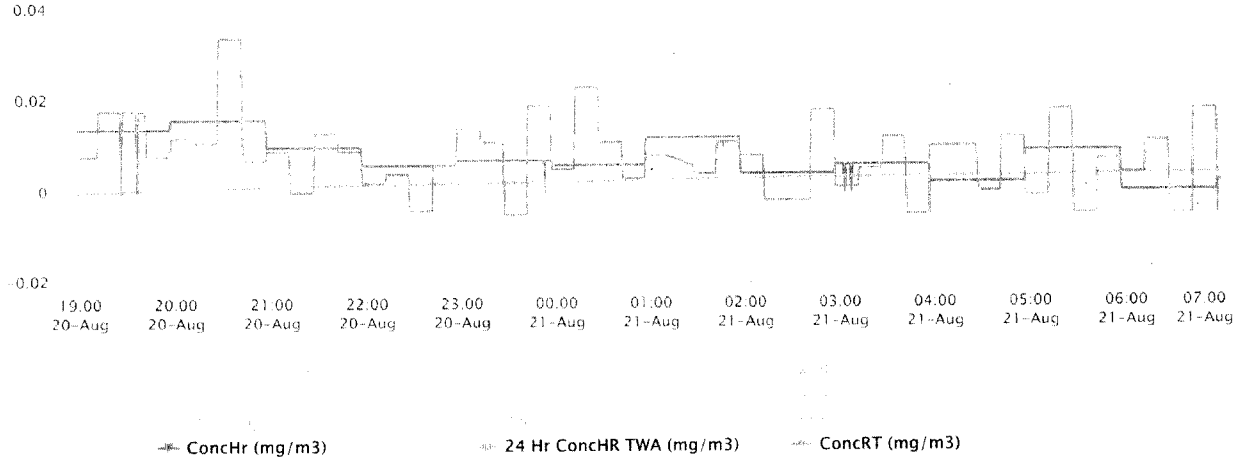
8/20/19 NIGHT Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



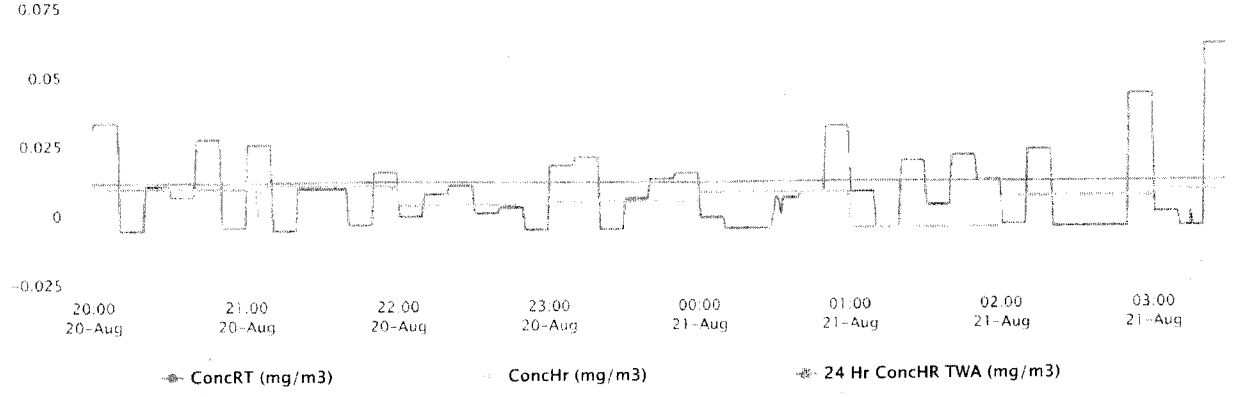
8/20/19 NIGHT Data for EBAM 1 (ConcRT) – Sun City



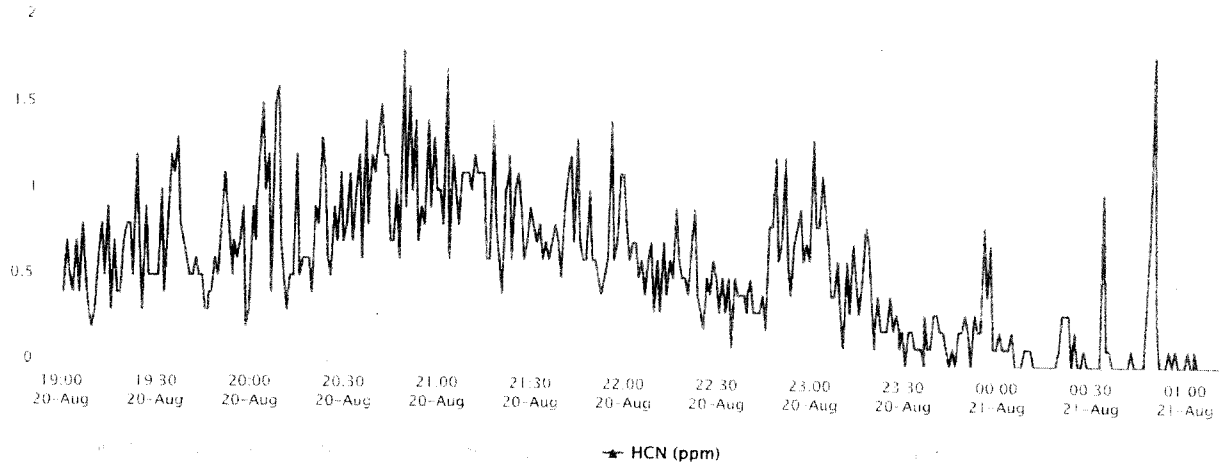
8/20/19 NIGHT Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



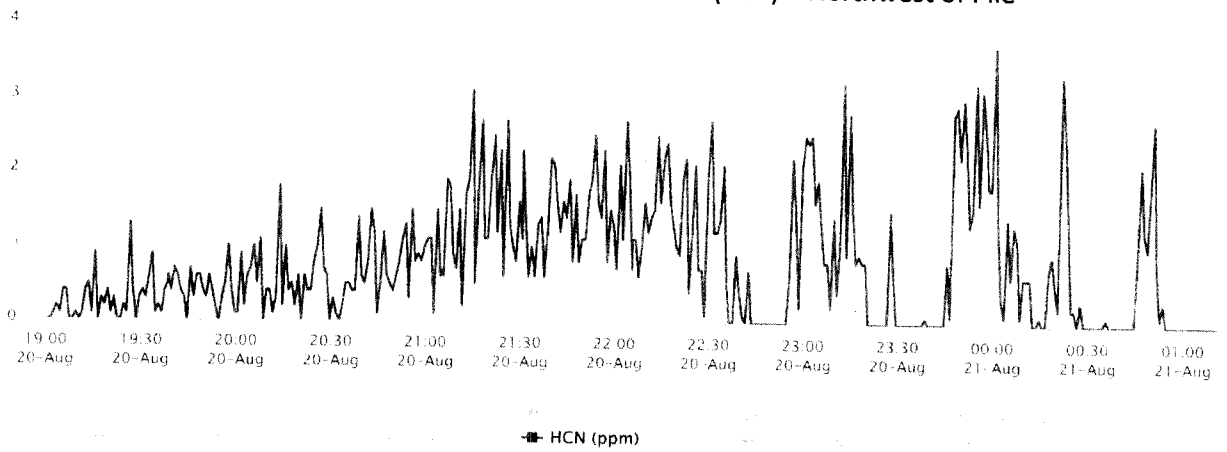
8/20/19 NIGHT Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



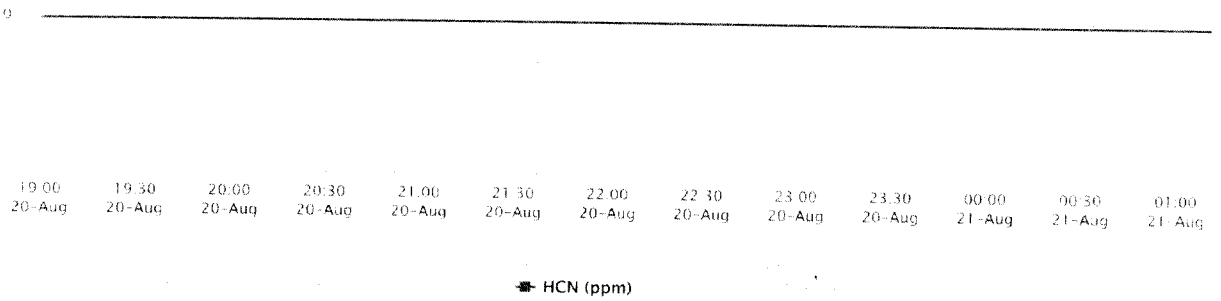
8/20/19 NIGHT Data for AREARAE PRO 1 (HCn) – Southwest of Pile



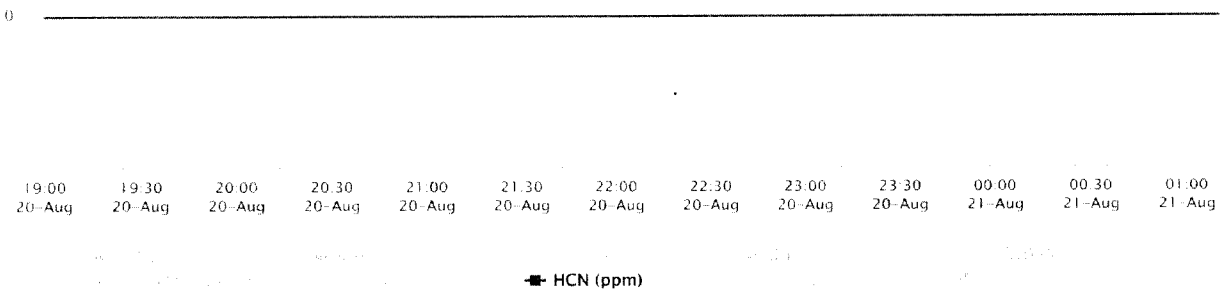
8/20/19 NIGHT Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/20/19 NIGHT Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/20/19 NIGHT Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	**40.1-80.0**	**12.1-35.4**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive groups	**80.1-175.0**	**35.5-55.4**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/21/19 7:00** ***To:*** **8/21/19 19:00**

On Site, Northwest Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	712	3	0 - 205 ppb	0.45 ppb	1,000 ppb
	CO	No	712	3	0 - 6 ppm	0.02 ppm	83 ppm
	H_2S	No	712	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	712	712	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	712	0	0 - 0 %	0 %	10%
	HCN	No	712	552	0 - 2.3 ppm	0.28 ppm	7.1 ppm

On Site, Northeast Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	719	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	719	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	719	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	719	719	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	719	0	0 - 0 %	0 %	10%
	HCN	No	719	154	0 - 2 ppm	0.06 ppm	7.1 ppm

Street On Board

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Moderate	736	736	1 - 236 µg/m³	15.2 ug/m3	See SOG #: T106

Able Contracting Warehouse, Northwest of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	Yes	716	56	0 - 1828 ppb	8.49 ppb	1,000 ppb
	CO	Yes	716	21	0 - 197 ppm	0.96 ppm	83 ppm
	H_2S	Yes	716	11	0 - 3.3 ppm	0.016 ppm	0.5 ppm
	O_2	No	716	716	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	716	537	0 - 3 %	1.6 %	10%
	HCN	Yes	716	134	0 - 13.2 ppm	0.09 ppm	7.1 ppm

Able Control Guard

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	740	740	4 - 40 µg/m³	9.2 ug/m3	See SOG #: T106

Forward Operate

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	711	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	711	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	711	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	711	711	20.5 - 21.3 %	20.9 %	<19.5 or >23%
	LEL	No	711	0	0 - 0 %	0 %	10%
	HCN	No	711	409	0 - 1.2 ppm	0.32 ppm	7.1 ppm

Sun City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	748	250	0 - 93 ug/m3	10.6 ug/m3	See SOG #: T106

Able Yard Northwest

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	697	111	0 - 41 ug/m3	6.1 ug/m3	See SOG #: T106

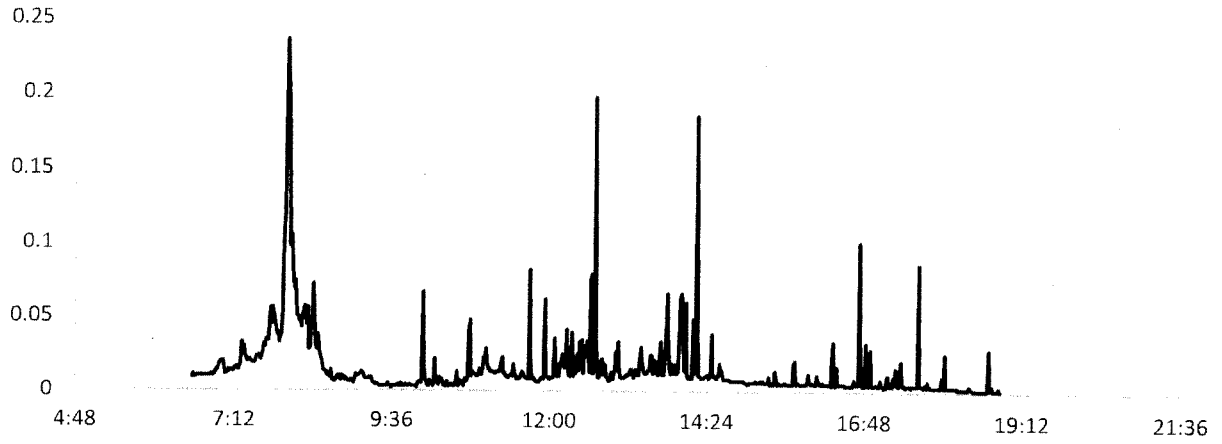
Able Yard Southeast

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	730	209	0 - 96 ug/m3	11.5 ug/m3	See SOG #: T106

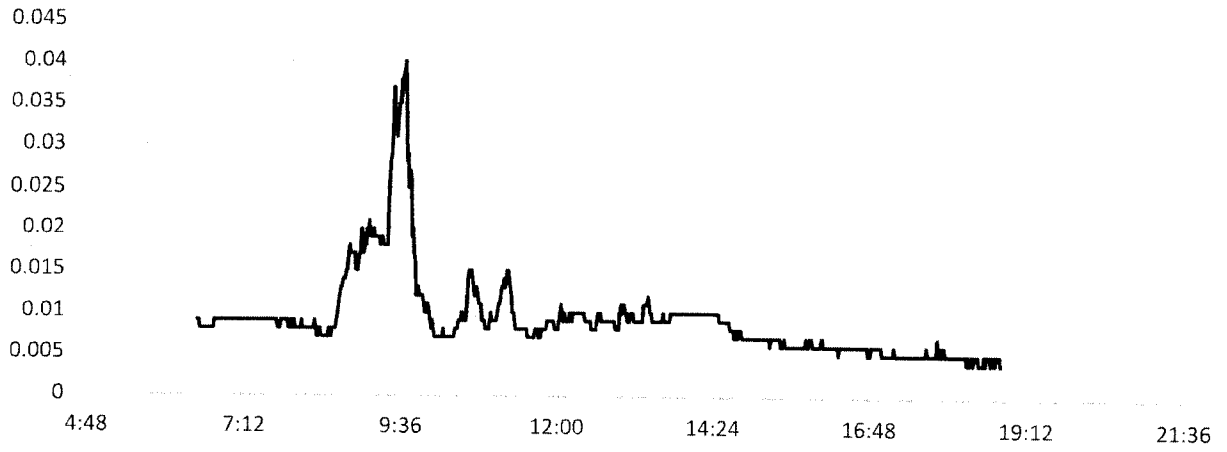
Notes:

%	Percent
<	Less than
>	Greater than
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals
CO	Carbon monoxide
H_2S	Hydrogen Sulfide
HCN	Hydrogen Cyanide
LEL	Lower Explosive Level
min	Minute
O_2	Oxygen
PEL	Permissible exposure limit
ppb	Parts per billion
ppm	Parts per million
PM	Particulate matter
SOG	Standard Operating Guidelines
TLV	Threshold limit value
µg/m³	Micrograms per cubic meter
VOC	Volatile organic compoud

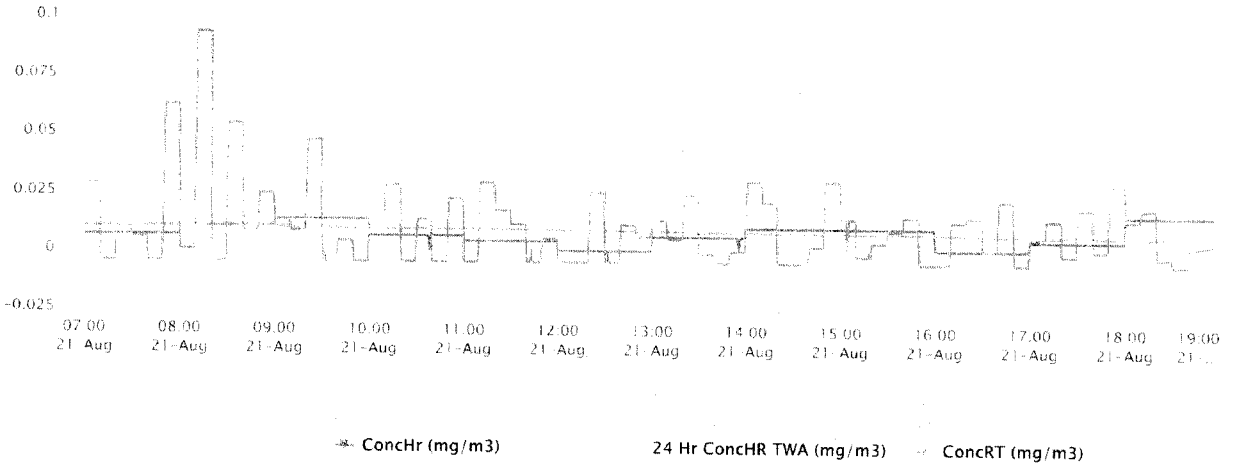
8/21/19 DAY Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



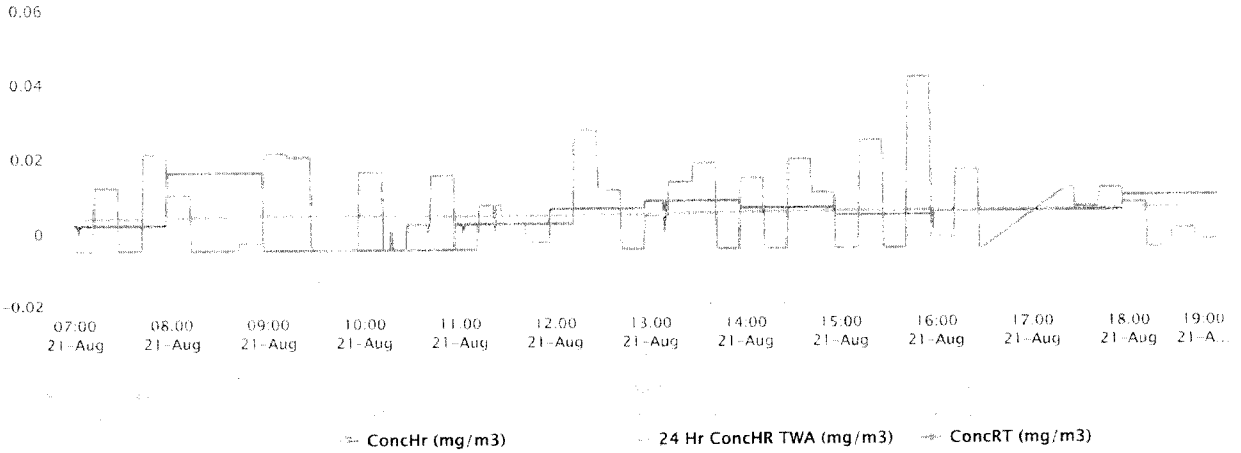
8/21/19 DAY Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



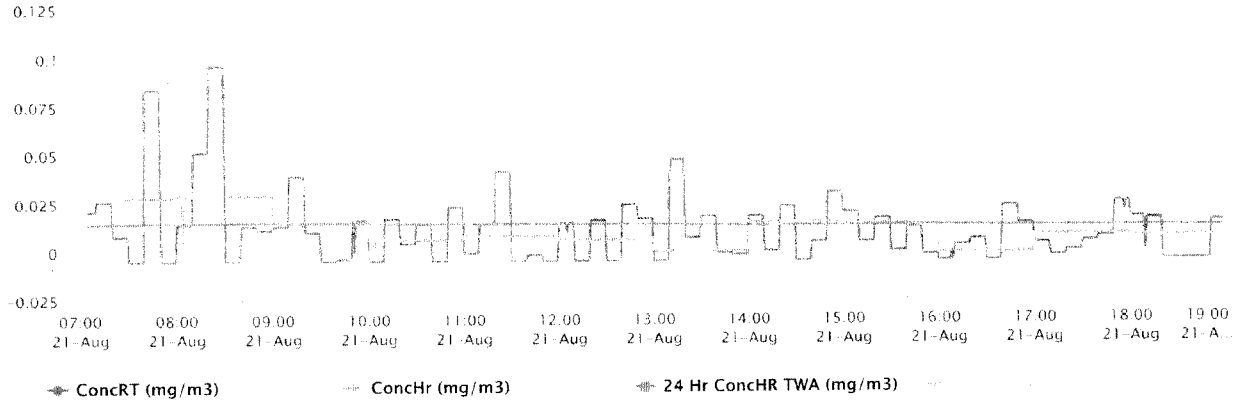
8/21/19 DAY Data for EBAM 1 (ConcRT) – Sun City



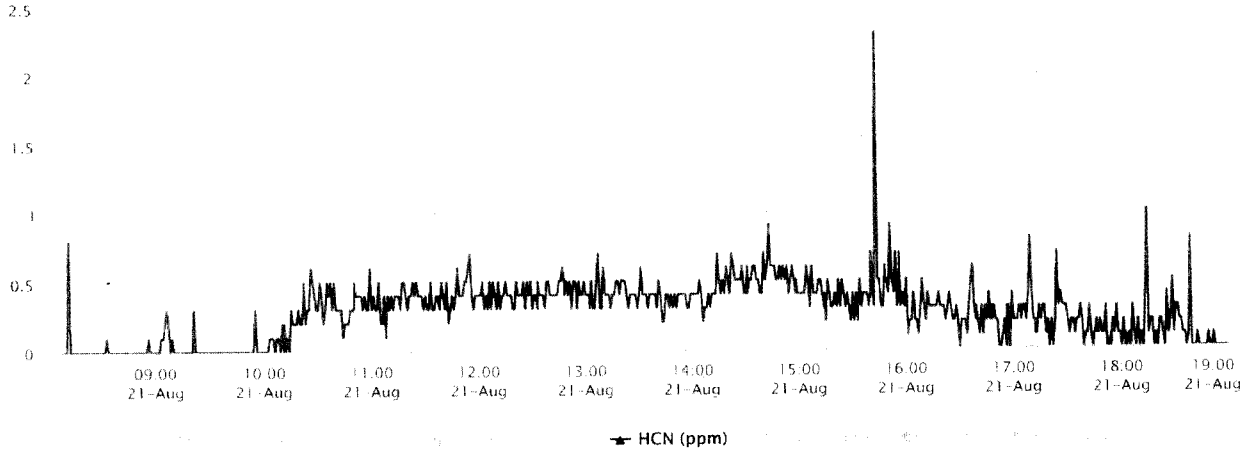
8/21/19 DAY Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



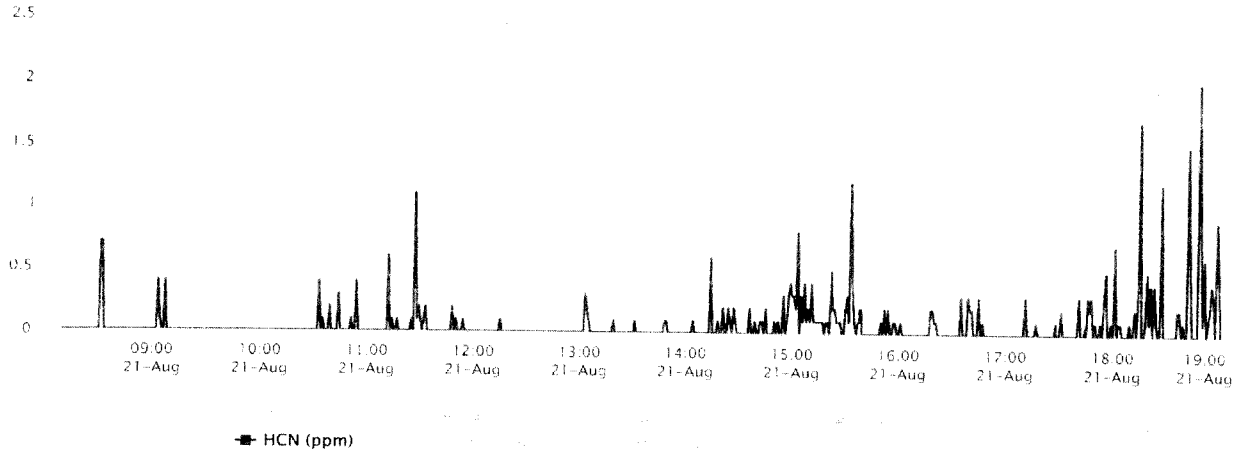
8/21/19 DAY Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



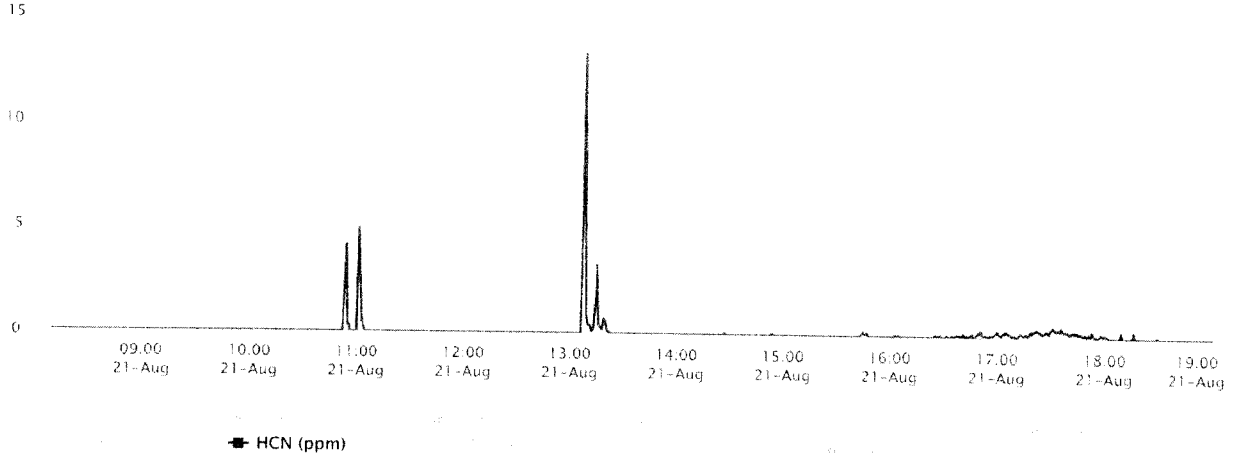
8/21/19 DAY Data for AREARAE PRO 1 (HCn) – Southwest of Pile



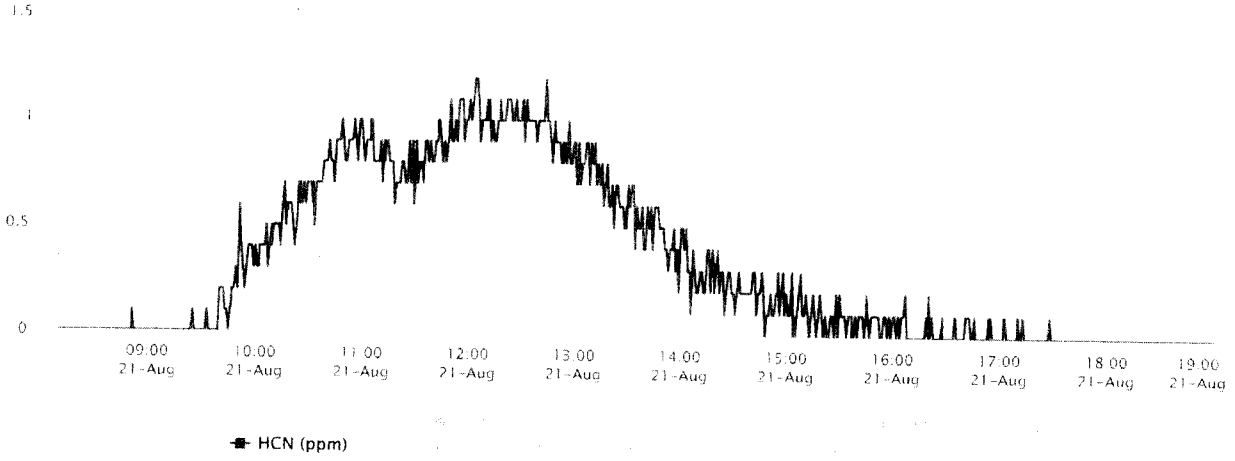
8/21/19 DAY Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/21/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/21/19 DAY Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	**40.1-80.0**	**12.1-35.4**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive groups	**80.1-175.0**	**35.5-55.4**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/22/19 7:00** ***To:*** **8/22/19 19:00**

On Site, Southwest Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	Yes	770	14	0 - 2177 ppb	9.52 ppb	1,000 ppb
	CO	No	770	5	0 - 13 ppm	0.04 ppm	83 ppm
	H_2S	Yes	770	10	0 - 2.1 ppm	0.015 ppm	0.5 ppm
	O_2	No	770	770	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	770	0	0 - 0 %	0 %	10%
	HCN	Yes	770	462	0 - 9.4 ppm	0.32 ppm	7.1 ppm

Pavement Collection

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Moderate	681	681	4 - 51 µg/m³	13 ug/m3	See SOG #: T106

On Site, Northeast Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	771	6	0 - 416 ppb	1.64 ppb	1,000 ppb
	CO	No	771	27	0 - 10 ppm	0.14 ppm	83 ppm
	H_2S	No	771	1	0 - 0.5 ppm	0.001 ppm	0.5 ppm
	O_2	No	771	771	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	771	0	0 - 0 %	0 %	10%
	HCN	No	771	89	0 - 1.2 ppm	0.04 ppm	7.1 ppm

Shark Cut/Bend

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	527	527	4 - 107 µg/m³	11.1 ug/m3	See SOG #: T106

Able Contracting, Southwest, Northeast of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	767	17	0 - 215 ppb	1.5 ppb	1,000 ppb
	CO	No	767	6	0 - 18 ppm	0.05 ppm	83 ppm
	H_2S	No	767	1	0 - 0.5 ppm	0.001 ppm	0.5 ppm
	O_2	No	767	767	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	767	767	2 - 3 %	2.4 %	10%
	HCN	No	767	14	0 - 4.1 ppm	0.01 ppm	7.1 ppm

Grace Canal/Bend

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	682	682	3 - 47 µg/m³	7.6 ug/m3	See SOG #: T106

Forest Concrete

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	770	6	0 - 52 ppb	0.16 ppb	1,000 ppb
	CO	No	770	2	0 - 3 ppm	0.01 ppm	83 ppm
	H_2S	No	770	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	770	770	20.5 - 21.3 %	20.8 %	<19.5 or >23%
	LEL	No	770	0	0 - 0 %	0 %	10%
	HCN	No	770	394	0 - 1.5 ppm	0.28 ppm	7.1 ppm

Sun City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	754	205	0 - 90 ug/m3	11.8 ug/m3	See SOG #: T106

Brooks Mill Apartments

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	650	189	0 - 47 ug/m3	9.9 ug/m3	See SOG #: T106

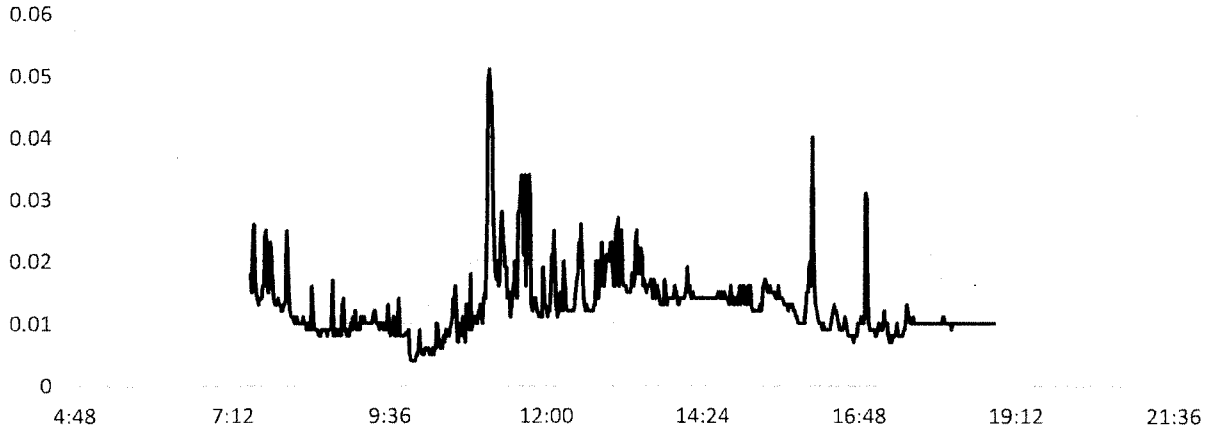
EPA Mobile Command Post

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	739	237	0 - 153 ug/m3	11.6 ug/m3	See SOG #: T106

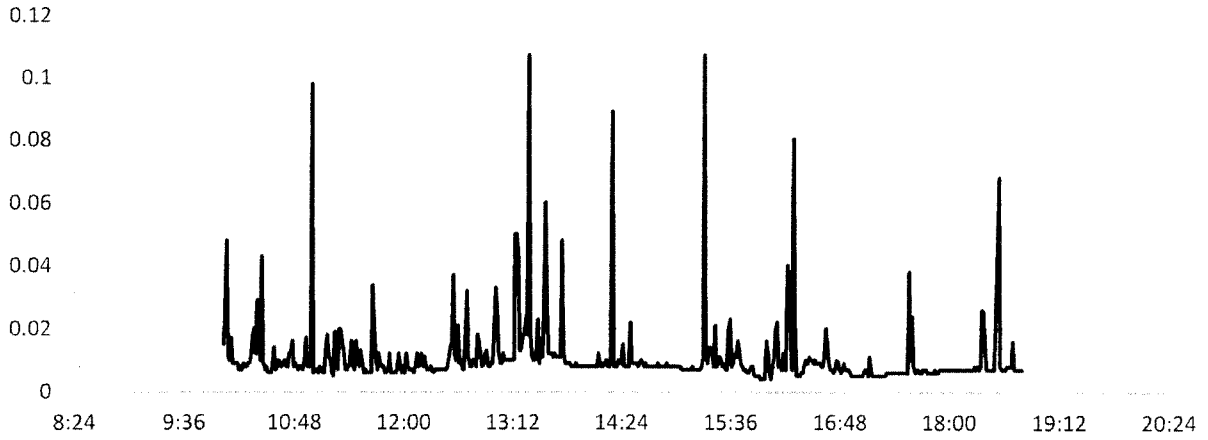
Notes:

%	Percent	O_2	Oxygen
<	Less than	PEL	Permissible exposure limit
>	Greater than	ppb	Parts per billion
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	ppm	Parts per million
CO	Carbon monoxide	PM	Particulate matter
H_2S	Hydrogen Sulfide	SOG	Standard Operating Guidelines
HCN	Hydrogen Cyanide	TLV	Threshold limit value
LEL	Lower Explosive Level	µg/m³	Micrograms per cubic meter
min	Minute	VOC	Volatile organic compoud

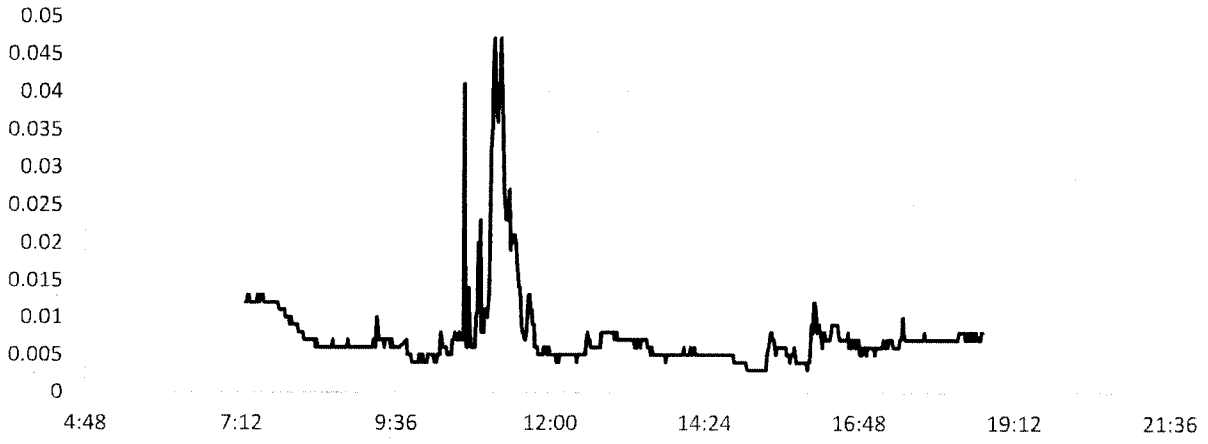
8/22/19 DAY Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



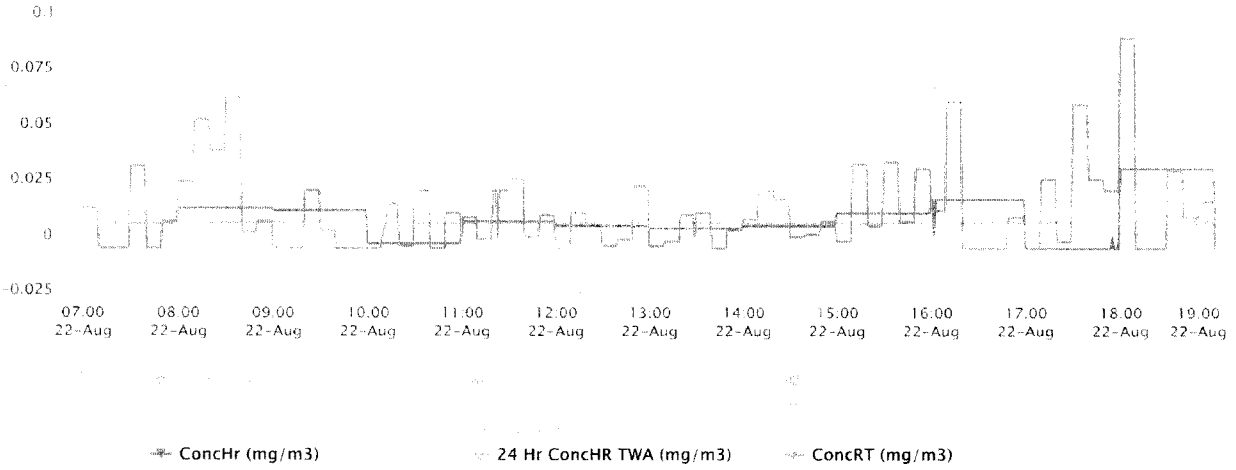
8/22/19 DAY Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



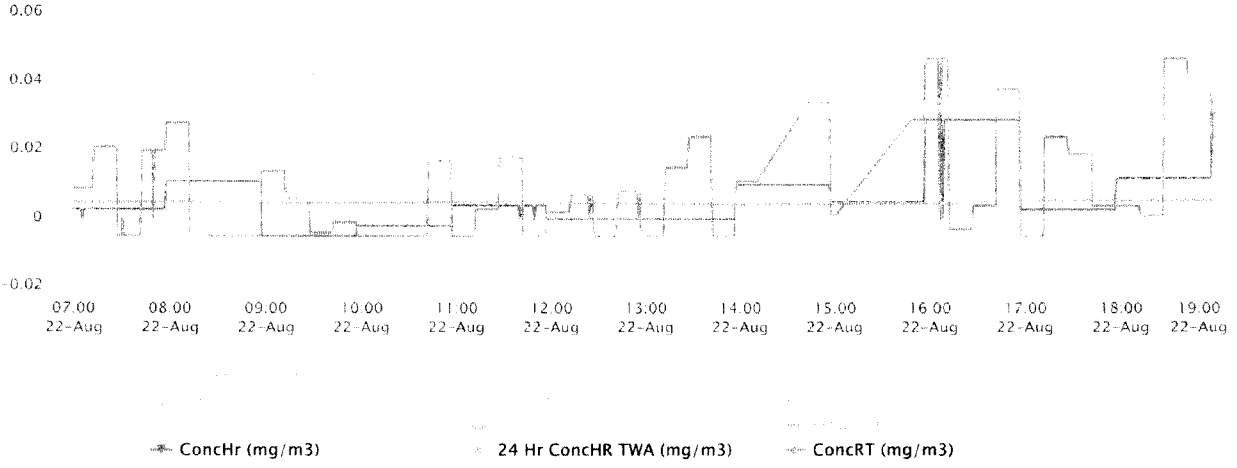
8/22/19 DAY Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



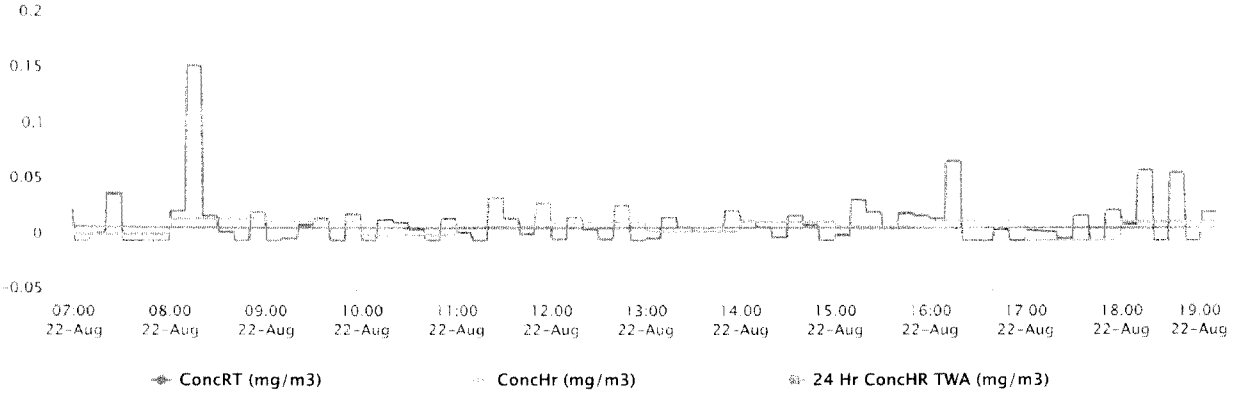
8/22/19 DAY Data for EBAM 1 (ConcRT) – Sun City



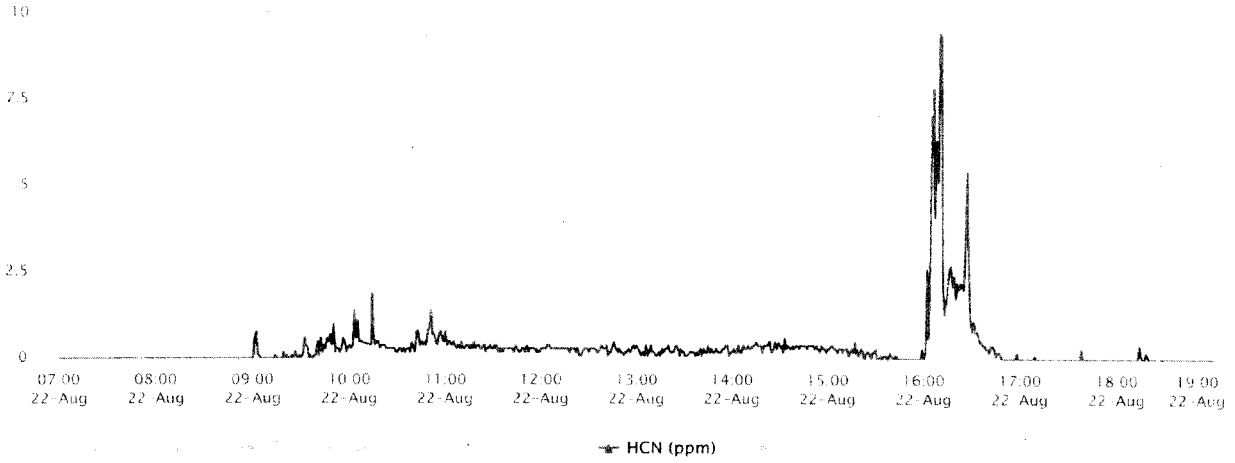
8/22/19 DAY Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



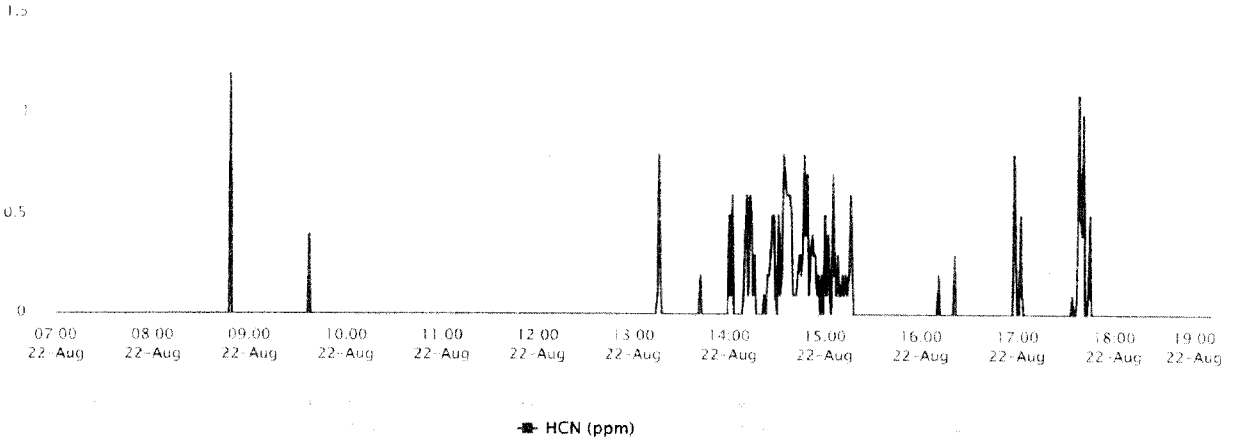
8/22/19 DAY Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



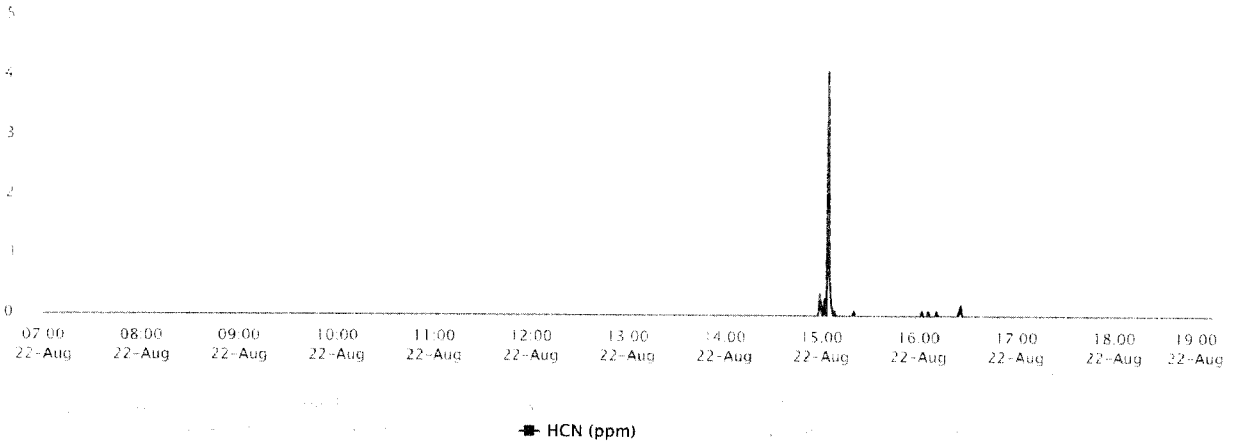
8/22/19 DAY Data for AREARAE PRO 1 (HCn) – Southwest of Pile



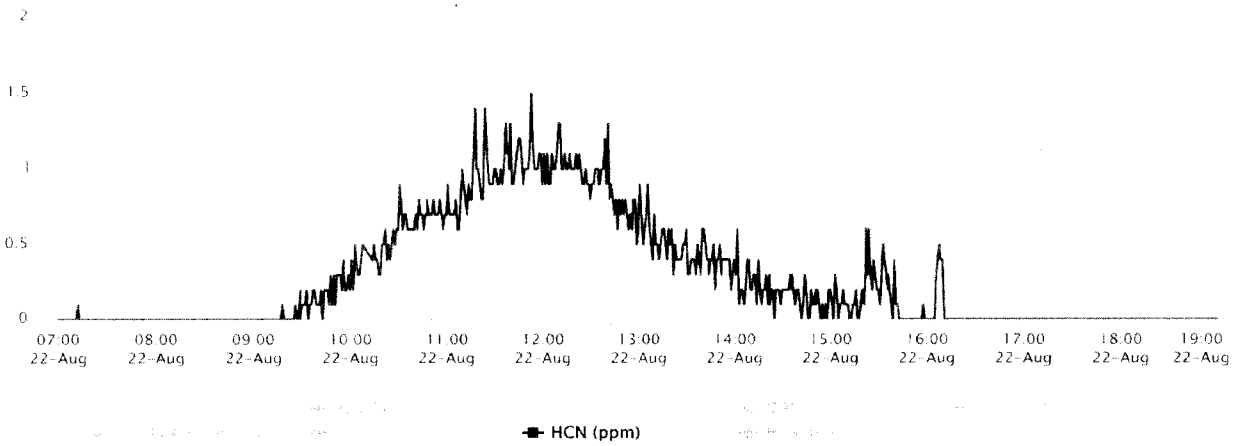
8/22/19 DAY Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/22/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/22/19 DAY Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	**40.1-80.0**	**12.1-35.4**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive groups	**80.1-175.0**	**35.5-55.4**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: ***8/22/19 19:00*** ***To:*** ***8/23/19 7:00***

On Site, Southeast Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	758	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	758	1	0 - 2 ppm	0 ppm	83 ppm
	H_2S	No	758	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	758	758	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	758	0	0 - 0 %	0 %	10%
	HCN	No	758	4	0 - 1.1 ppm	0 ppm	7.1 ppm

Perimeter Collection

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Moderate	747	747	5 - 72 µg/m³	13.2 ug/m3	See SOG #: T106

On Site, Northwest Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	762	1	0 - 36 ppb	0.05 ppb	1,000 ppb
	CO	No	762	62	0 - 19 ppm	0.5 ppm	83 ppm
	H_2S	Yes	762	3	0 - 0.7 ppm	0.002 ppm	0.5 ppm
	O_2	No	762	762	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	762	0	0 - 0 %	0 %	10%
	HCN	No	762	8	0 - 1.7 ppm	0.01 ppm	7.1 ppm

Able Contracting

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	746	746	3 - 44 µg/m³	7 ug/m3	See SOG #: T106

Able Contracting Building, Northeast of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	762	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	762	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	762	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	762	762	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	762	762	2 - 3 %	2.4 %	10%
	HCN	No	762	0	0 - 0 ppm	0 ppm	7.1 ppm

Green Street Church

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Moderate	735	735	1 - 159 µg/m³	16 ug/m3	See SOG #: T106

Forrest Cemetery

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	757	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	757	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	757	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	757	757	20.4 - 20.5 %	20.5 %	<19.5 or >23%
	LEL	No	757	0	0 - 0 %	0 %	10%
	HCN	No	757	60	0 - 0.8 ppm	0.02 ppm	7.1 ppm

Site Gate

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Moderate	743	245	0 - 109 ug/m3	14.1 ug/m3	See SOG #: T106

Brooks Hill Apartments

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	753	438	0 - 41 ug/m3	9.4 ug/m3	See SOG #: T106

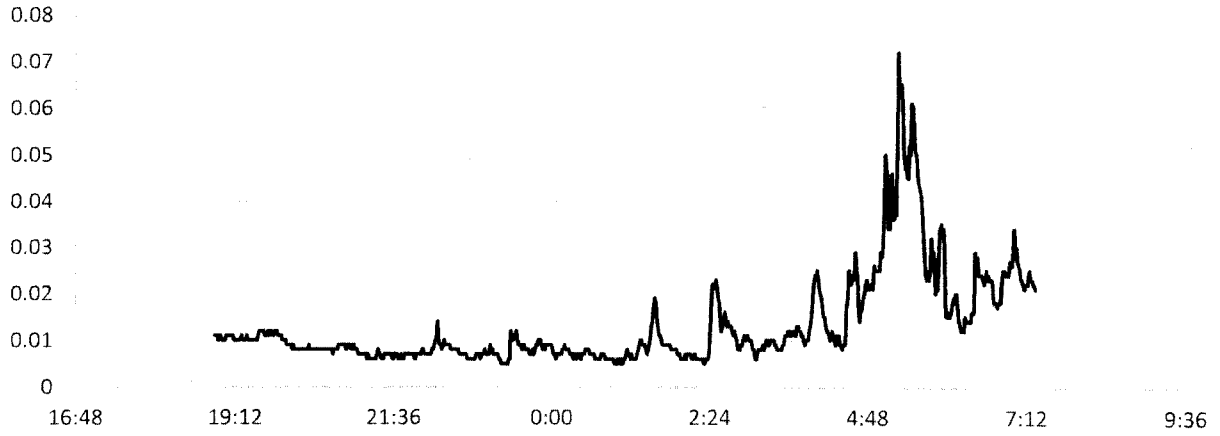
Off Able Contracted Park

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	735	146	0 - 63 ug/m3	11.7 ug/m3	See SOG #: T106

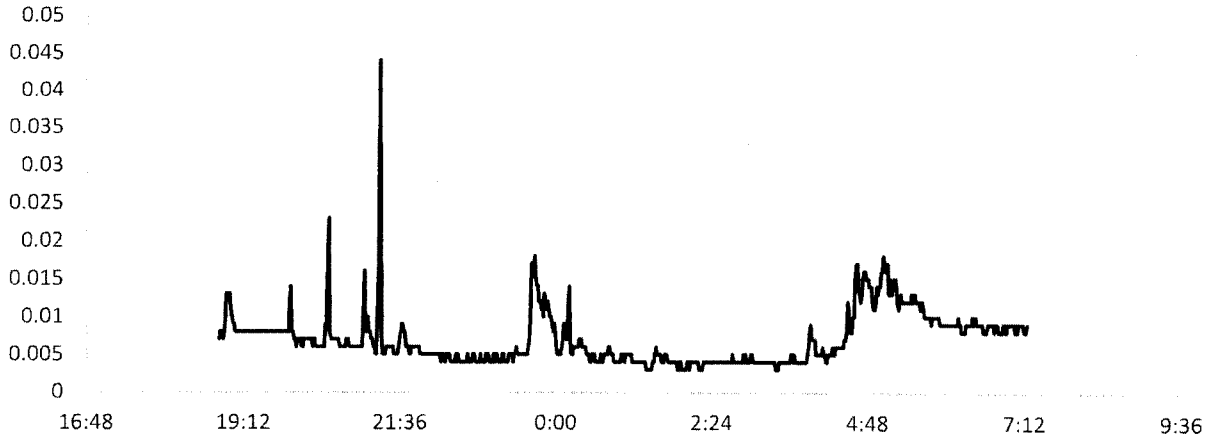
Notes:

%	Percent	O_2	Oxygen
<	Less than	PEL	Permissible exposure limit
>	Greater than	ppb	Parts per billion
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	ppm	Parts per million
CO	Carbon monoxide	PM	Particulate matter
H_2S	Hydrogen Sulfide	SOG	Standard Operating Guidelines
HCN	Hydrogen Cyanide	TLV	Threshold limit value
LEL	Lower Explosive Level	µg/m³	Micrograms per cubic meter
min	Minute	VOC	Volatile organic compoud

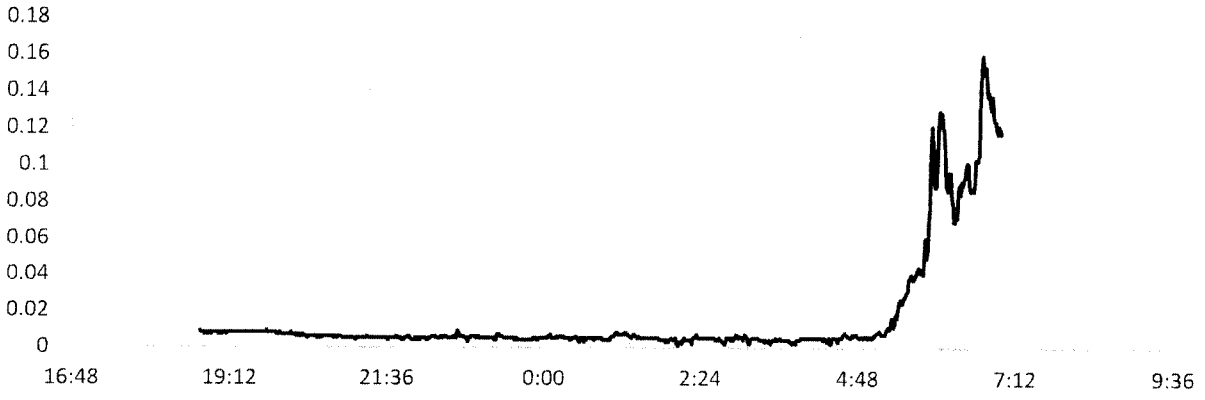
8/22/19 NIGHT Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



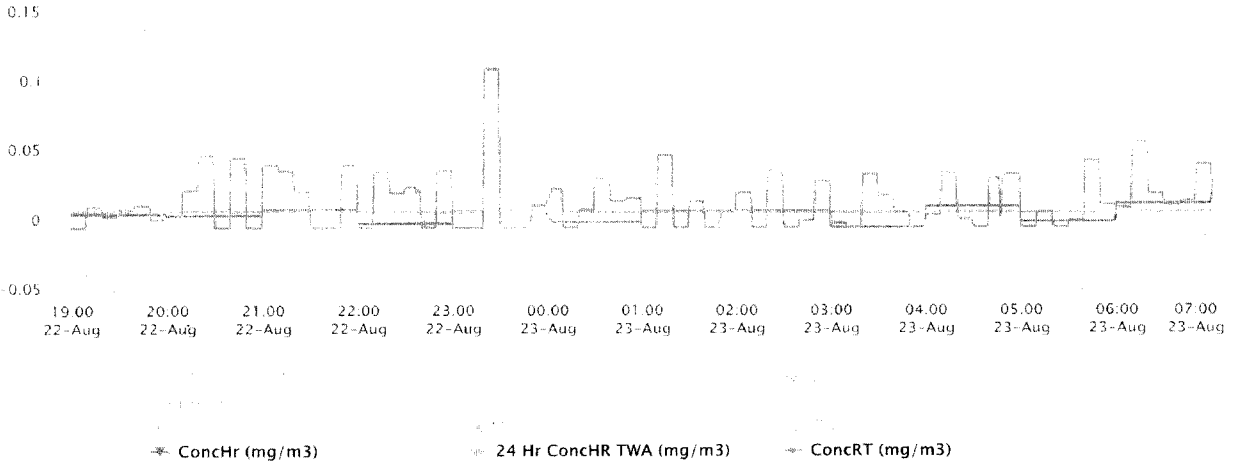
8/22/19 NIGHT Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



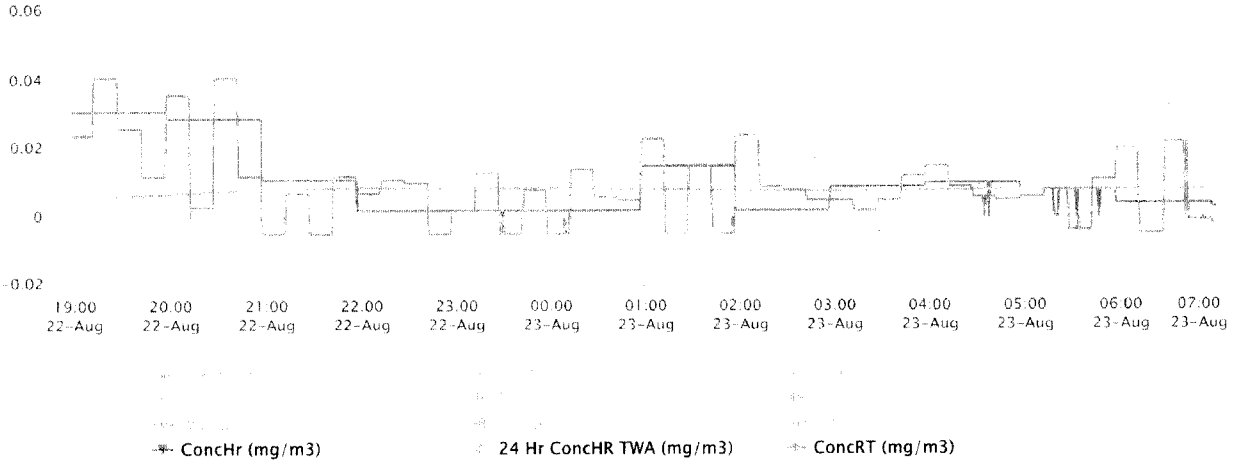
8/22/19 NIGHT Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



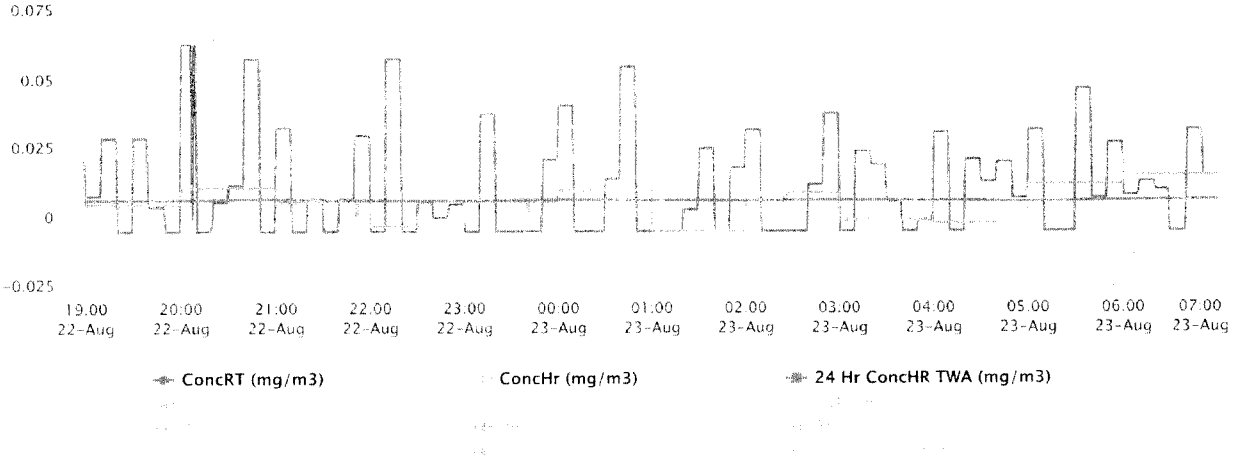
8/22/19 NIGHT Data for EBAM 1 (ConcRT) – Sun City



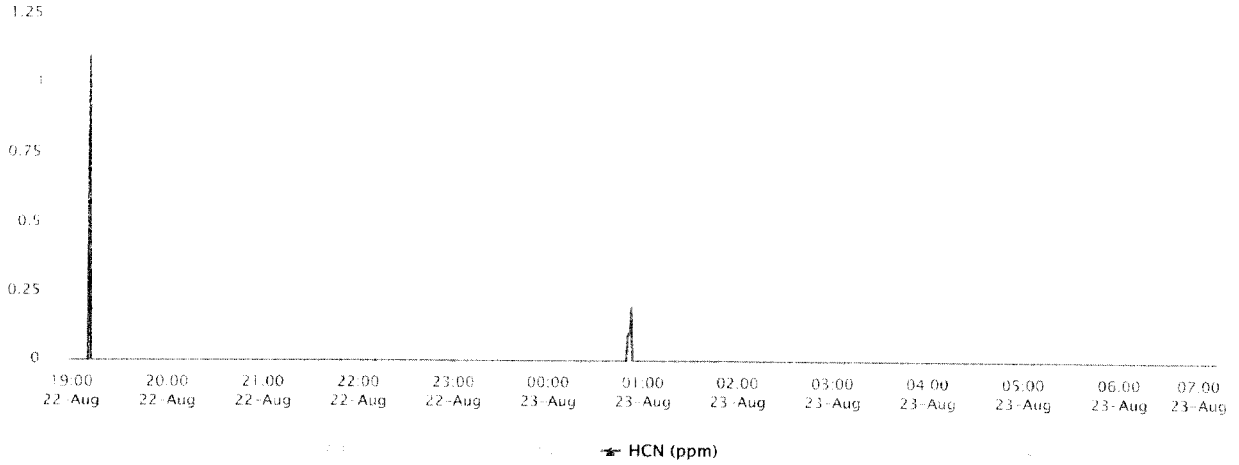
8/22/19 NIGHT Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



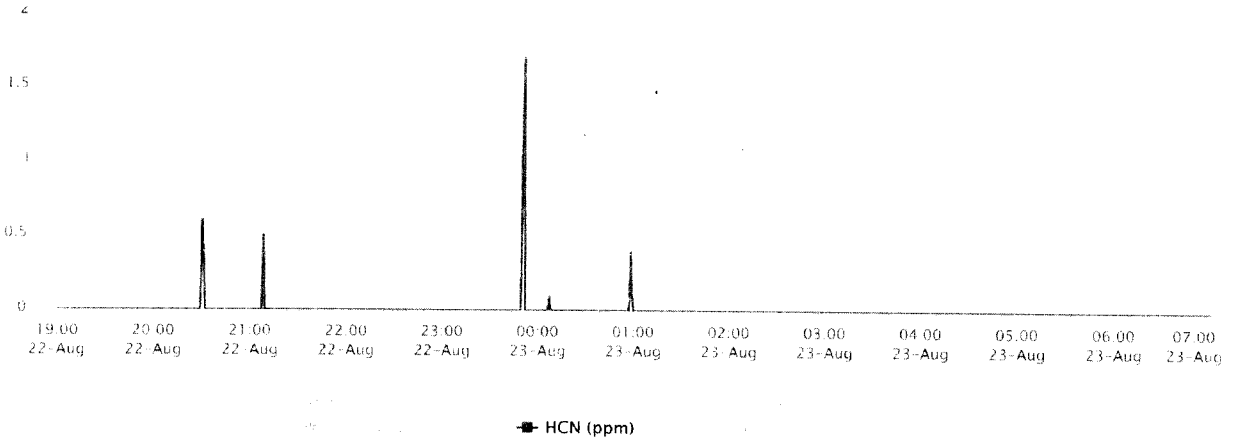
8/22/19 NIGHT Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



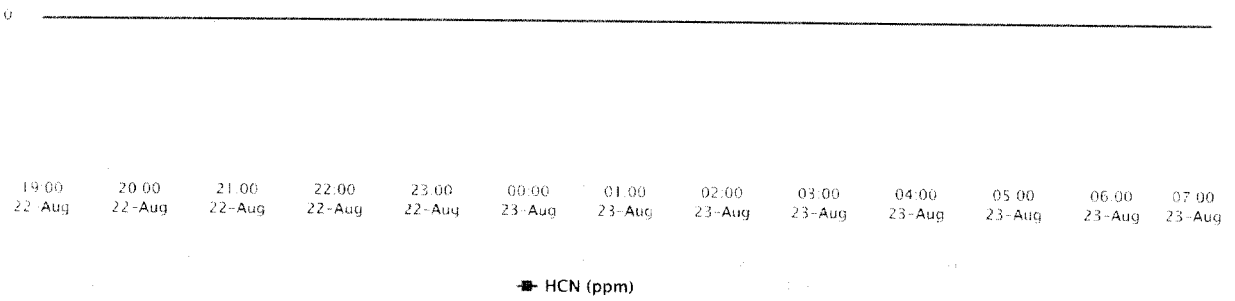
8/22/19 NIGHT Data for AREARAE PRO 1 (HCn) – Southwest of Pile



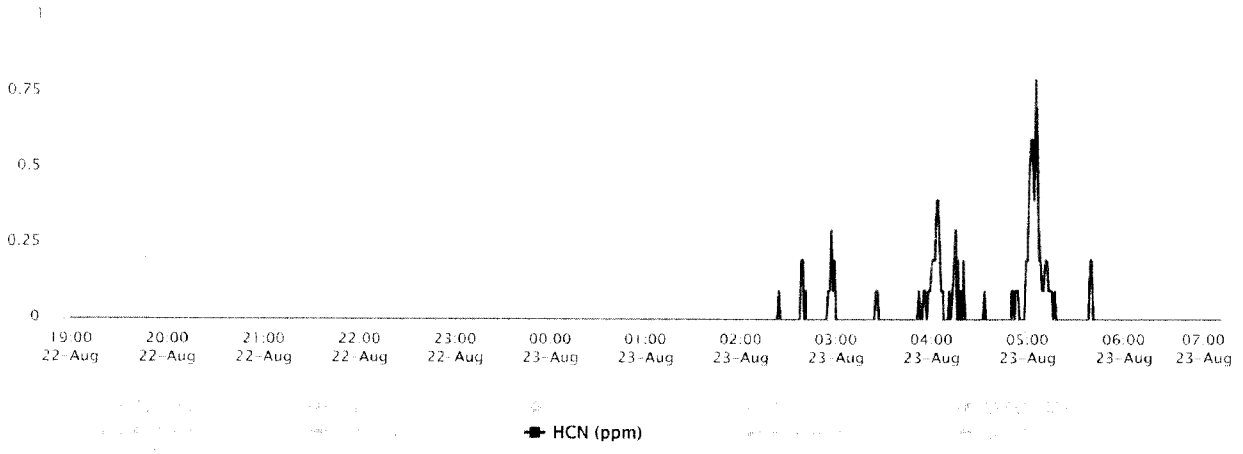
8/22/19 NIGHT Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/22/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/22/19 NIGHT Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	**40.1-80.0**	**12.1-35.4**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive groups	**80.1-175.0**	**35.5-55.4**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/21/19 19:00** ***To:*** **8/22/19 7:00**

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	751	7	0 - 106 ppb	0.58 ppb	1,000 ppb
	CO	No	751	8	0 - 8 ppm	0.05 ppm	83 ppm
	H_2S	No	751	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	751	751	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	751	0	0 - 0 %	0 %	10%
	HCN	No	751	36	0 - 1.5 ppm	0.01 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Moderate	590	590	4 - 229 µg/m³	15 ug/m3	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	762	1	0 - 15 ppb	0.02 ppb	1,000 ppb
	CO	No	762	2	0 - 6 ppm	0.01 ppm	83 ppm
	H_2S	Yes	762	16	0 - 0.9 ppm	0.012 ppm	0.5 ppm
	O_2	No	762	762	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	762	0	0 - 0 %	0 %	10%
	HCN	No	762	246	0 - 5.3 ppm	0.33 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	743	651	0 - 36 µg/m³	4.8 ug/m3	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	753	288	0 - 366 ppb	25.01 ppb	1,000 ppb
	CO	No	753	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	753	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	753	753	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	753	753	2 - 3 %	2.1 %	10%
	HCN	No	753	3	0 - 1.1 ppm	0 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	744	744	4 - 14 µg/m³	6.3 ug/m3	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	759	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	759	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	759	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	759	759	20.5 - 20.9 %	20.7 %	<19.5 or >23%
	LEL	No	759	0	0 - 0 %	0 %	10%
	HCN	No	759	1	0 - 0.1 ppm	0 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	742	261	0 - 66 ug/m3	9.9 ug/m3	See SOG #: T106

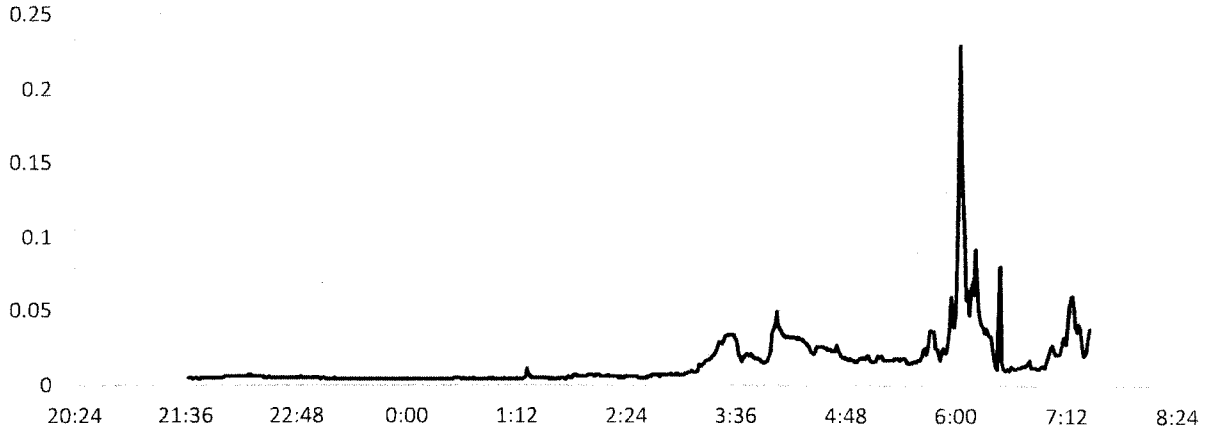
Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	744	372	0 - 46 ug/m3	6.4 ug/m3	See SOG #: T106

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	747	143	0 - 63 ug/m3	9.4 ug/m3	See SOG #: T106

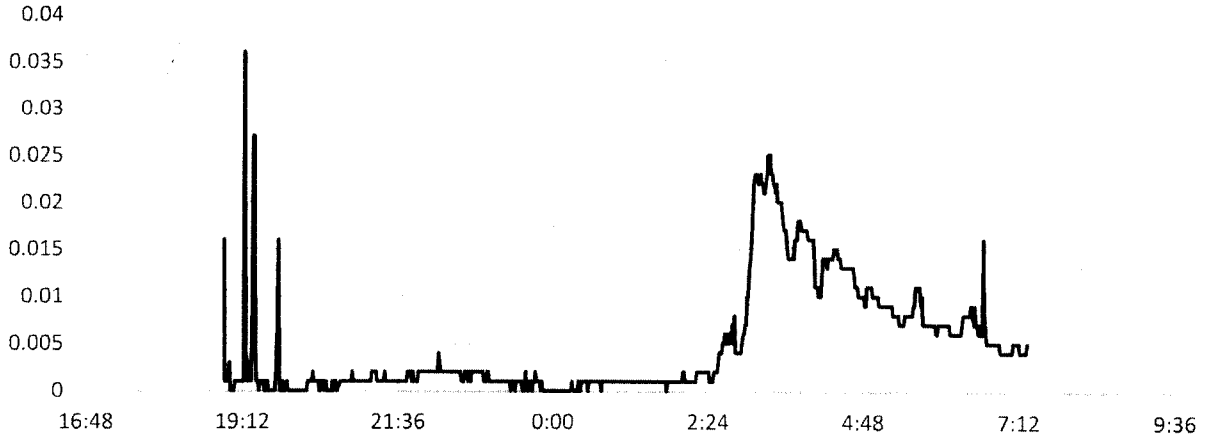
Notes:

%	Percent	O_2	Oxygen
<	Less than	PEL	Permissible exposure limit
>	Greater than	ppb	Parts per billion
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	ppm	Parts per million
CO	Carbon monoxide	PM	Particulate matter
H_2S	Hydrogen Sulfide	SOG	Standard Operating Guidelines
HCN	Hydrogen Cyanide	TLV	Threshold limit value
LEL	Lower Explosive Level	µg/m³	Micrograms per cubic meter
min	Minute	VOC	Volatile organic compoud

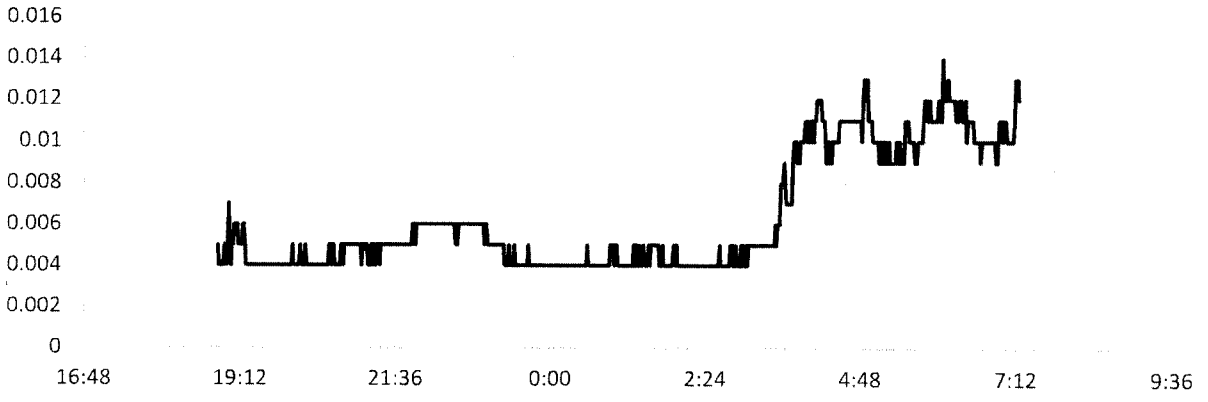
8/21/19 NIGHT Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



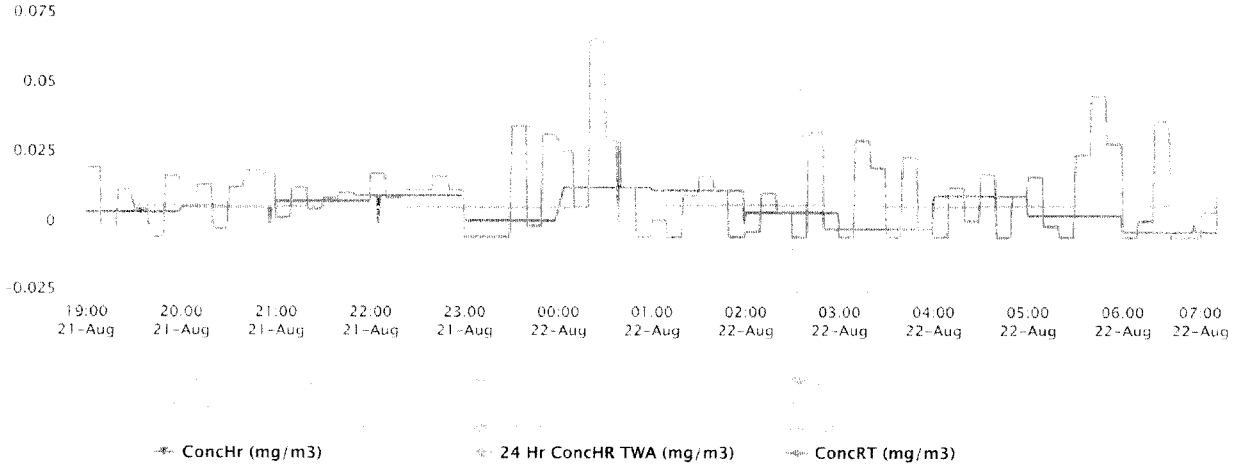
8/21/19 NIGHT Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



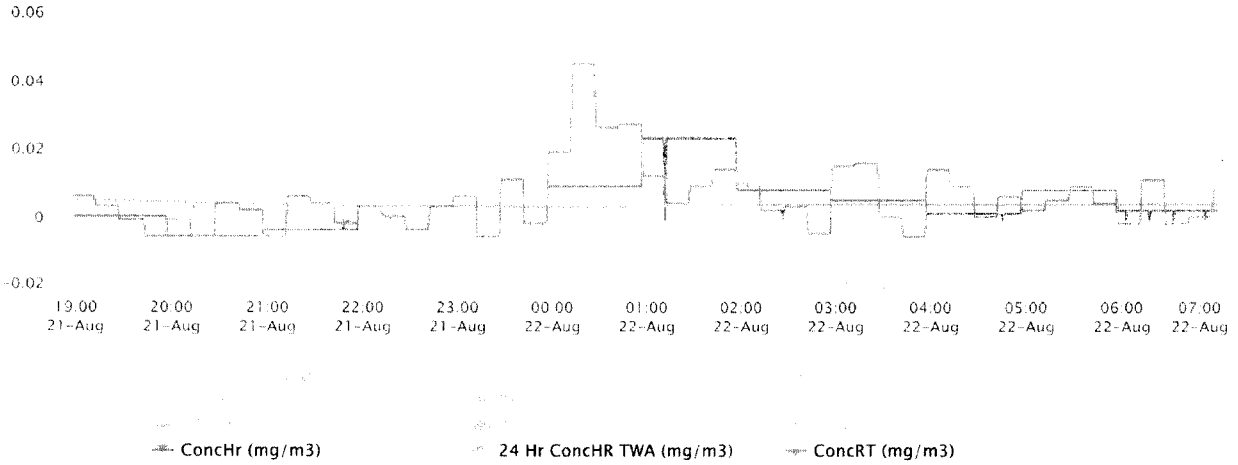
8/21/19 NIGHT Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



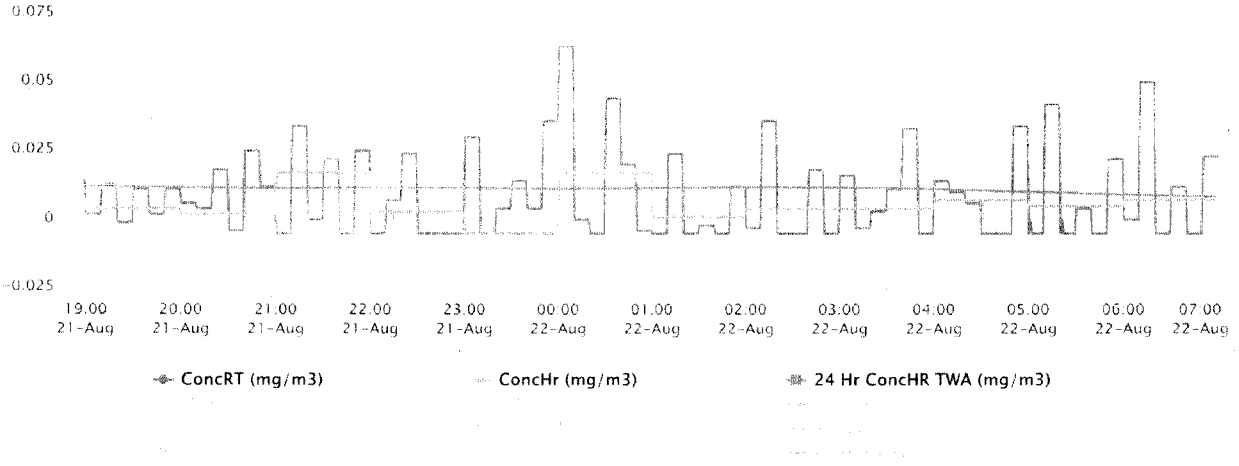
8/21/19 NIGHT Data for EBAM 1 (ConcRT) – Sun City



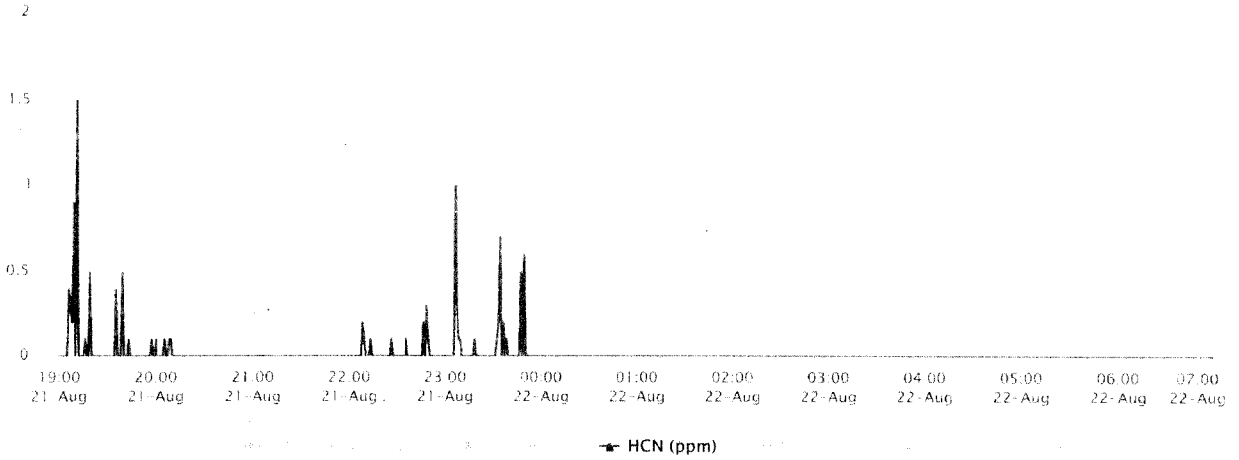
8/21/19 NIGHT Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



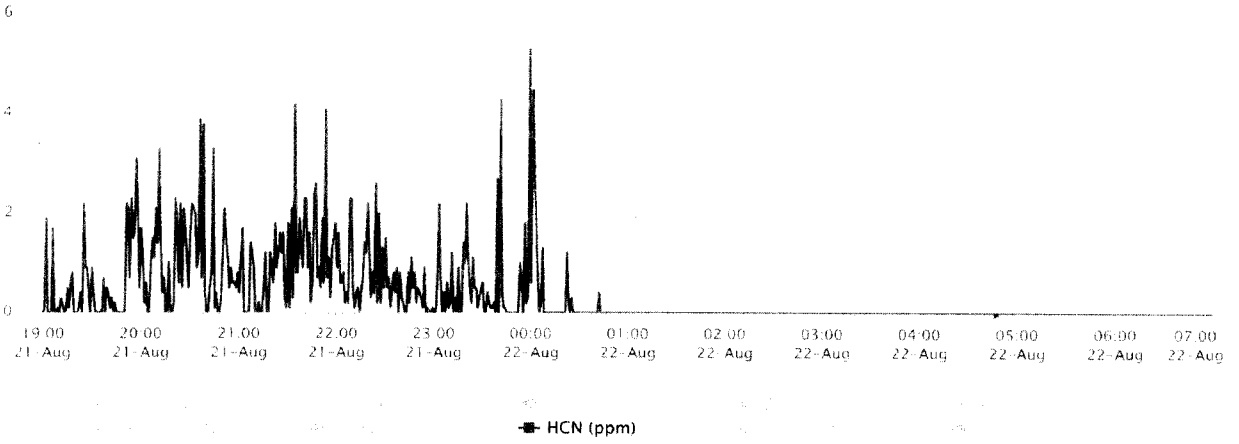
8/21/19 NIGHT Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



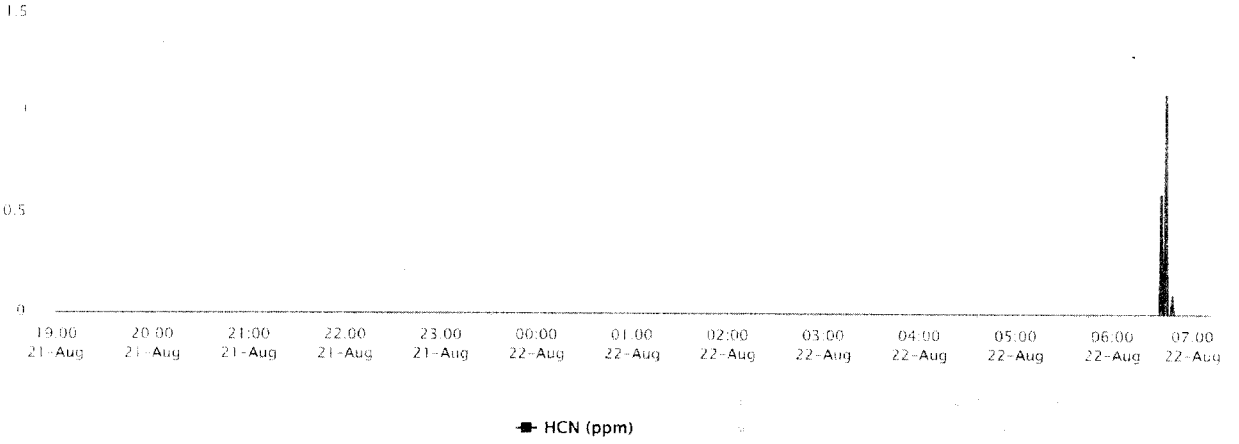
8/21/19 NIGHT Data for AREARAE PRO 1 (HCn) – Southwest of Pile



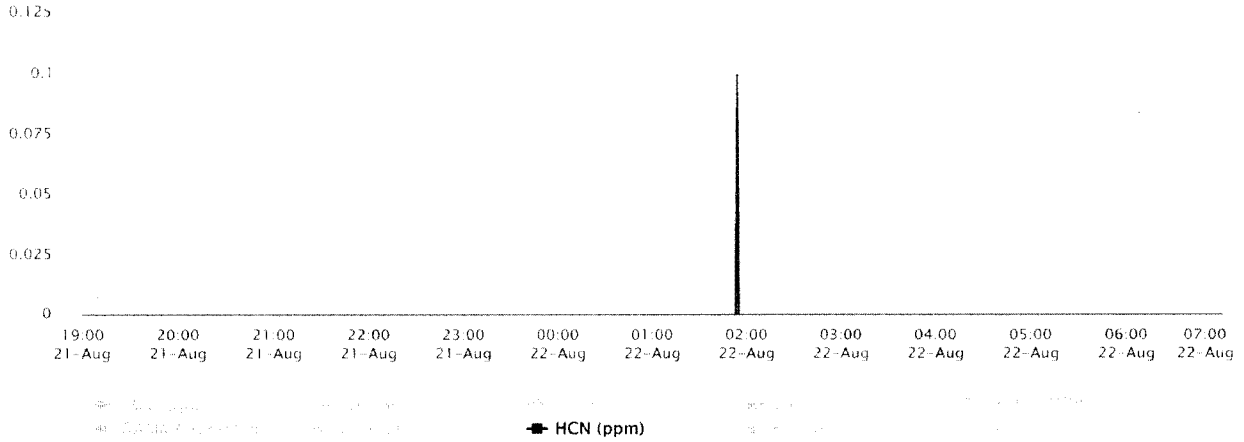
8/21/19 NIGHT Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/21/19 NIGHT Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/21/19 NIGHT Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

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Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
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From: Jones, Chris <chris.jones@tetratech.com>
Sent on: Thursday, August 22, 2019 11:33:12 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>
CC: Swanson, Courtney <Swanson.Courtney@epa.gov>; Russell, Chris <Russell.Chris@epa.gov>
Subject: Air Sampling and Monitoring Plan
Attachments: Able Contracting Fire ER DRAFT_Rev 0.pdf (987.8 KB)

Gentleman,

Attached is the draft Air Sampling and Monitoring Plan for your review. Let me know if you'd like any revisions.

Thanks,

Chris Jones | Readiness Coordinator
Direct **(678) 775-3081** | Main **(678) 775-3080** | Cell **(404) 395-5220** | chris.jones@tetratech.com

Tetra Tech | Complex World, Clear Solutions™ | Environmental Services Divisions

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Think Green: Reduce, Reuse, Recycle

Armstrong, Kathy

From: Jones, Chris <chris.jones@tetratech.com>
Sent: Thursday, August 22, 2019 7:33 PM
To: Tanner, Terry
Cc: Swanson, Courtney; Russell, Chris
Subject: Air Sampling and Monitoring Plan
Attachments: Able Contracting Fire ER DRAFT_Rev 0.pdf

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Think Green: Reduce, Reuse, Recycle

TETRA TECH

August 22, 2019

OSC Terry Tanner
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4

Subject: **Draft Air Monitoring and Sampling Plan, Revision 0**
Able Contracting Fire ER
EPA Contract No. EP-S5-13-01
Technical Direction Document No. TBD

Dear OSC Terry Tanner:

Tetra Tech, Inc. (Tetra Tech) is submitting this draft air monitoring and sampling plan for the Able Contracting Fire Emergency Response (ER) for your review and approval. This plan summarizes stationary and mobile air monitoring and sampling to be conducted during the Able Contracting Fire ER.

If you have any questions regarding this plan, please contact Chris Jones at (404) 395-5220 or via e-mail at chris.jones@tetratech.com.

Respectfully,

Justin Button-Hutchens
Tetra Tech

DRAFT AIR MONITORING AND SAMPLING PLAN, REVISION 0
ABLE CONTRACTING FIRE ER
RIDGELAND, JASPER COUNTY, SOUTH CAROLINA

Prepared for

U.S. Environmental Protection Agency
Emergency Response Branch
Region 4

Submitted by

Tetra Tech, Inc.
Superfund Technical Assessment and Response Team Region 4
1955 Evergreen Blvd., Building 200, Suite 300
Duluth, GA 30096

EPA Contract No. EP-S4-14-03

TDD-01-128

August 22, 2019

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A Figures

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has tasked Tetra Tech. Inc. (Tetra Tech), under the Superfund Technical Assessment and Response Team (START) Contract TDD-01-128 to perform stationary air monitoring and sampling during an emergency response at the Able Contracting Fire Emergency Response (ER) site (the site) in Ridgeland, Jasper County, South Carolina.

2.0 SITE BACKGROUND

The Able Contracting facility is located on Schinger Avenue in Ridgeland, South Carolina. The facility received construction and demolition debris which was shredded as recyclable materials were removed. The Site contains approximately 4 acres of stockpiled material.

The current fire of the stockpiled material began in early July 2019. Able Contracting and local fire departments have worked to extinguish the fire. On July 23, a large water supply pump used by the facility for firefighting was damaged by lightning. Smoke from the smoldering fire continued to increase over the next several days.

The EPA was requested by South Carolina Department Health and Environmental Control (SC DHEC) to conduct air monitoring and sampling to determine if any hazardous substances were being discharged from the smoldering fire. The EPA and Tetra Tech deployed to the Site on July 25. During the initial response activities, Tetra Tech conducted water quality monitoring and collected surface water samples from ditches and a nearby pond.

Ambient air sampling was conducted on July 27th and 28th as close to the smoke plume as possible and downwind of the closest residential property. Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), formaldehyde, phosgene, metals, and asbestos. Tetra Tech returned to the site on August 2nd and 3rd to conduct additional air sampling to confirm the presence of hazardous substances measured in the previous round of sampling.

On August 9, EPA and Tetra Tech remobilized to the Site and began 24-hour air monitoring. SC DHEC mobilized a response contractor who began water application on August 11 and aggressive firefighting operations with heavy equipment on August 12. The EPA assumed the lead for relocation of residents and aggressive firefighting operations on August 16.

3.0 PROPOSED SAMPLING ACTIVITIES

This section discusses proposed monitoring and sampling activities that will be conducted during the response.

3.1 METEOROLOGICAL MONITORING

Meteorological data for Ridegeland, South Carolina will be obtained from NOAA and recorded using EPA's VIPER Survey Controller software. The data obtained and documented will include:

- Temperature (°F)
- Relative humidity
- Wind direction
- Wind speed
- Current weather conditions (such as sunny or precipitation)

3.2 STATIONARY AIR MONITORING

Tetra Tech and EPA determined stationary air monitoring locations by field conditions such as weather, work activity by other contractors, and direction from EPA. Remote air monitoring instruments were deployed for particulates and chemical constituents. Stationary air monitoring was conducted using AreaRAE Pro monitors and Single Point Monitors (SPM) Flex gas detectors from July 26 through July 28 and August 2 through August 4, 2019. The AreaRAE Pros were outfitted with sensors for measuring oxygen (O_2), lower exposure limit (LEL), hydrogen sulfide (H_2S), volatile organic compounds (VOCs), carbon monoxide (CO), and gamma radiation. The tapes used in the SPM Flexes were monitoring for phosgene.

On August 9, 2019, EPA began stationary air monitoring using AreaRAE Pros, DustTrak aerosol monitors, and E-BAM Portable Environmental Beta-Attenuation Mass Monitors during removal activities. Tetra Tech START stationed four AreaRAE Pros at fixed locations northeast, northwest, and southwest of the pile and near Forrest Concrete southeast of the pile. The AreaRAEs were outfitted with sensors for measuring O_2, LEL, hydrogen cyanide (HCN), H_2S, VOCs, CO, and gamma radiation. The DustTrak monitors measure atmospheric particulate matter with diameters of 2.5 micrometers (µm) (PM2.5), 10 µm (PM10), and total particulate matter (Total PM). The DustTraks are located at the following locations: Grace Coastal Church at 15 Williams Drive; Peacock Collision at 1667 Okatie Highway: and, 240 Short Cut Road. The E-BAMs measure for PM2.5 and are collocated with meteorological stations. The E-BAMs are located at the following locations: the Mobile Command Post (MCP) at 65 Schinger Avenue; the northeastern section of Sun City Neighborhood off Parkway Lane;

and, Brooke Mill Apartments community swimming pool at 46 Seagrass Lane. SC DHEC conducted particulate air monitoring and weather monitoring using the Network Particulate Monitor (NPM) 2 at three locations in the area. Observations will be noted in the field logbook in accordance with Tetra Tech SOP No.24-2.

3.3 AIR SAMPLING

Air sampling will be conducted over a two-day period using SUMMA cannisters to collect VOCs, HCN and H_2S. Air sampling will be conducted at the following fixed locations: at the Forrest Concrete location described above and at 352 Schinger Avenue. Air sampling will also be conducted during this time at a locations determined by field conditions such as weather, work activity by other contractors, and direction from EPA. Analytical results will be compared to EPA Region 4 Removal Management Levels (RML) for residential air and used to determine if evacuated residents can return to their homes.

Air sampling for a broad range of compounds will be conducted in accordance with EPA Air Method TO-15, "*Determination of Volatile Organic Compounds (VOCs) in Air Collected in SUMMA Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*". Air samples will be collected in 6-liter (L), stainless steel SUMMA canisters utilizing a 24-hour regulator to collect each sample at a flow rate of approximately 3.8 milliliters per minute (mL/min.). Prior to sampling, each SUMMA canister will be leak tested by conducting a shut-in test to ensure no leaks in any of the connections between the SUMMA canister and regulator. Once deployed, the SUMMA canisters will be set to collect samples over a 24-hour period. Samples are generally run for slightly less than 24 hours to prevent complete depletion of the vacuum in the SUMMA canister. At the beginning and ending of each sample collection period, the time, date, and vacuum pressure are recorded so that volume and sampling rate could be determined for each sample.

In addition to the VOC analysis, SUMMA canister samples will be used to obtain HCN (by Fourier Transfer Infrared [FTIR] spectroscopy) and H_2S (by Method 15) concentrations.

3.4 ASBESTOS AIR SAMPLING

Tetra Tech will conduct air sampling at locations around the perimeter of the landfill during removal activities as directed by EPA. EPA and Tetra Tech personnel will select perimeter air sampling locations based on the prevailing wind direction for the sampling period. Results will be used to determine the presence or absence of airborne fiber concentrations that have the potential to migrate from the site during removal activities, as well as to implement appropriate safety controls. EPA established the site action level to be 0.01 f/cc in accordance with the air asbestos action level for baseline industrial exposure in

accordance with OSWER Directive #9200.0-68, *Framework for Investigating Asbestos-Contaminated Superfund Sites*. Air sampling will be conducted using collocated high-volume air sampling pumps and low-volume air sampling pumps fitted with 25 millimeter (mm), 0.8 micrometer (μm) mixed cellulose ester (MCE) filter cassettes that will be analyzed by phase contrast microscopy (PCM). Perimeter air samples will be collected approximately 4 to 5 feet above the ground surface to represent exposures in the breathing zone during removal activities. Filter cassettes will be placed in a downward approximate 45-degree angle position with the inlet caps of the filter cassettes removed (open-faced) during sampling. Daily perimeter air samples for high-volume air sampling pumps will be collected at a flow rate of approximately 10 liters per minute (L/min) or at a flow rate resulting in collection of at least 3,850 liters per minute (L/min) and for low-volume air sampling pumps at a flow rate of 2.5 L/min or at a flow rate resulting in collection of at least 1,200 L/min of air during a 12-hour work shift. The flow rate of the fully assembled air sampling trains will be calibrated and recorded before samples are collected using a Mesa Labs Defender 510 Drycal rotameter or similar device. Once the sampling pumps have been adjusted to the desired flow rate, the initial flow rates recorded will be the average of 10 continuous flow readings. The inlet caps of both the low and high flow rate air filter cassettes will be removed (such that they are open-faced) during sampling. The post-sampling period flow rate (also measured using a Mesa Labs Defender 510 Drycal rotameter or similar device), however, typically will be measured while the air sampling train is still collecting air at its sampling location, just before the sampling period ends. This near-end-of-sampling flow rate measurement will be used in place of measuring the literal post-sampling flow rate. It is important to use the filter cassette for collecting the actual sample while the flow rate is measured before and after samples are collected; this procedure is especially important for the after-sample collection flow rate measurement because loading of dust and other materials during sampling may have altered the flow rate throughout the collection period. Without adjusting the flow rate of the sampling pump, the post-sampling flow rate will be recorded as the average of 10 continuous flow readings.

Perimeter air samples will be analyzed in accordance with the guidelines established in 29 CFR 1926.1101, Appendix A and Appendix B, by a Tetra Tech-procured, American Industrial Hygiene Association- (AIHA) accredited laboratory using National Institute of Occupational Safety and Health (NIOSH) Method 7400, Asbestos and Other Fibers by PCM. The laboratory analytical protocol for analyzing the collocated high flow rate and low flow rate air sample sets are as follows: (1) first attempt to analyze the high flow rate (high volume) air sample using NIOSH 7400, and, if that sample is overloaded, then (2) proceed to analyze the low flow rate (low volume) air sample by NIOSH 7400. If

both the high volume and the low volume air samples in a given collocated set are overloaded, then the laboratory will contact Tetra Tech START for additional instruction for analytical methods.

The results of samples will be used to evaluate the effectiveness of engineering and safety controls in preventing the off-site migration of airborne fiber concentrations during removal activities and provide EPA with information necessary to initiate corrective actions as appropriate. Perimeter air samples that yield PCM results greater than the site established action level of 0.01 f/cc for industrial areas will result in the suspension of removal activities until additional engineering controls are implemented to reduce asbestos fiber levels.

3.5 SAMPLE AND ANALYTICAL METHODS SUMMARY

TABLE 1 summarizes the total number of samples, including necessary QA/QC, for each sample medium and analysis. **TABLE 2** provides a list of analytical methods that will be used by the laboratory, including the types of containers, preservation requirements, and hold times.

TABLE 1: SAMPLE SUMMARY

Analytical Parameter	Matrix	Number of Samples	Number of Field Duplicates	Number of MS/MSDs	Field/Trip Blanks
TO-15	Air	TBD	1 duplicate every 20 samples	Not Applicable	Not Applicable
Method 15	Air	TBD	1 duplicate every 20 samples	Not Applicable	Not Applicable
FTIR	Air	TBD	1 duplicate every 20 samples	Not Applicable	Not Applicable
NIOSH 7400	Air	TBD	1 duplicate every 20 samples	Not Applicable	1 per day of PCM air sampling

Notes:

MS/MSD = Matrix spike/matrix spike duplicate
TBD = To Be Determined

TABLE 2: ANALYTICAL METHODS

Matrix	Parameter	Analytical Method	Volumes and Containers	Preservation	Holding Time[1]
Air	VOC	TO-15	6-Liter Summa Canisters with 24 Hour regulators	None	30 Days
Air	HCN	FTIR	6-Liter Summa Canisters with 24 Hour regulators	None	30 Days
Air	H2S	Method 15	6-Liter Summa Canisters with 24 Hour regulators	None	30 Days

Matrix	Parameter	Analytical Method	Volumes and Containers	Preservation	Holding Time[1]
Air	Asbestos	NIOSH 7400	Volume: 10.0 liters per minute. Cassette filters: 25 millimeter (mm), 0.8 micrometer (µm) mixed cellulose ester (MCE)	None	N/A

Notes:
1 = Holding time is measured from the time of sample collection to the time of sample extraction and analysis
± = Plus or minus
L = Liters

3.6 TENTATIVE SAMPLE ACTIVITIES DATES

Initial sampling activities will include sampling south of the fire, adjacent to local businesses and in a residential neighborhood to the east of the fire.

Upon completion of the initial sampling activities, a second round of sampling will ensue. The locations adjacent to the local businesses and residential locations will remain the same. The downwind locations are weather dependent and will be determined based on the current field conditions.

4.0 SAMPLE HANDLING

Sampling locations will be noted in the site logbook in accordance with procedures outlined in SESDPROC-010-R5, Logbooks, dated May 5, 2013. The samples collected will be labeled, packaged, and shipped in accordance with procedures outlined in SESDPROC-209-R3, Packaging, Marking, Labeling, and Shipping of Environmental and Waste Samples, dated February 4, 2015.

5.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

This section describes the QA/QC procedures for the removal activities at the site. Specifically, this section addresses field QC procedures, data evaluation, and data management.

5.1 FIELD QUALITY CONTROL

QC samples will be collected to evaluate field sampling methods, and overall reproducibility of laboratory analytical results. Specifically, QC samples will be collected at the following frequencies:

- Field duplicate samples: one per 20 investigative samples

Each field duplicate sample will be collected for every 20 field samples from location next to the initial sample location. Field duplicate samples will be processed, stored, packaged, and analyzed according to the same methods applied to the investigative samples.

Tetra Tech will validate the laboratory results, in accordance with EPA National Functional Guidelines for Inorganic Superfund Methods Data Review and Organic Superfund Methods Data Review. Corrective actions may include resampling, reassessment of the laboratory's methods, and/or the addition of data qualifiers to the laboratory results.

5.2 DATA EVALUATION AND MANAGEMENT

Tetra Tech will use direct-reading instruments connected to EPAs wireless telemetry system, Viper, along with data logging capability for air monitoring equipment. Data will be downloaded from the instruments and evaluated daily.

Air monitoring instruments used to collect data at the site will log data internally, checked to ensure that data logging is enabled, and that sufficient memory space remains on the instrument at the start of each run and after battery changeouts. Tetra Tech personnel will also check to ensure that the date and time are correct at the start of each run. Tetra Tech personnel will download all data logs related to the site at the conclusion of the response or when the memory on any instrument is approaching capacity, whichever comes first. Data logs may also be downloaded from any instrument at the request of the EPA at any time during the response. EPA's VIPER Survey Controller software, which provides telemetry to view data remotely in real-time and logs data in a secure location managed by EPA Environmental Response Team (ERT).

Depending on the analytical results for air samples collected from August 21 to 23, EPA, in conjunction with EPAs Scientific Support Team, the Agency for Toxic Substances and Disease Registry (ATSDR), and SC DHEC will determine if further sampling is necessary.

APPENDIX A
FIGURES

Figure 1 - Sample Locations

Able Contracting Fire (ACF) Sample Locations

600ft

USDA FSA, DigitalGlobe, GeoEye, CNES/Airbus DS | Esri, HERE, Garmin, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Figure 2 - Air Monitoring Locations

● Air Monitoring Location

Air Monitoring Summary Report for DAY 8/23/2019 (7:00 am to 6:58 pm)
During the monitoring period, particulate monitors located at Peacock Collision, Short Cut Road, Sun City, Brooke Mill Apartments, and Grace Coastal Church locations observed GOOD air quality levels. Particulate monitors at the EPA Command Post observed MODERATE air quality levels.

Hydrogen sulfide was detected at low levels at the On-Site Southwest Corner of the Pile and do not present a risk to human health. VOCs and hydrogen sulfide was detected at the On-Site Northwest Corner of the Pile and do not present a risk to human health.

Air Monitoring Summary Report for NIGHT 8/23/2019 (7:00 pm to 7:00 am 8/24/2019)
During the monitoring period, particulate monitors at Peacock Collision, Short Cut Road, Brooke Mill Apartments, and Grace Coastal Church locations observed GOOD air quality levels. Particulate monitors at the EPA Command Post and Sun City observed MODERATE air quality levels. This was consistent with visual observations and wind direction observed during early morning hours. VOCs were detected at low levels at the On-Site Southwest Corner of the Pile and do not present a risk to human health.

Air Monitoring Summary Report for DAY 8/24/2019 (7:00 am to 7:00 pm)

Very little smoke or fire observed after mid-morning due to use of cement pump truck. During the monitoring period, particulate monitors located at all stations (Peacock Collision, Short Cut Road, Brooke Mill Apartments, Sun City, EPA Mobile Command Post, and the Grace Coastal Church) observed GOOD air quality levels. Particulate monitors for Short Cut Road and Grace Coastal Church (both Dustraks) lost connectivity and data for most of the day. No exceedance of Action Levels for any analytes during this period.

Air Monitoring Summary Report for DAY 8/25/2019 (7:00 am to 7:00 pm)

Very little smoke and no surface fire observed upon arrival this morning. During the monitoring period, particulate monitors located at all stations (Peacock Collision, Short Cut Road, Brooke Mill Apartments, Sun City, EPA Mobile Command Post, and the Grace Coastal Church) observed GOOD air quality levels. This day's average particulate values were the lowest of the week. No exceedance of Action Levels for any analytes during this period. Future reports will change to cover a 24 hour format.

Air Monitoring Summary Report for 8/26/2019 (24 hour period)

Very little smoke and no surface fire observed this morning for the second day in a row. During the monitoring period, particulate monitors located at all stations (Peacock Collision, Short Cut Road, Brooke Mill Apartments, Sun City, EPA Mobile Command Post, and the Grace Coastal Church) observed GOOD air quality levels. This day's average particulate values were the lowest of the week. No exceedance of Action Levels for any analytes during this period.

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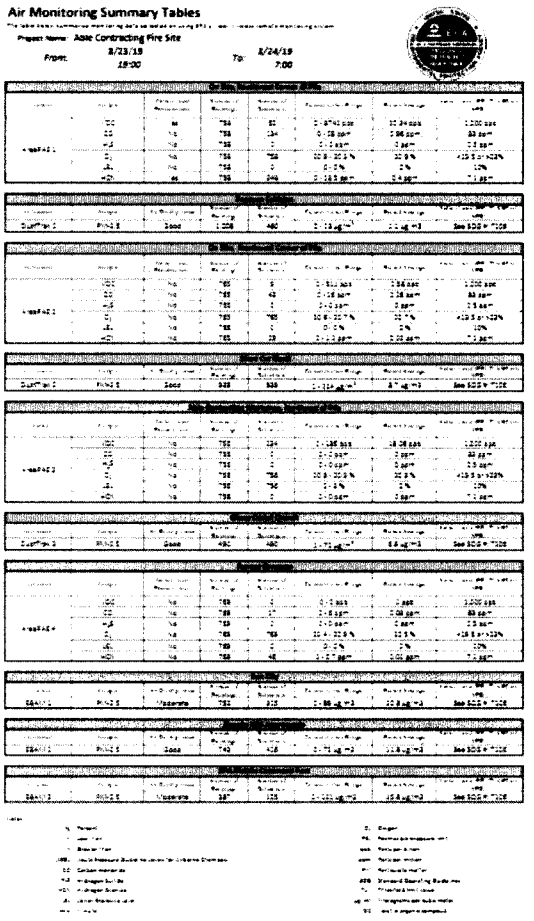


Air Monitoring Summary Tables

Project Name: Able Contracting Fire Site

From: 8/23/19 19:00 To: 8/24/19 7:00

View PDF controls

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/23/19 7:00** ***To:*** **8/23/19 19:00**

On Site, Southwest Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	772	1	0 - 72 ppb	0.09 ppb	1,000 ppb
	CO	No	772	6	0 - 5 ppm	0.03 ppm	83 ppm
	H_2S	Yes	772	3	0 - 1.8 ppm	0.004 ppm	0.5 ppm
	O_2	No	772	772	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	772	0	0 - 0 %	0 %	10%
	HCN	No	772	505	0 - 5.7 ppm	0.19 ppm	7.1 ppm

Fairfax Collision

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Good	1,025	982	0 - 32 µg/m³	6.2 ug/m3	See SOG #: T106

On Site, Northwest Corner of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	Yes	777	15	0 - 1048 ppb	5.13 ppb	1,000 ppb
	CO	No	777	79	0 - 19 ppm	0.56 ppm	83 ppm
	H_2S	Yes	777	4	0 - 0.9 ppm	0.003 ppm	0.5 ppm
	O_2	No	777	777	20.6 - 20.9 %	20.7 %	<19.5 or >23%
	LEL	No	777	0	0 - 0 %	0 %	10%
	HCN	No	777	130	0 - 3.1 ppm	0.1 ppm	7.1 ppm

Short Cut Road

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	1,118	1,118	2 - 38 µg/m³	7.2 ug/m3	See SOG #: T106

Able Contracting Workshop, Northeast of Pile

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	771	9	0 - 433 ppb	1.67 ppb	1,000 ppb
	CO	No	771	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	771	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	771	771	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	771	771	2 - 3 %	2.5 %	10%
	HCN	No	771	193	0 - 0.6 ppm	0.08 ppm	7.1 ppm

Green Corner Church

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	1,082	1,016	0 - 111 µg/m³	6.5 ug/m3	See SOG #: T106

Fairfax Complex

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	777	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	777	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	777	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	777	777	20.4 - 21.3 %	20.9 %	<19.5 or >23%
	LEL	No	777	0	0 - 0 %	0 %	10%
	HCN	No	777	386	0 - 1.6 ppm	0.31 ppm	7.1 ppm

Sun City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	733	122	0 - 154 ug/m3	10.3 ug/m3	See SOG #: T106

Brooke Mill Apartments

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	742	130	0 - 34 ug/m3	4.2 ug/m3	See SOG #: T106

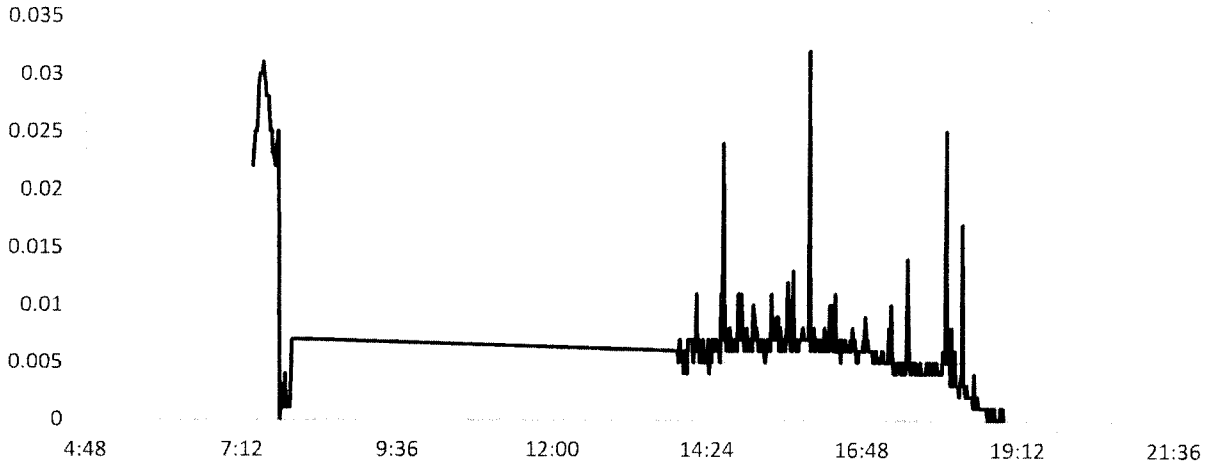
EPA Mobile Command Post

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Moderate	387	125	0 - 121 ug/m3	15.8 ug/m3	See SOG #: T106

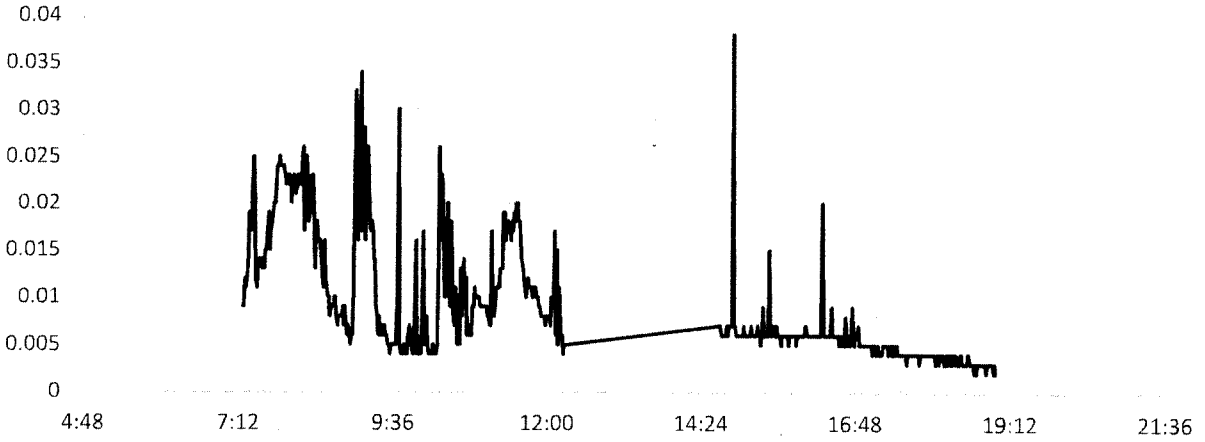
Notes:

%	Percent	O_2	Oxygen
<	Less than	PEL	Permissible exposure limit
>	Greater than	ppb	Parts per billion
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	ppm	Parts per million
CO	Carbon monoxide	PM	Particulate matter
H_2S	Hydrogen Sulfide	SOG	Standard Operating Guidelines
HCN	Hydrogen Cyanide	TLV	Threshold limit value
LEL	Lower Explosive Level	µg/m³	Micrograms per cubic meter
min	Minute	VOC	Volatile organic compoud

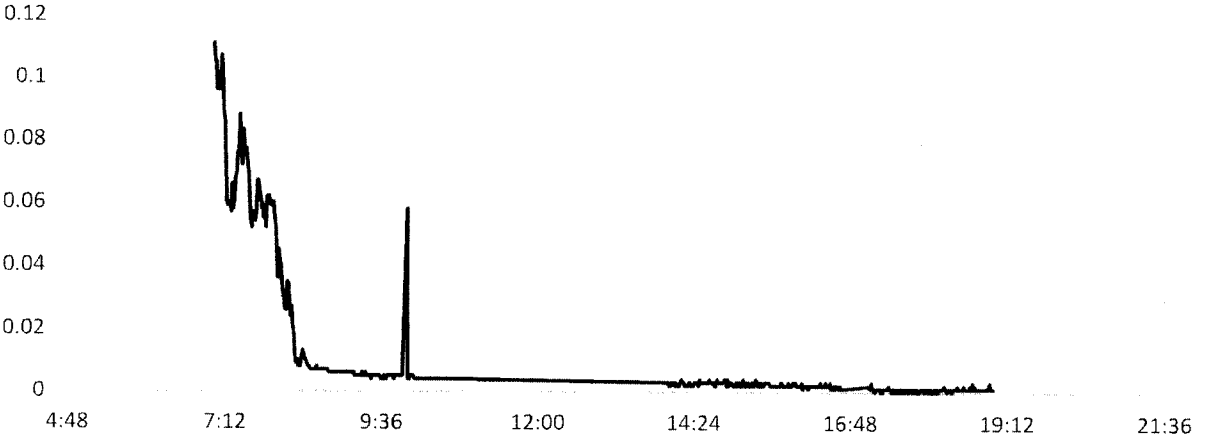
8/23/19 DAY Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



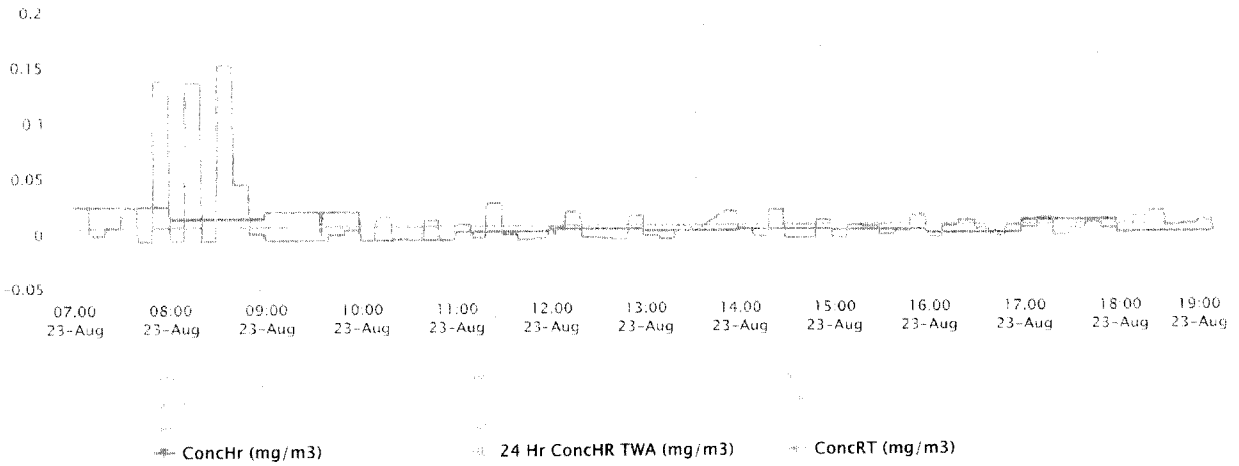
8/23/19 DAY Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



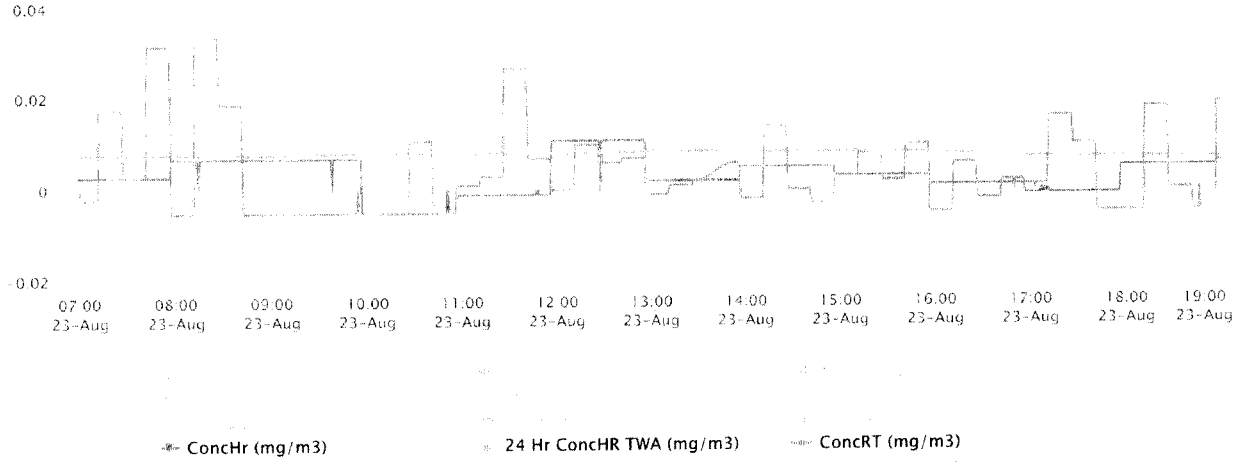
8/23/19 DAY Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



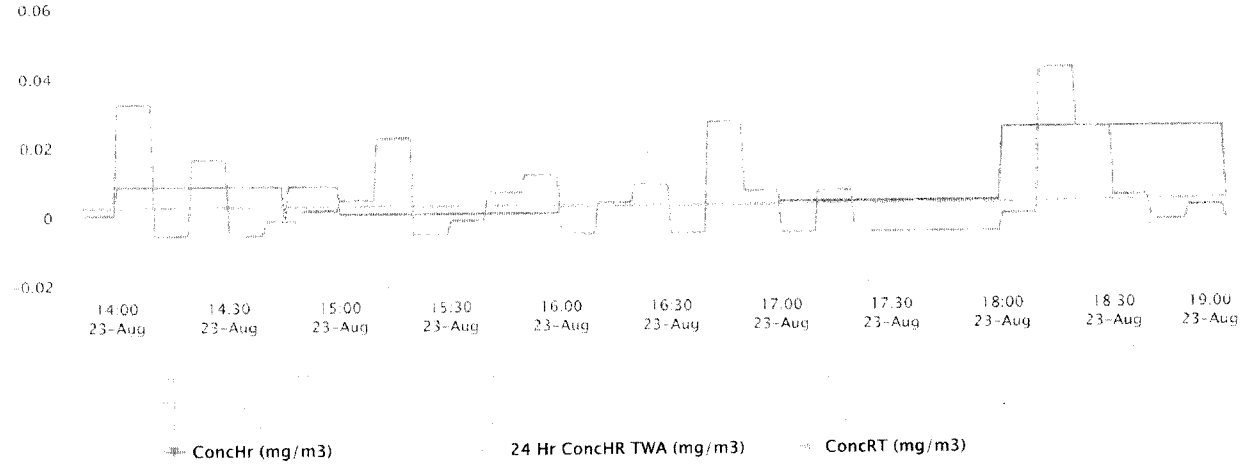
8/23/19 DAY Data for EBAM 1 (ConcRT) – Sun City



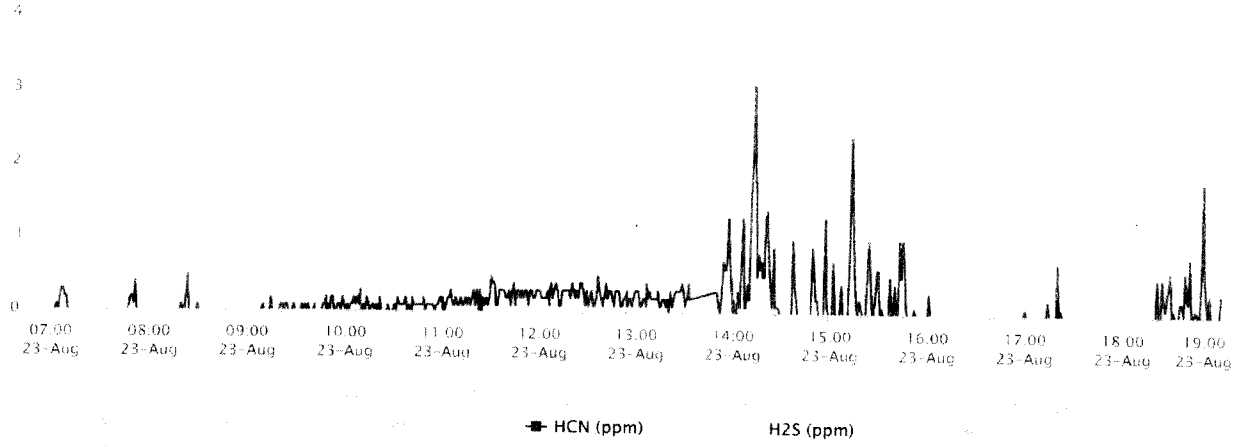
8/23/19 DAY Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



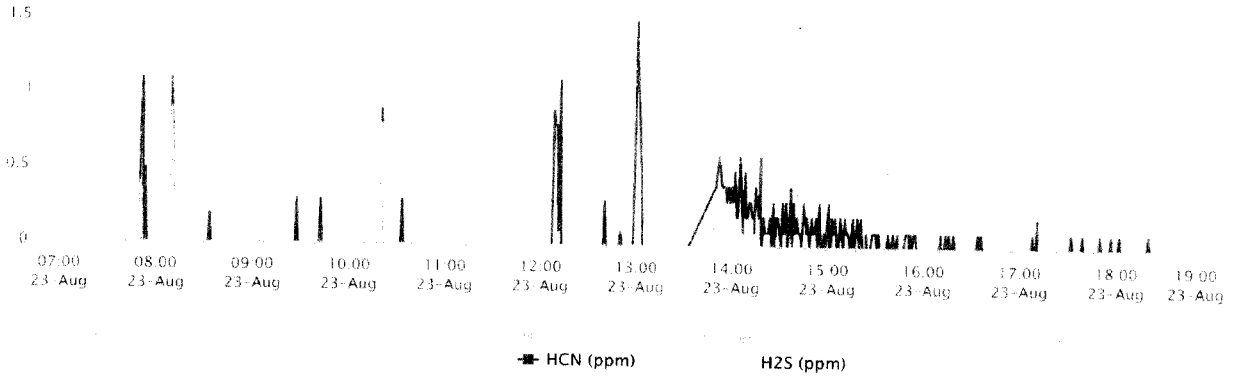
8/23/19 DAY Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



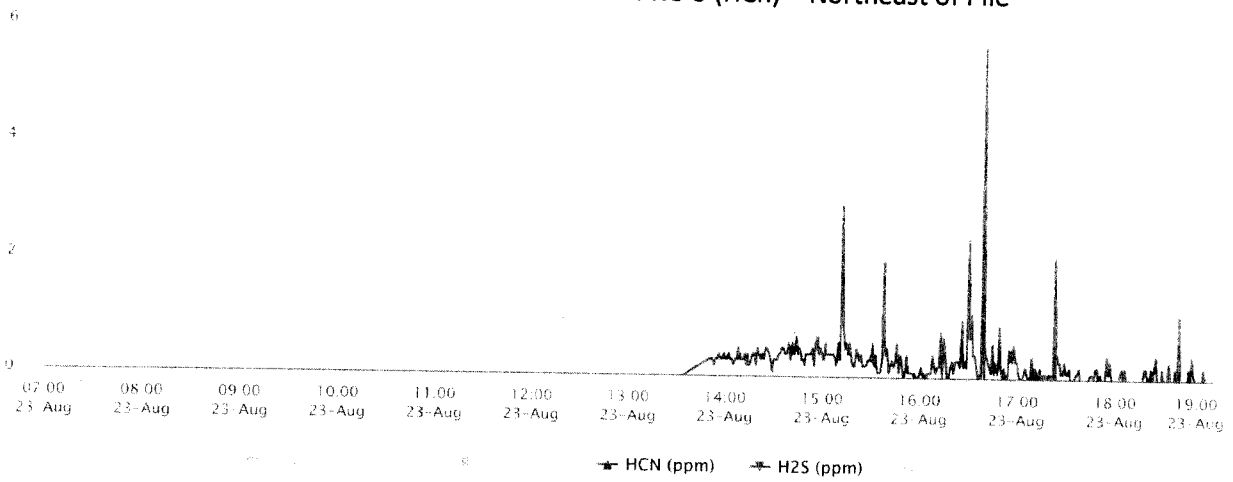
8/23/19 DAY Data for AREARAE PRO 1 (HCn) – Southwest of Pile



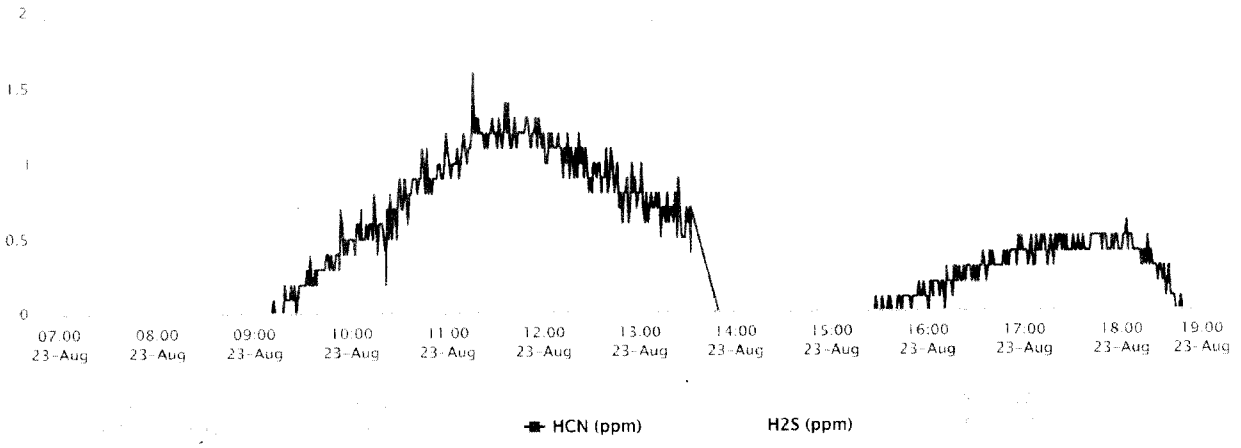
8/23/19 DAY Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/23/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/23/19 DAY Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	40.1-80.0	12.1-35.4	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive groups	80.1-175.0	35.5-55.4	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/23/19 19:00** ***To:*** **8/24/19 7:00**

On Site, Southeast Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	Yes	758	62	0 - 8742 ppb	20.34 ppb	1,000 ppb
	CO	No	758	134	0 - 28 ppm	0.96 ppm	83 ppm
	H_2S	No	758	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	758	758	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	758	0	0 - 0 %	0 %	10%
	HCN	Yes	758	348	0 - 13.5 ppm	0.4 ppm	7.1 ppm

Parent's Collision

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Good	1,008	480	0 - 13 $\mu g/m^3$	1.1 ug/m3	See SOG #: T106

On Site, Southwest Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	765	9	0 - 511 ppb	2.58 ppb	1,000 ppb
	CO	No	765	43	0 - 16 ppm	0.26 ppm	83 ppm
	H_2S	No	765	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	765	765	20.6 - 20.7 %	20.7 %	<19.5 or >23%
	LEL	No	765	0	0 - 0 %	0 %	10%
	HCN	No	765	29	0 - 1.2 ppm	0.02 ppm	7.1 ppm

Street Corner

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	939	939	1 - 214 $\mu g/m^3$	8.7 ug/m3	See SOG #: T106

Able Contracting Warehouse, Northeast of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	756	234	0 - 195 ppb	18.06 ppb	1,000 ppb
	CO	No	756	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	756	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	756	756	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	756	756	2 - 3 %	2 %	10%
	HCN	No	756	0	0 - 0 ppm	0 ppm	7.1 ppm

Grace Gospel Church

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	490	490	1 - 72 $\mu g/m^3$	6.8 ug/m3	See SOG #: T106

Forest Cemetery

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	769	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	769	17	0 - 6 ppm	0.08 ppm	83 ppm
	H_2S	No	769	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	769	769	20.4 - 20.9 %	20.5 %	<19.5 or >23%
	LEL	No	769	0	0 - 0 %	0 %	10%
	HCN	No	769	46	0 - 0.7 ppm	0.01 ppm	7.1 ppm

Salt City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Moderate	752	315	0 - 99 ug/m3	20.8 ug/m3	See SOG #: T106

Brooklyn Neighborhood

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	743	416	0 - 72 ug/m3	11.8 ug/m3	See SOG #: T106

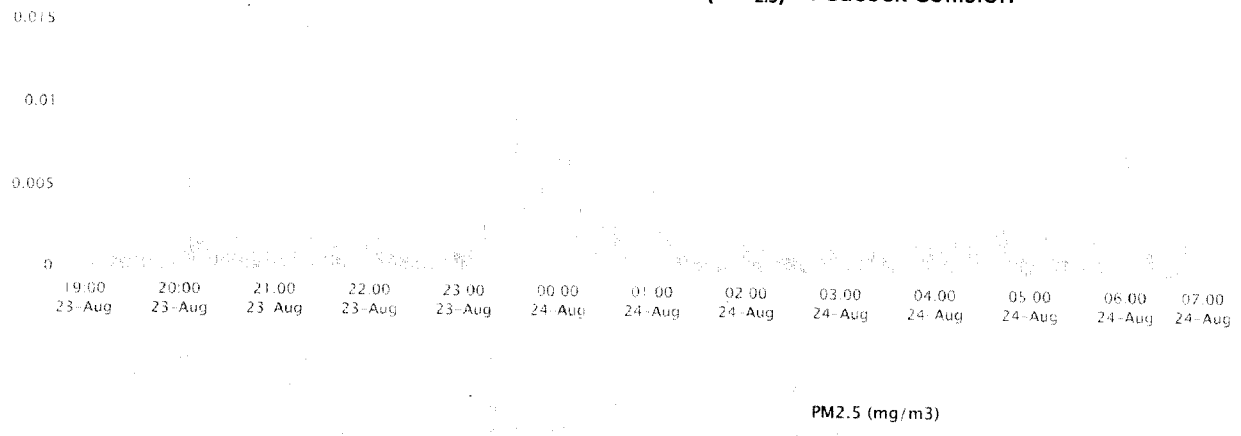
EPA Mobile Command Post

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Moderate	387	125	0 - 121 ug/m3	15.8 ug/m3	See SOG #: T106

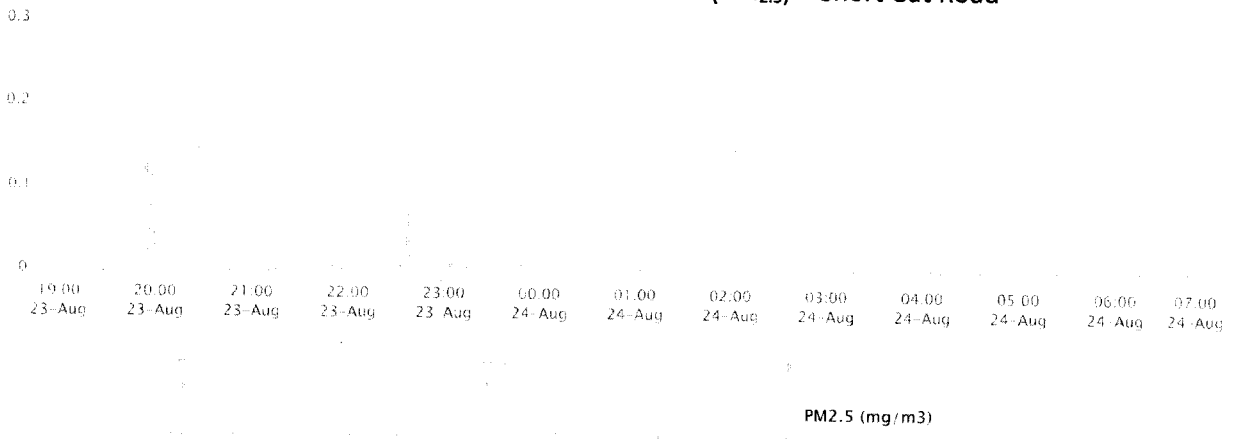
Notes:

- % Percent
- < Less than
- > Greater than
- AEGL Acute Exposure Guideline Levels for Airborne Chemicals
- CO Carbon monoxide
- H_2S Hydrogen Sulfide
- HCN Hydrogen Cyanide
- LEL Lower Explosive Level
- min Minute
- O_2 Oxygen
- PEL Permissible exposure limit
- ppb Parts per billion
- ppm Parts per million
- PM Particulate matter
- SOG Standard Operating Guidelines
- TLV Threshold limit value
- $\mu g/m^3$ Micrograms per cubic meter
- VOC Volatile organic compoud

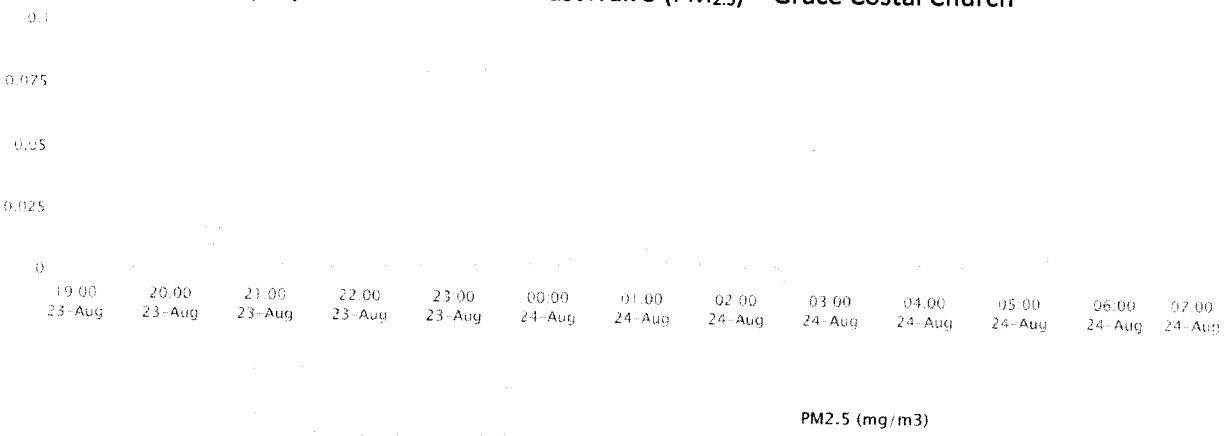
8/23/19 NIGHT Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



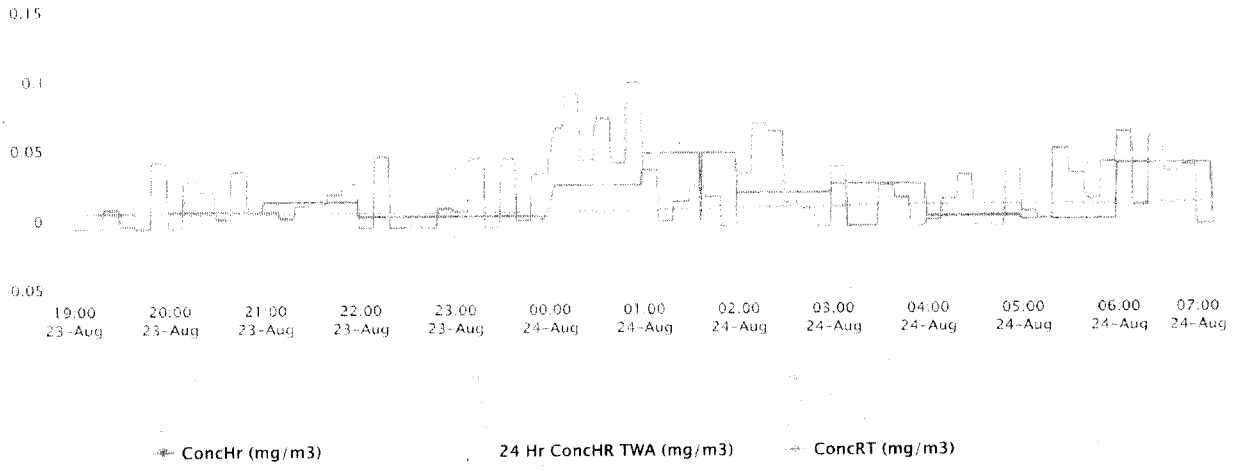
8/23/19 NIGHT Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



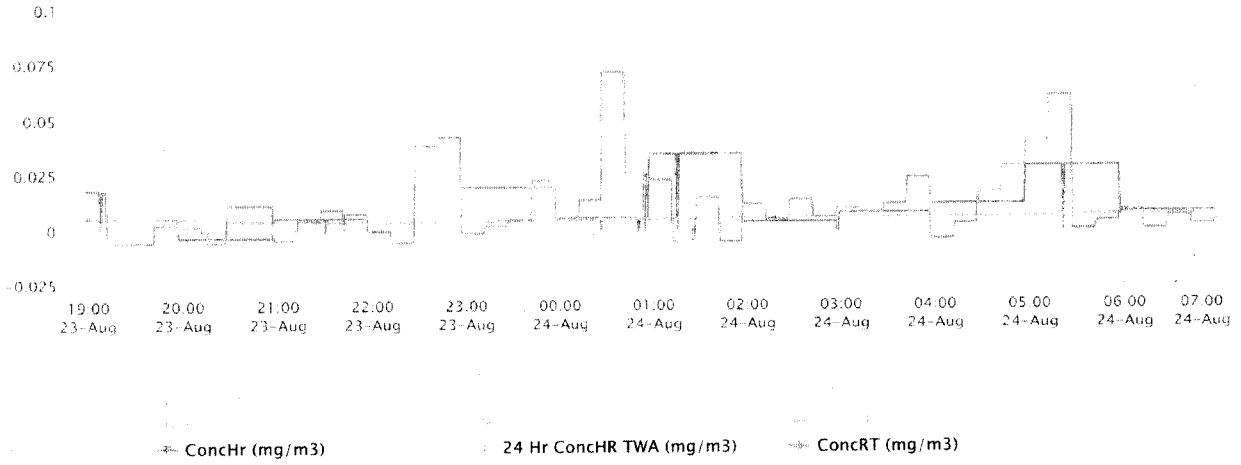
8/23/19 NIGHT Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



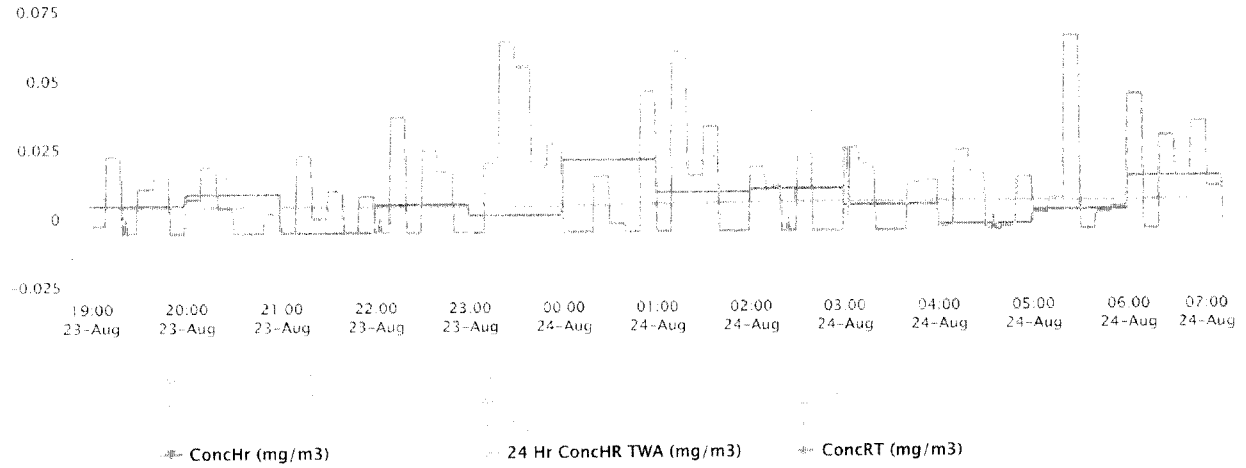
8/23/19 NIGHT Data for EBAM 1 (ConcRT) – Sun City



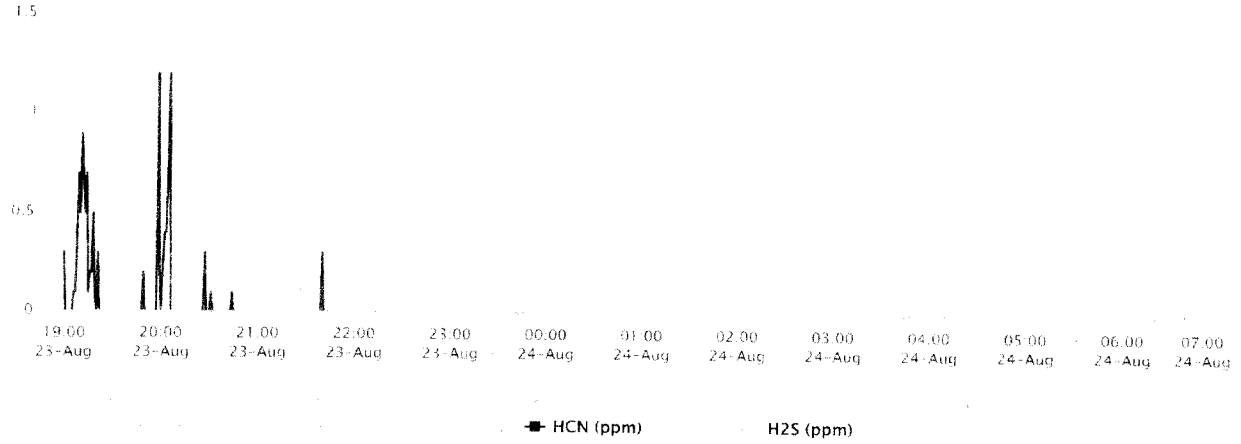
8/23/19 NIGHT Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



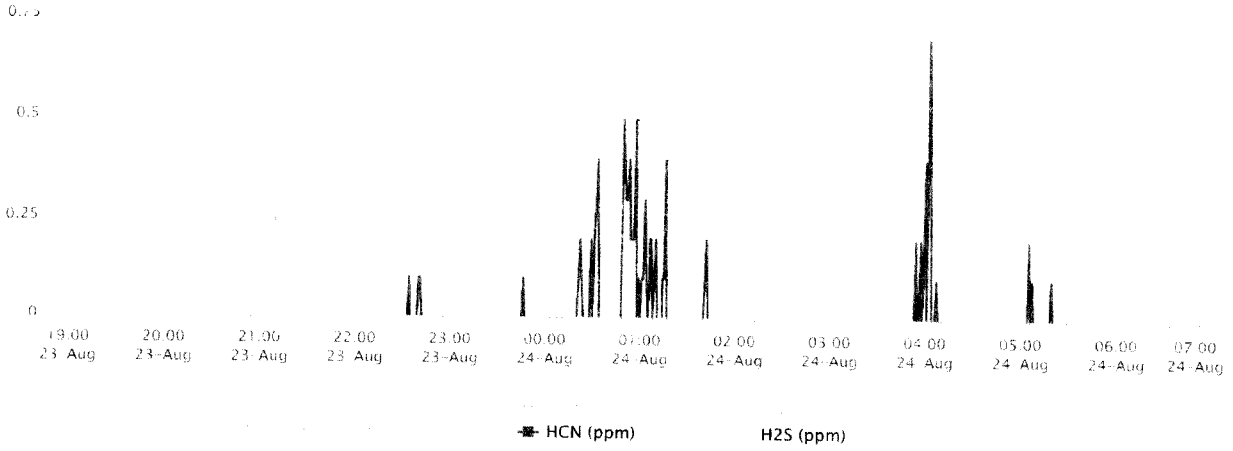
8/23/19 NIGHT Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



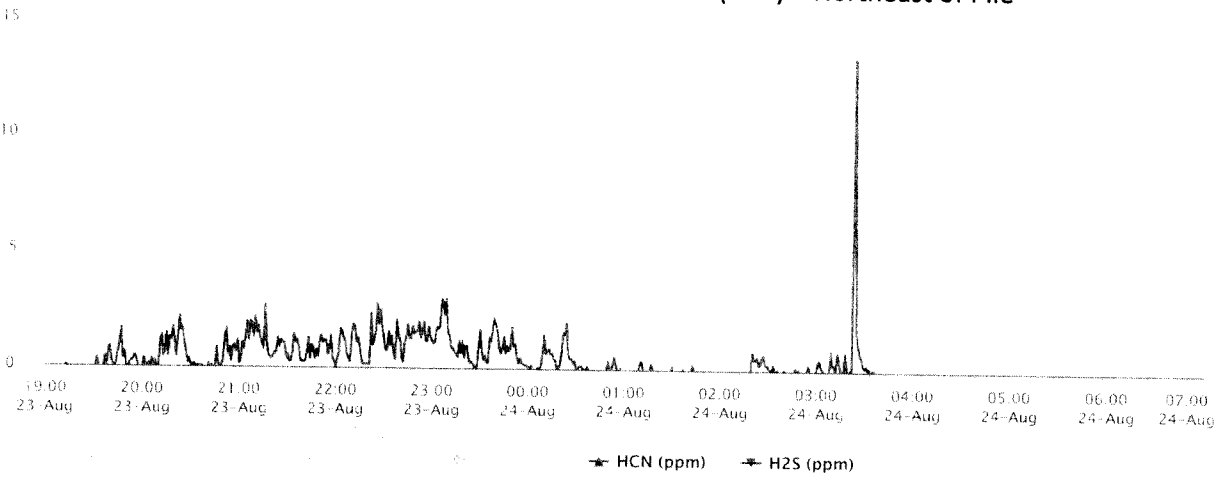
8/23/19 NIGHT Data for AREARAE PRO 1 (HCn) – Southwest of Pile



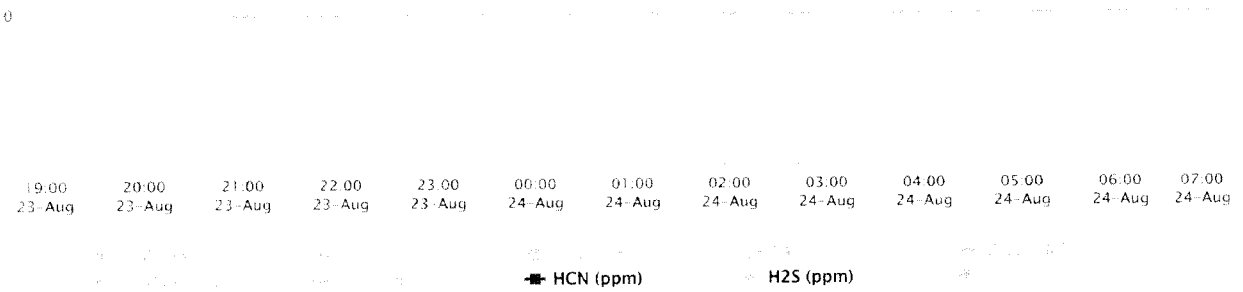
8/23/19 NIGHT Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/23/19 NIGHT Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/23/19 NIGHT Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	40.1-80.0	12.1-35.4	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive groups	80.1-175.0	35.5-55.4	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: **8/24/19 7:00** ***To:*** **8/24/19 19:00**

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	775	1	0 - 25 ppb	0.03 ppb	1,000 ppb
	CO	No	775	3	0 - 6 ppm	0.01 ppm	83 ppm
	H_2S	No	775	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	775	775	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	775	0	0 - 0 %	0 %	10%
	HCN	No	775	391	0 - 1.3 ppm	0.1 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Good	1,349	1,349	1 - 62 µg/m³	2.8 µg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	777	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	777	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	777	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	777	777	20.6 - 20.7 %	20.6 %	<19.5 or >23%
	LEL	No	777	0	0 - 0 %	0 %	10%
	HCN	No	777	111	0 - 1.8 ppm	0.05 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	685	685	4 - 34 µg/m³	5.8 µg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	775	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	775	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	775	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	775	775	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	775	775	2 - 3 %	2 %	10%
	HCN	No	775	0	0 - 0 ppm	0 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	1,326	1,326	1 -10 µg/m³	4.2 µg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	775	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	775	1	0 - 2 ppm	0 ppm	83 ppm
	H_2S	No	775	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	775	775	20.4 - 20.9 %	20.8 %	<19.5 or >23%
	LEL	No	775	0	0 - 0 %	0 %	10%
	HCN	No	775	320	0 - 1.4 ppm	0.22 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	744	39	0 - 124 µg/m³	10.9 µg/m³	See SOG #: T106

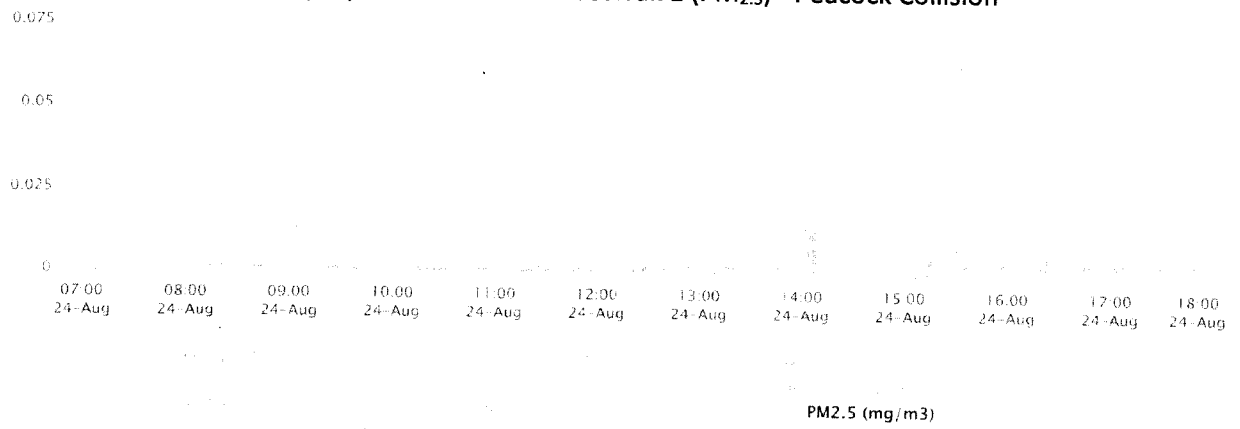
Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	753	98	0 - 42 µg/m³	4.3 µg/m³	See SOG #: T106

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	750	172	0 - 106 µg/m³	11.1 µg/m³	See SOG #: T106

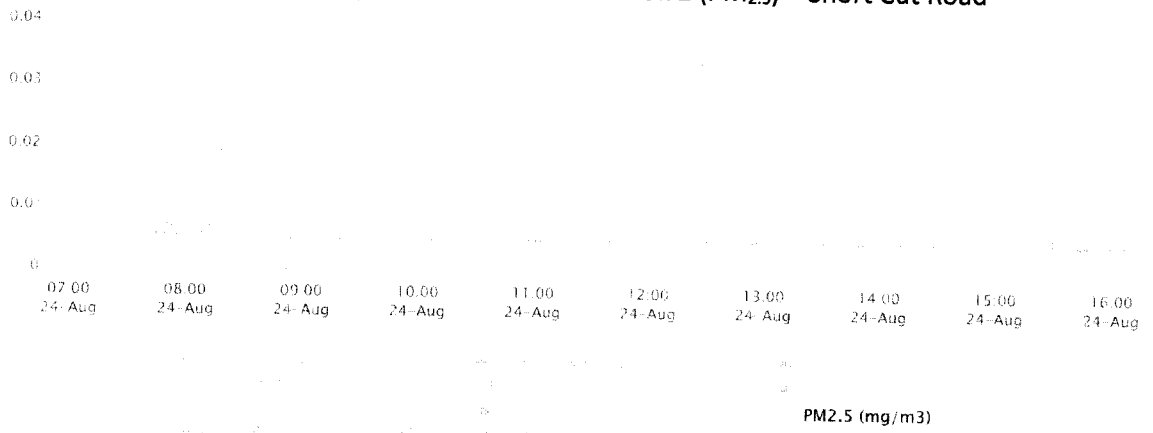
Notes:

%	Percent
<	Less than
>	Greater than
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals
CO	Carbon monoxide
H_2S	Hydrogen Sulfide
HCN	Hydrogen Cyanide
LEL	Lower Explosive Level
min	Minute
O_2	Oxygen
PEL	Permissible exposure limit
ppb	Parts per billion
ppm	Parts per million
PM	Particulate matter
SOG	Standard Operating Guidelines
TLV	Threshold limit value
µg/m³	Micrograms per cubic meter
VOC	Volatile organic compoud

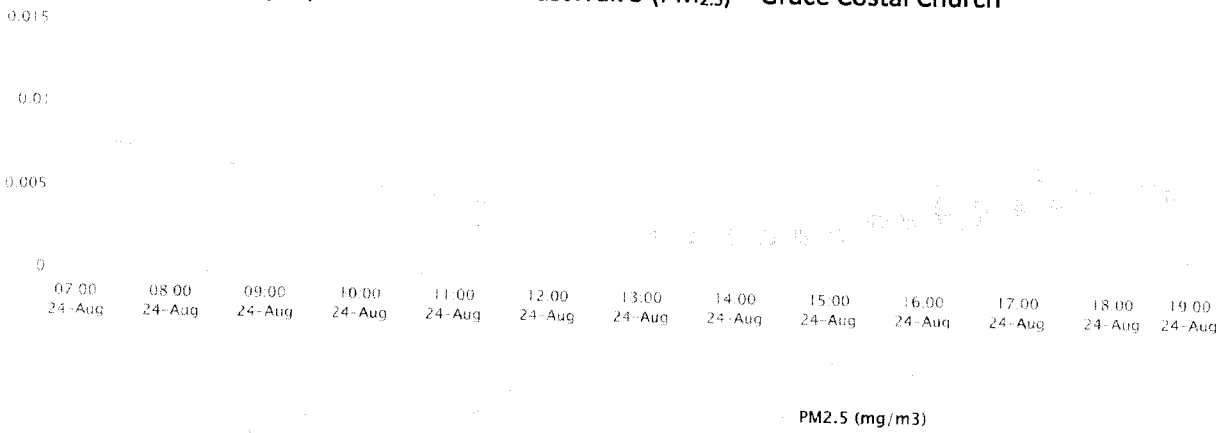
8/24/19 DAY Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



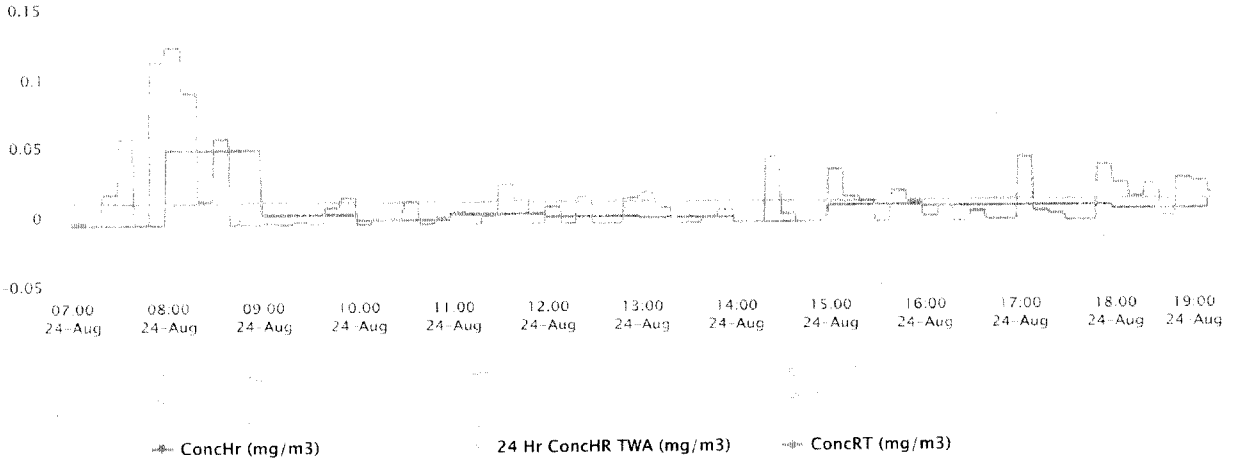
8/24/19 DAY Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



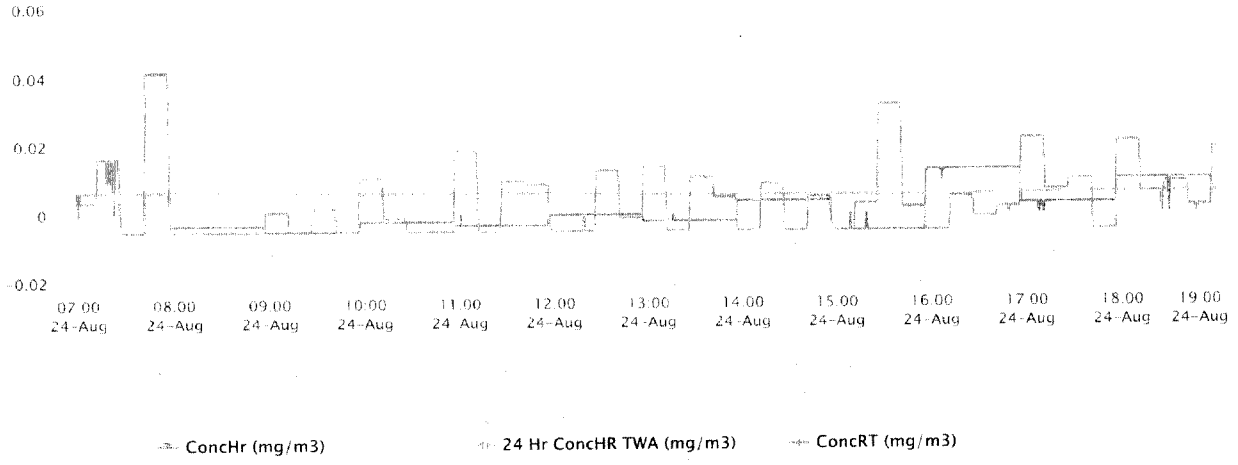
8/24/19 DAY Data for DustTrak 3 ($PM_{2.5}$) – Grace Costal Church



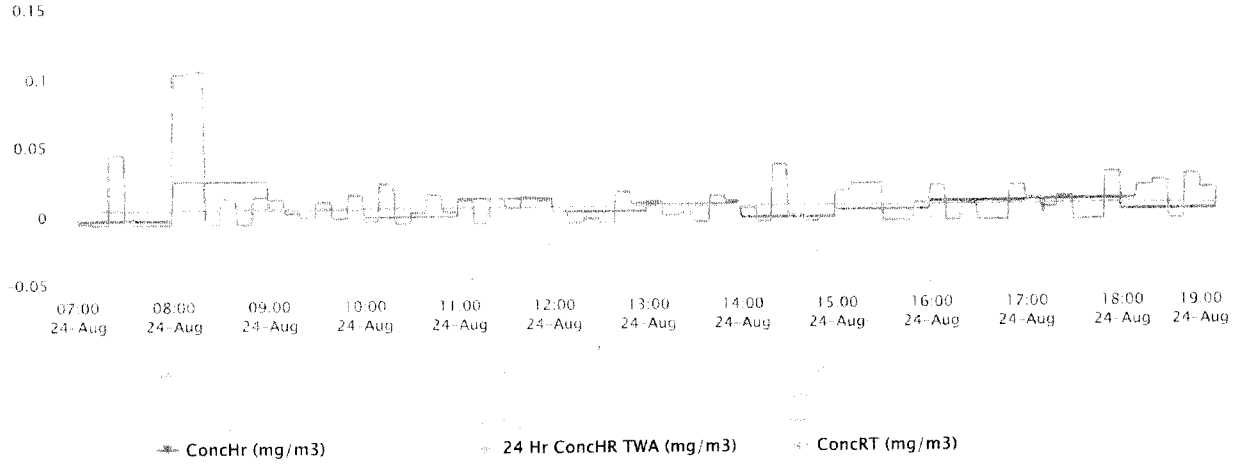
8/24/19 DAY Data for EBAM 1 (ConcRT) – Sun City



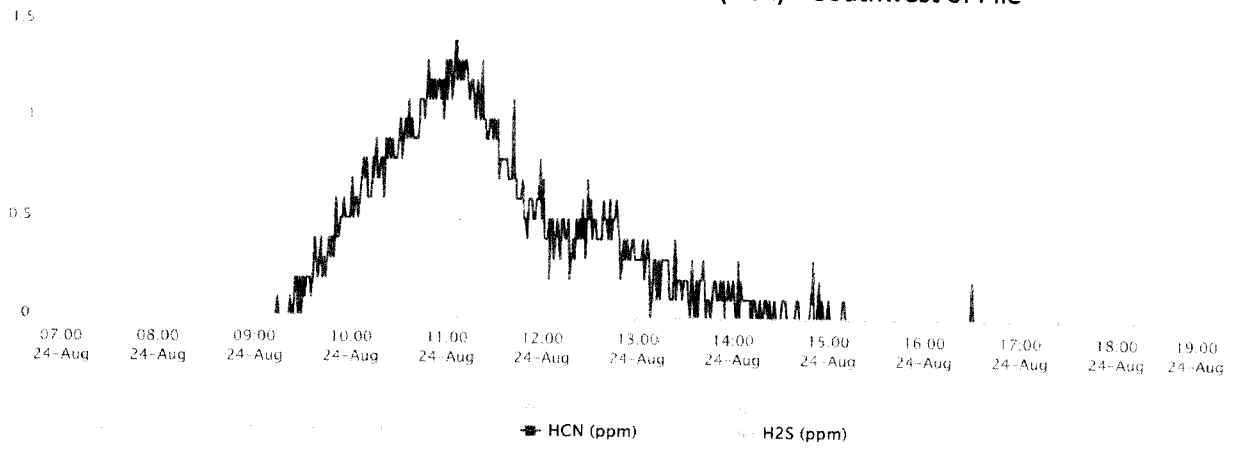
8/24/19 DAY Data for EBAM 2 (ConcRT) – Brooke Mill Apartments



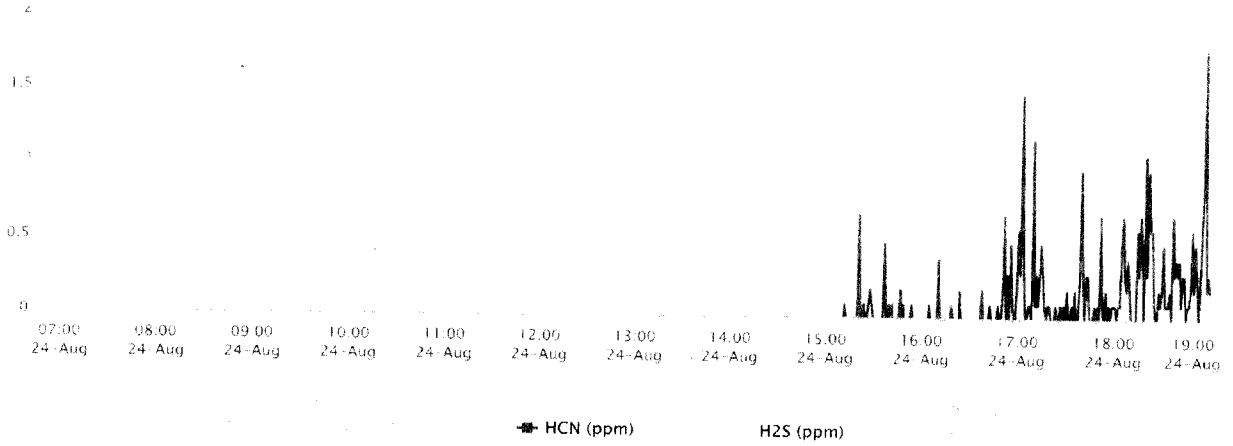
8/24/19 DAY Data for EBAM 3 (ConcRT) – EPA Mobile Command Post



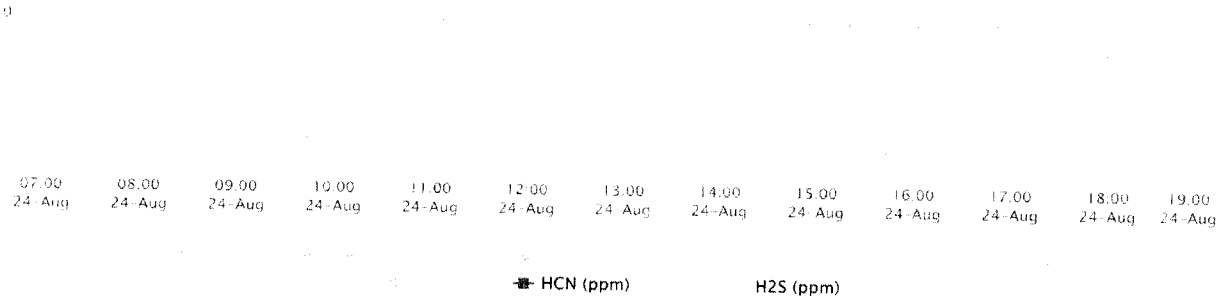
8/24/19 DAY Data for AREARAE PRO 1 (HCn) – Southwest of Pile



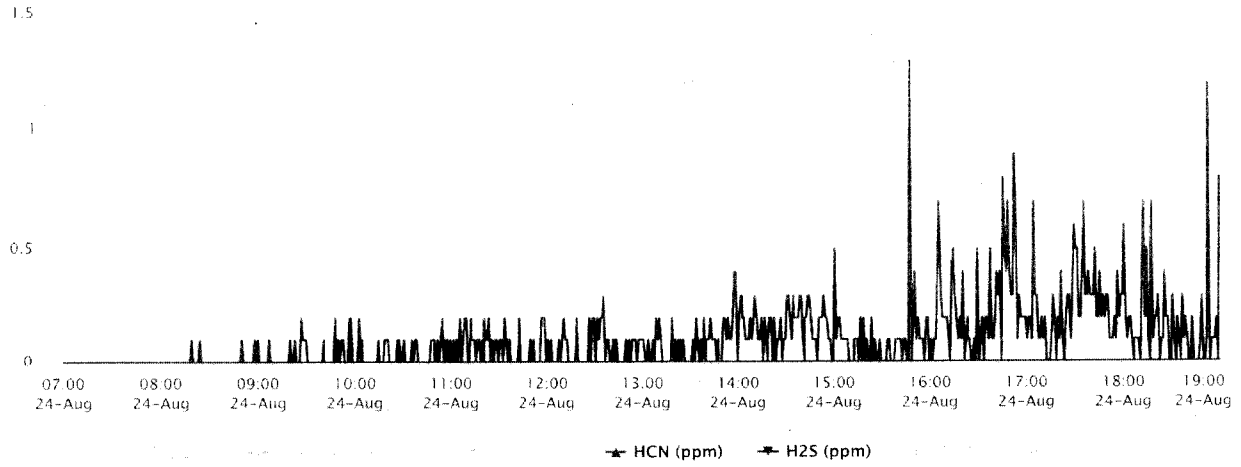
8/24/19 DAY Data for AREARAE PRO 2 (HCn) – Northwest of Pile



8/24/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



8/24/19 DAY Data for AREARAE PRO 4 (HCn) – Forrest Concrete



Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	40.1-80.0	12.1-35.4	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive groups	80.1-175.0	35.5-55.4	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: ***8/25/19 7:00*** ***To:*** ***8/25/19 19:00***

On Site, Southwest Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	No	591	10	0 - 562 ppb	3.27 ppb	1,000 ppb
	CO	No	591	2	0 - 5 ppm	0.02 ppm	83 ppm
	H_2S	No	591	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	591	591	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	591	0	0 - 0 %	0 %	10%
	HCN	No	591	261	0 - 1.8 ppm	0.1 ppm	7.1 ppm

Fenceline Collection

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Good	1,600	1,600	0 - 13 μg/m³	5.9 μg/m³	See SOG #: T106

On Site, Northeast Corner of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	594	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	594	6	0 - 4 ppm	0.03 ppm	83 ppm
	H_2S	No	594	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	594	594	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	594	0	0 - 0 %	0 %	10%
	HCN	No	594	0	0 - 0 ppm	0 ppm	7.1 ppm

Short Dirt Road

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	957	957	5 - 56 μg/m³	8.5 μg/m³	See SOG #: T106

Able Contracting, Middleton, Northeast of Site

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	586	5	0 - 826 ppb	4.67 ppb	1,000 ppb
	CO	No	586	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	586	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	586	586	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	586	0	0 - 0 %	0 %	10%
	HCN	No	586	0	0 - 0 ppm	0 ppm	7.1 ppm

Grace Construction

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	1,101	1,101	5 - 13 μg/m³	8.2 μg/m³	See SOG #: T106

Fernwood Concrete

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	587	0	0 - 0 ppb	0 ppb	1,000 ppb
	CO	No	587	1	0 - 2 ppm	0 ppm	83 ppm
	H_2S	No	587	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	587	587	20.5 - 20.9 %	20.8 %	<19.5 or >23%
	LEL	No	587	0	0 - 0 %	0 %	10%
	HCN	No	587	4	0 - 0.1 ppm	0 ppm	7.1 ppm

Sun City

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	574	192	0 - 24 μg/m³	5.8 μg/m³	See SOG #: T106

Sunset Hill Apartments

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	586	182	0 - 24 μg/m³	4.3 μg/m³	See SOG #: T106

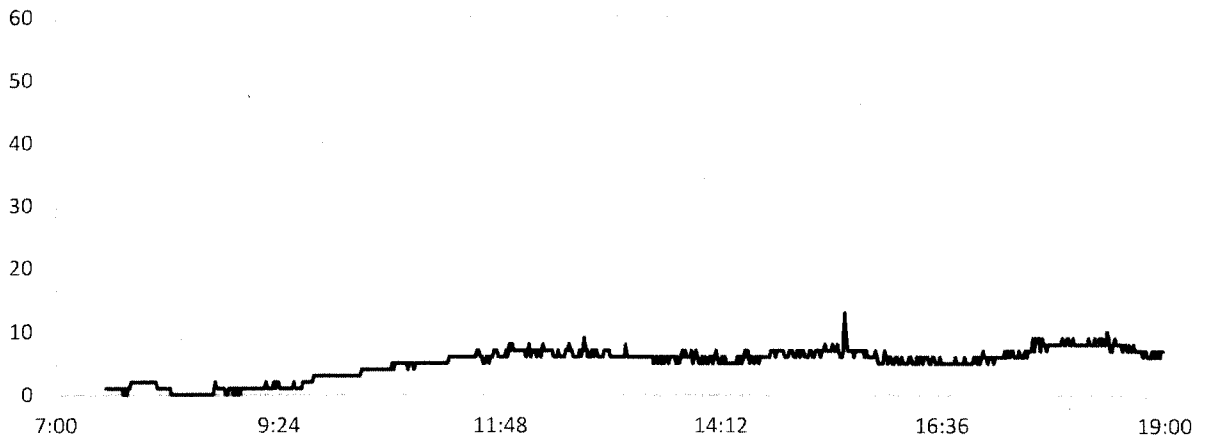
EPA Mobile Command Post

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	540	147	0 - 55 μg/m³	8.2 μg/m³	See SOG #: T106

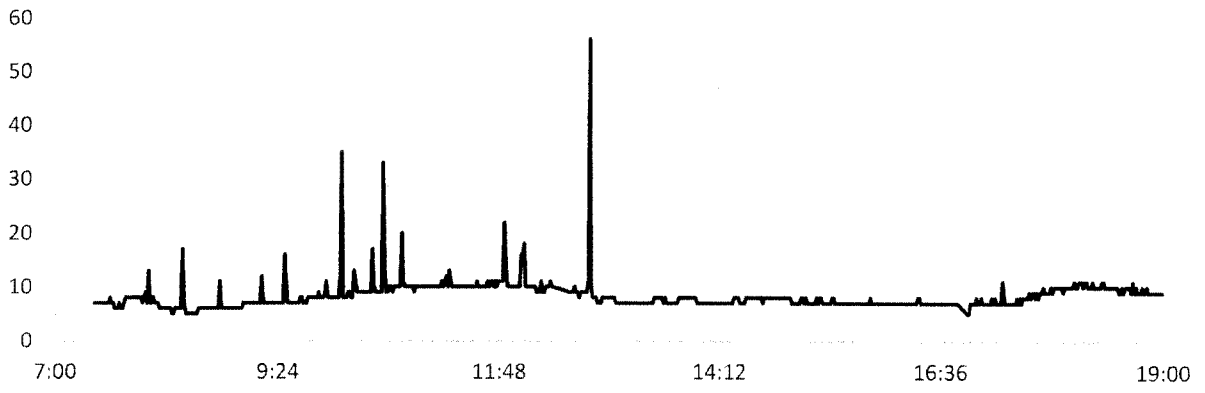
Notes:

%	Percent	O_2	Oxygen
<	Less than	PEL	Permissible exposure limit
>	Greater than	ppb	Parts per billion
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	ppm	Parts per million
CO	Carbon monoxide	PM	Particulate matter
H_2S	Hydrogen Sulfide	SOG	Standard Operating Guidelines
HCN	Hydrogen Cyanide	TLV	Threshold limit value
LEL	Lower Explosive Level	μg/m³	Micrograms per cubic meter
min	Minute	VOC	Volatile organic compoud

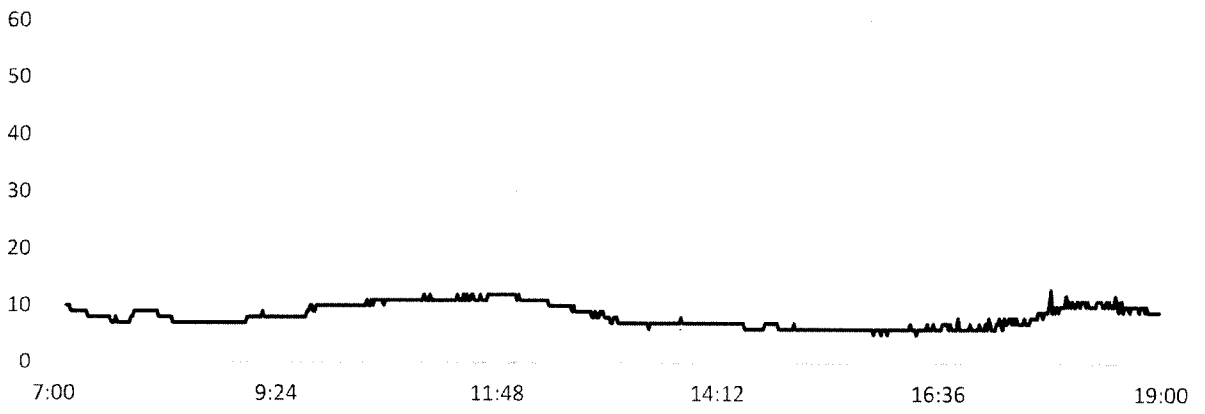
8/25/19 DAY Data for DustTrak 1 ($PM_{2.5}$) - Peacock Collision



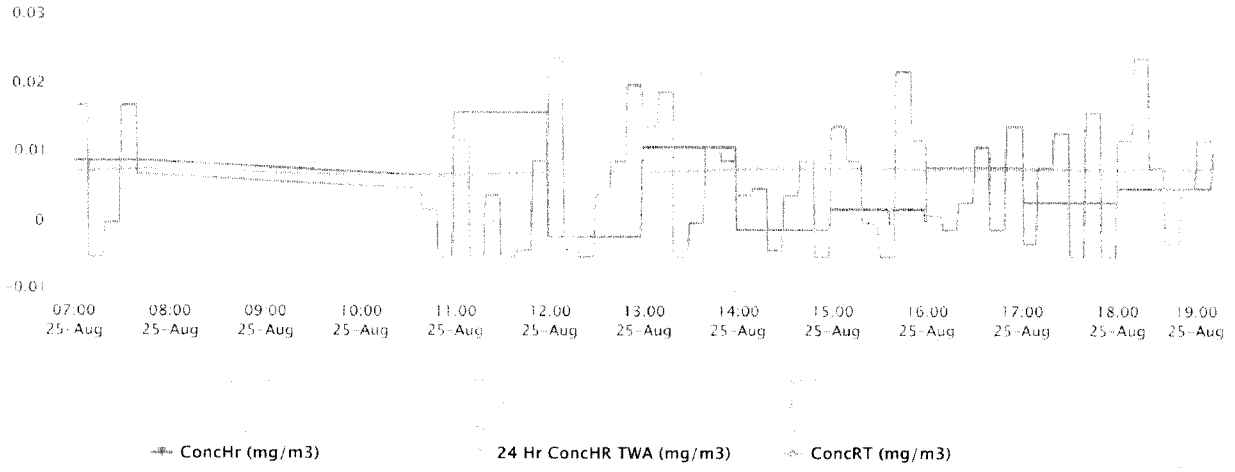
8/25/19 DAY Data for DustTrak 2 ($PM_{2.5}$) – Short Cut Road



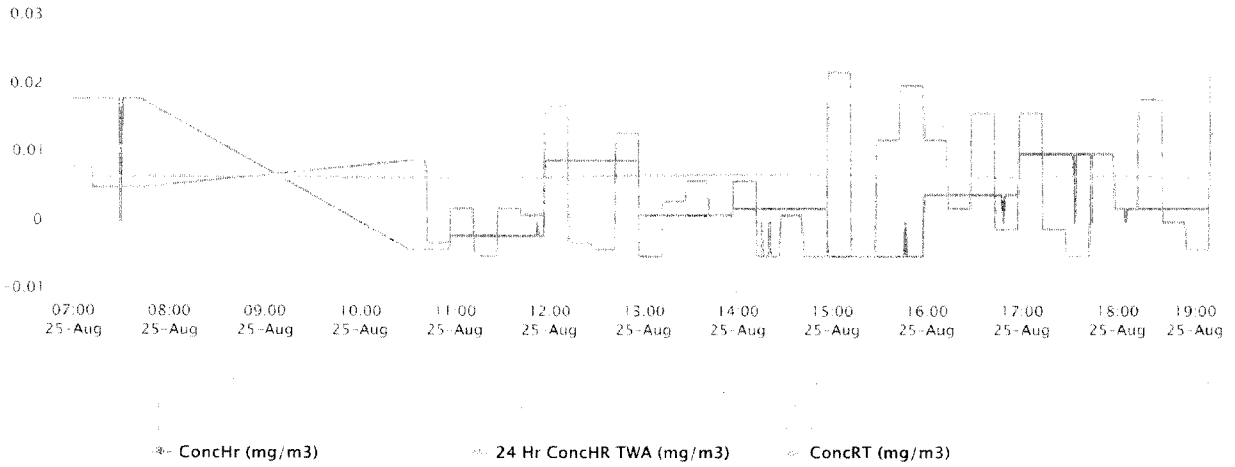
8/25/19 DAY Data for DustTrak 3 ($PM_{2.5}$) – Grace Coastal Church



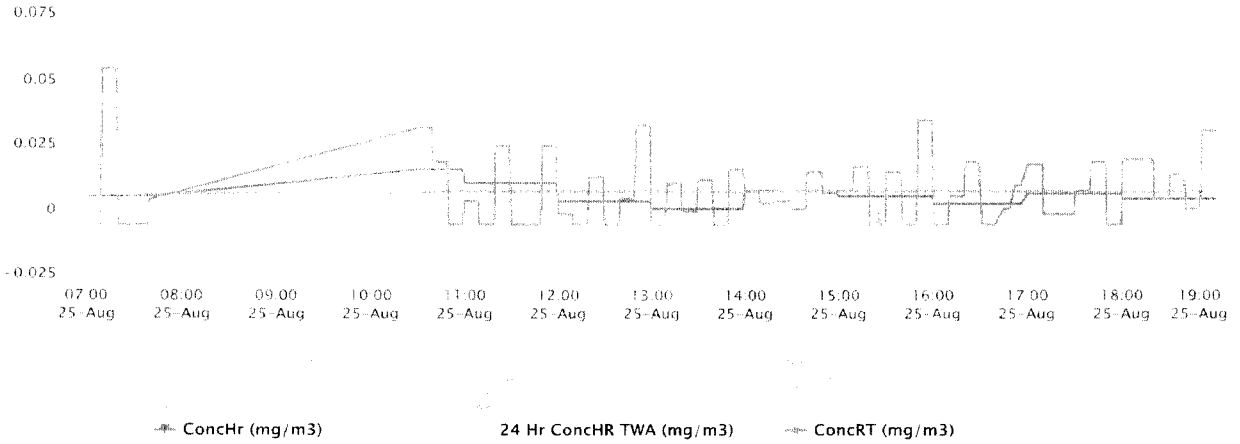
8/25/19 DAY Data for EBAM 1 (ConcRT) – Sun City



8/25/19 DAY Data for EBAM 2 (ConcRT) – Brooke Mill Apartments

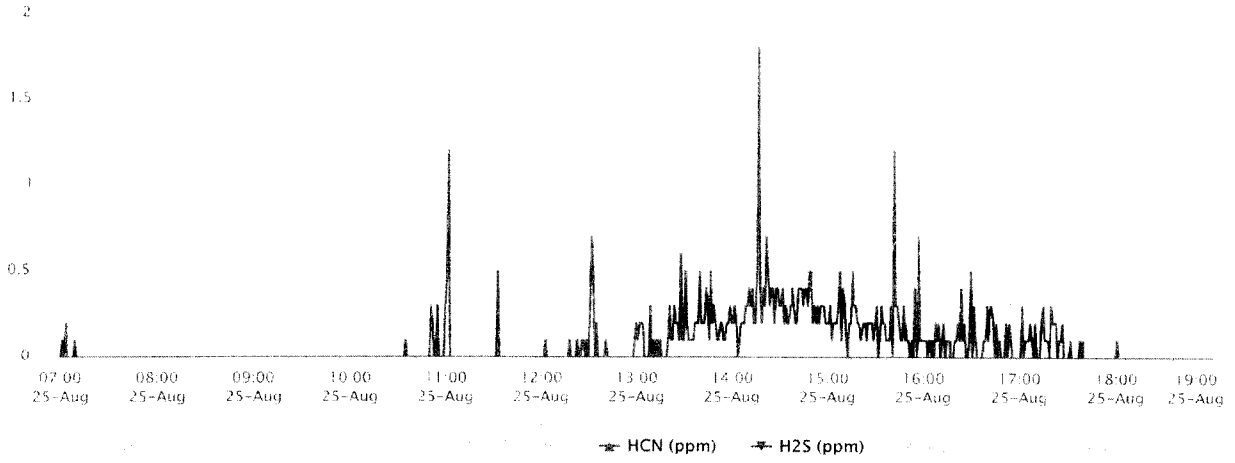


8/25/19 DAY Data for EBAM 3 (ConcRT) – EPA Mobile Command Post

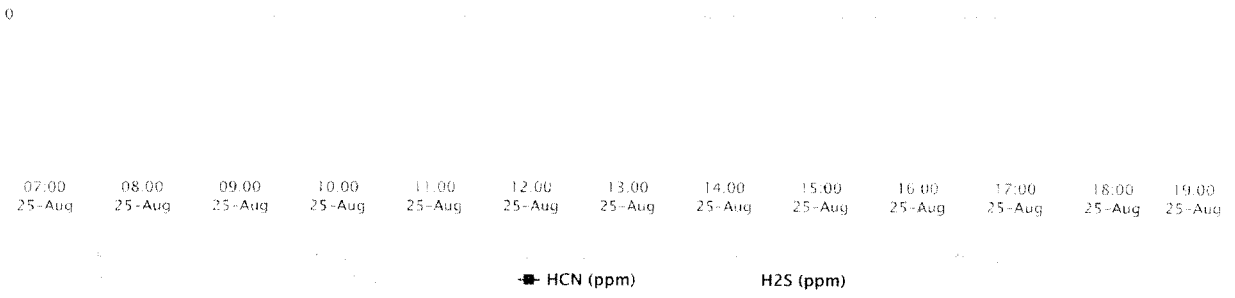


The VIPER run was paused between approximately 0745 and 1045 during the reporting period. This represents a data gap for EBAM and AreaRAE Pro data.

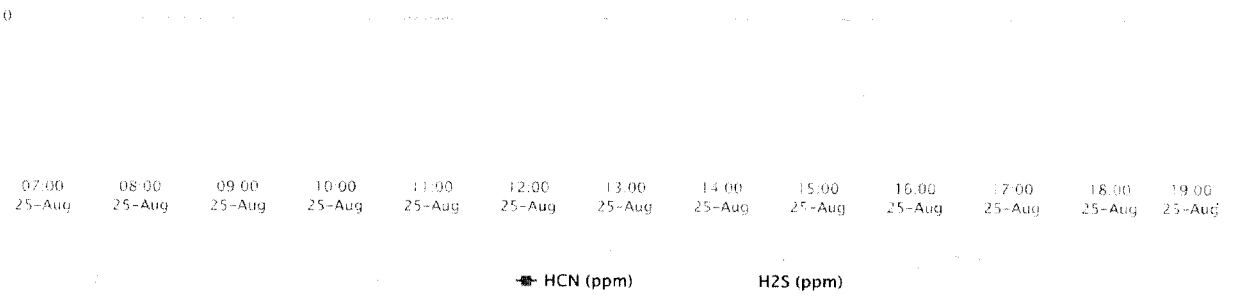
8/25/19 DAY Data for AREARAE PRO 1 (HCn) – Southwest of Pile



8/25/19 DAY Data for AREARAE PRO 2 (HCn) – Northwest of Pile

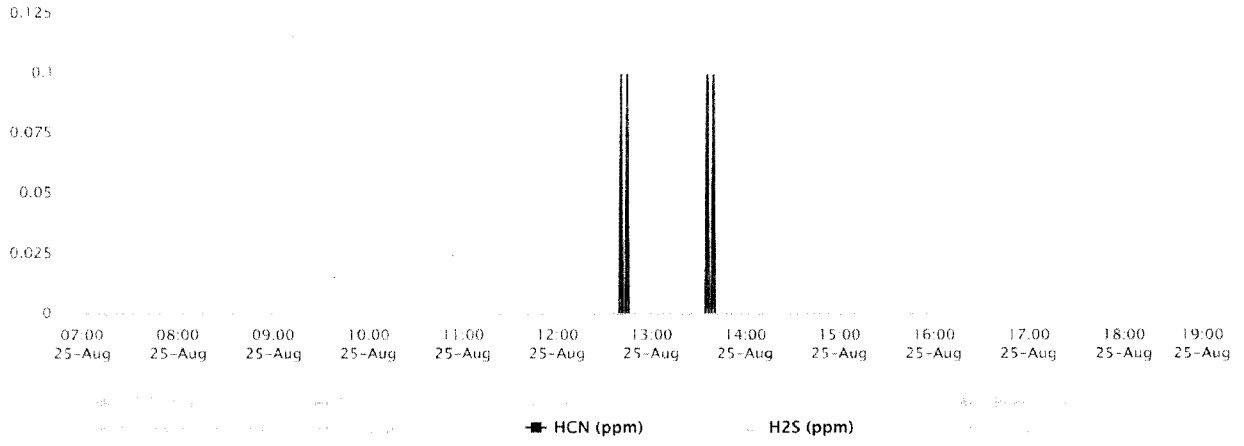


8/25/19 DAY Data for AREARAE PRO 3 (HCn) – Northeast of Pile



The VIPER run was paused between approximately 0745 and 1045 during the reporting period. This represents a data gap for EBAM and AreaRAE Pro data.

8/25/19 DAY Data for AREARAE PRO 4 (HCn) – Forrest Concrete



The VIPER run was paused between approximately 0745 and 1045 during the reporting period. This represents a data gap for EBAM and AreaRAE Pro data.

Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	**40.1-80.0**	**12.1-35.4**	**Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.**
Unhealthy for Sensitive groups	**80.1-175.0**	**35.5-55.4**	**Members of sensitive groups may experience health effects. The general public is not likely to be affected.**
Unhealthy	175.1-300.0	55.5-150.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	300.1-500.0	150.5-250.4	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
- Recommendations are from the EPA Air Now web site.
- People who are unusually sensitive to air pollution are a subset of Sensitive Individuals. Unusually sensitive to air pollution can be defined as the very young, the elderly, pregnant women, and the immunocompromised.
- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: **Able Contracting Fire Site**

From: ***8/26/19 7:00*** ***To:*** ***8/27/19 7:00***

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 1	VOC	Yes	1,328	902	0 - 14814 ppb	241.72 ppb	1,000 ppb
	CO	No	1,328	5	0 - 16 ppm	0.02 ppm	83 ppm
	H_2S	Yes	1,328	10	0 - 0.6 ppm	0.004 ppm	0.5 ppm
	O_2	No	1,328	1,328	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	1,328	0	0 - 0 %	0 %	10%
	HCN	No	1,328	813	0 - 5.6 ppm	0.67 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 1	PM-2.5	Good	4,283	2,537	0 - 29 μg/m³	2.6 μg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 2	VOC	No	1,349	913	0 - 445 ppb	182.95 ppb	1,000 ppb
	CO	No	1,349	23	0 - 21 ppm	0.12 ppm	83 ppm
	H_2S	Yes	1,349	11	0 - 0.9 ppm	0.005 ppm	0.5 ppm
	O_2	No	1,349	1,349	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	1,349	0	0 - 0 %	0 %	10%
	HCN	No	1,349	364	0 - 5.7 ppm	0.39 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 2	PM-2.5	Good	4,393	4,393	1 - 254 μg/m³	5.2 μg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 3	VOC	No	1,350	1,067	0 - 423 ppb	163.79 ppb	1,000 ppb
	CO	No	1,350	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	Yes	1,350	1	0 - 0.6 ppm	0 ppm	0.5 ppm
	O_2	No	1,350	1,350	20.9 - 20.9 %	20.9 %	<19.5 or >23%
	LEL	No	1,350	0	0 - 0 %	0 %	10%
	HCN	No	1,350	15	0 - 1.8 ppm	0.01 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
DustTrak 3	PM-2.5	Good	1,431	1,431	4 - 13 μg/m³	5.9 μg/m³	See SOG #: T106

Instrument	Analyte	Action Level Exceedances	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
AreaRAE 4	VOC	No	1,348	116	0 - 378 ppb	1.48 ppb	1,000 ppb
	CO	No	1,348	0	0 - 0 ppm	0 ppm	83 ppm
	H_2S	No	1,348	0	0 - 0 ppm	0 ppm	0.5 ppm
	O_2	No	1,348	1,348	20.4 - 21.3 %	20.8 %	<19.5 or >23%
	LEL	No	1,348	0	0 - 0 %	0 %	10%
	HCN	No	1,348	530	0 - 1.9 ppm	0.15 ppm	7.1 ppm

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 1	PM-2.5	Good	1,495	540	0 - 71 μg/m³	9.4 μg/m³	See SOG #: T106

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 2	PM-2.5	Good	1,495	844	0 - 50 μg/m³	8.7 μg/m³	See SOG #: T106

Instrument	Analyte	Air Quality Index	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level (PEL/TLV/60 min AEGL)
EBAM 3	PM-2.5	Good	1,507	521	0 - 79 μg/m³	9.7 μg/m³	See SOG #: T106

Notes:

- % Percent
- < Less than
- > Greater than
- AEGL Acute Exposure Guideline Levels for Airborne Chemicals
- CO Carbon monoxide
- H_2S Hydrogen Sulfide
- HCN Hydrogen Cyanide
- LEL Lower Explosive Level
- min Minute
- O_2 Oxygen
- PEL Permissible exposure limit
- ppb Parts per billion
- ppm Parts per million
- PM Particulate matter
- SOG Standard Operating Guidelines
- TLV Threshold limit value
- μg/m³ Micrograms per cubic meter
- VOC Volatile organic compoud

Threshold Values and Air Quality Index Categories for PM2.5

Level of Health Concern	Particulate Matter ≤2.5 microns measured in µg/m3		Interpretation
	1 hour average	24 hour average	
Good	0.0-40.0	0.0-12.0	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	40.1-80.0	12.1-35.4	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive groups	80.1-175.0	35.5-55.4	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
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Hazardous	>500.0	>250.5	Health alert: everyone may experience more serious health effects

- Threshold values taken from original EPA AQI online calculator found at http://airnow.gov/index.cfm?action=resources.aqi_conc_calc for PM2.5 (24 hour) and Idaho Department of Environmental Quality AQI for PM2.5 (1 hour) taken from http://app.airsis.com/usfs/aqi.asp.
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- Sensitive individuals defined as people with lung disease, older adults and children who are at a greater risk from exposure to ozone; and persons with heart and lung disease, older adults and children who are at greater risk from the presence of particles in the air.

From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Friday, August 23, 2019 2:44:18 PM
To: Tanner, Terry <Tanner.Terry@epa.gov>; Huyser, Matthew <Huyser.Matthew@epa.gov>; Marcus, Mike <MARCUSJM@dhec.sc.gov>; tricia.kilgore@bjwsa.org
CC: Spurlin, Steve <Spurlin.Steve@epa.gov>; Byrd, Terrence <Byrd.Terrence@epa.gov>
Subject: FW: PFAS (Novacool)
Attachments: 2044938-Novacool UEF 05-21-2019.pdf (622.61 KB), PFAS testing.pdf (66.94 KB)

Good Morning Everyone:

Forwarded for situational awareness.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:40 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: PFAS

Hi Chris here are the links for the testing of novacool for PFAS.

-----Original Message-----
From: Paul Berger <Paul@baumscastorine.com>
To: Sales <ucfm1@aol.com>
Sent: Fri, Jul 19, 2019 12:31 pm
Subject: PFAS

Bill,

Please see attached. Please call when you get this.

Paul H. Berger
Baum's Castorine Co. Inc.
315-336-8154

Armstrong, Kathy

From: Russell, Chris
Sent: Friday, August 23, 2019 10:44 AM
To: Tanner, Terry; Huyser, Matthew; Marcus, Mike; tricia.kilgore@bjwsa.org
Cc: Spurlin, Steve; Byrd, Terrence
Subject: FW: PFAS (Novacool)
Attachments: 2044938-Novacool UEF 05-21-2019.pdf; PFAS testing.pdf

Good Morning Everyone:

Forwarded for situational awareness.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Sales <ucfm1@aol.com>
Sent: Friday, August 23, 2019 10:40 AM
To: Russell, Chris <Russell.Chris@epa.gov>
Subject: Fwd: PFAS

Hi Chris here are the links for the testing of novacool for PFAS.

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To: Sales <ucfm1@aol.com>
Sent: Fri, Jul 19, 2019 12:31 pm
Subject: PFAS

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Paul H. Berger
Baum's Castorine Co. Inc.
315-336-8154

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Baum's Castorine Co. Inc.
200 Matthew Street
Rome NY 13440

Report Date: June 10, 2019 14:14

Project: Novacool UEF

Account #: 44390
Group Number: 2044938
PO Number: 010980
State of Sample Origin: NY

Electronic Copy To Baum's Castorine Co. Inc. Attn: Paul Berger

Respectfully Submitted,

Elizabeth M. Bauer

Elizabeth M. Bauer
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
Novacool UEF Product Sample	05/17/2019 15:30	1062334

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

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Sample Description: **Novacool UEF Product Sample**

Project Name: **Novacool UEF**

Baum's Castorine Co. Inc.
ELLE Sample #: G5 1062334
ELLE Group #: 2044938
Matrix: Misc Organic

Submittal Date/Time: 05/21/2019 09:50
Collection Date/Time: 05/17/2019 15:30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 Version 1.1 Modified**		ng/l	ng/l	
14473	10:2Fluorotelomersulfonic acid	120226-60-0	< 15,000	15,000	10
14473	4:2-Fluorotelomersulfonic acid	757124-72-4	< 15,000	15,000	10
14473	6:2-Fluorotelomersulfonic acid	27619-97-2	< 10,000	10,000	10
14473	8:2-Fluorotelomersulfonic acid	39108-34-4	< 30,000	30,000	10
14473	NEtFOSAA	2991-50-6	< 15,000	15,000	10
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14473	NEtPFOSA	4151-50-2	< 45,000	45,000	10
	NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide				
14473	NEtPFOSAE	1691-99-2	< 15,000	15,000	10
	NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol				
14473	NMeFOSAA	2355-31-9	< 15,000	15,000	10
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14473	NMePFOSA	31506-32-8	< 45,000	45,000	10
	NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide				
14473	NMePFOSAE	24448-09-7	< 15,000	15,000	10
	NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol				
14473	Perfluorobutanesulfonic acid	375-73-5	< 5,000	5,000	10
14473	Perfluorobutanoic acid	375-22-4	< 30,000	30,000	10
14473	Perfluorodecanesulfonic acid	335-77-3	< 10,000	10,000	10
14473	Perfluorodecanoic acid	335-76-2	< 10,000	10,000	10
14473	Perfluorododecanesulfonic acid	79780-39-5	< 5,000	5,000	10
14473	Perfluorododecanoic acid	307-55-1	< 10,000	10,000	10
14473	Perfluoroheptanesulfonic acid	375-92-8	< 10,000	10,000	10
14473	Perfluoroheptanoic acid	375-85-9	< 5,000	5,000	10
14473	Perfluorohexadecanoic acid	67905-19-5	< 5,000	5,000	10
14473	Perfluorohexanesulfonic acid	355-46-4	< 10,000	10,000	10
14473	Perfluorohexanoic acid	307-24-4	< 10,000	10,000	10
14473	Perfluorononanesulfonic acid	68259-12-1	< 10,000	10,000	10
14473	Perfluorononanoic acid	375-95-1	< 10,000	10,000	10
14473	Perfluorooctadecanoic acid	16517-11-6	< 10,000	10,000	10
14473	Perfluorooctanesulfonamide	754-91-6	< 15,000	15,000	10
14473	Perfluorooctanesulfonic acid	1763-23-1	< 10,000	10,000	10
14473	Perfluorooctanoic acid	335-67-1	< 5,000	5,000	10
14473	Perfluoropentanesulfonate	2706-91-4	< 10,000	10,000	10
14473	Perfluoropentanoic acid	2706-90-3	< 30,000	30,000	10
14473	Perfluorotetradecanoic acid	376-06-7	< 5,000	5,000	10
14473	Perfluorotridecanoic acid	72629-94-8	< 5,000	5,000	10
14473	Perfluoroundecanoic acid	2058-94-8	< 10,000	10,000	10

Reporting limits were raised due to interference from the sample matrix.

The recovery for sample injection standard peak areas and several extraction standards is outside of QC acceptance limits as noted on the QC Summary due to the matrix of the sample.

Target analytes were outside of QC acceptance limits as noted on the QC Summary in the Laboratory Control Spike(s) associated with this

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Analysis Report

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Sample Description: **Novacool UEF Product Sample**

Project Name: **Novacool UEF**

Baum's Castorine Co. Inc.
ELLE Sample #: G5 1062334
ELLE Group #: 2044938
Matrix: Misc Organic

Submittal Date/Time: 05/21/2019 09:50
Collection Date/Time: 05/17/2019 15:30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
sample.					

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS in Product	EPA 537 Version 1.1 Modified	1	19151013	06/05/2019 17:07	Jason W Knight	10
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19151013	05/31/2019 12:10	Robert Brown	1

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Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ng/l	ng/l
Batch number: 19151013	Sample number(s): 1062334	
10:2Fluorotelomersulfonic acid	< 1,500	1,500
4:2-Fluorotelomersulfonic acid	< 1,500	1,500
6:2-Fluorotelomersulfonic acid	< 1,000	1,000
8:2-Fluorotelomersulfonic acid	< 3,000	3,000
NEtFOSAA	< 1,500	1,500
NEtPFOSA	< 4,500	4,500
NEtPFOSAE	< 1,500	1,500
NMeFOSAA	< 1,500	1,500
NMePFOSA	< 4,500	4,500
NMePFOSAE	< 1,500	1,500
Perfluorobutanesulfonic acid	< 500	500
Perfluorobutanoic acid	< 3,000	3,000
Perfluorodecanesulfonic acid	< 1,000	1,000
Perfluorodecanoic acid	< 1,000	1,000
Perfluorododecanesulfonic acid	< 500	500
Perfluorododecanoic acid	< 1,000	1,000
Perfluoroheptanesulfonic acid	< 1,000	1,000
Perfluoroheptanoic acid	< 500	500
Perfluorohexadecanoic acid	< 500	500
Perfluorohexanesulfonic acid	< 1,000	1,000
Perfluorohexanoic acid	< 1,000	1,000
Perfluorononanesulfonic acid	< 1,000	1,000
Perfluorononanoic acid	< 1,000	1,000
Perfluorooctadecanoic acid	< 1,000	1,000
Perfluorooctanesulfonamide	< 1,500	1,500
Perfluorooctanesulfonic acid	< 1,000	1,000
Perfluorooctanoic acid	< 500	500
Perfluoropentanesulfonate	< 1,000	1,000
Perfluoropentanoic acid	< 3,000	3,000
Perfluorotetradecanoic acid	< 500	500
Perfluorotridecanoic acid	< 500	500
Perfluoroundecanoic acid	< 1,000	1,000

LCS/LCSD

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19151013	Sample number(s): 1062334								
10:2Fluorotelomersulfonic acid	3856	4205.1	3856	4042.04	109	105	49-186	4	30
4:2-Fluorotelomersulfonic acid	3736	3528.35	3736	3839.41	94	103	82-152	8	30
6:2-Fluorotelomersulfonic acid	3792	4039.56	3792	4165.05	107	110	66-155	3	30
8:2-Fluorotelomersulfonic acid	3832	4098.38	3832	4287.92	107	112	66-148	5	30
NEtFOSAA	1360	1536.53	1360	1470.31	113	108	55-169	4	30
NEtPFOSA	1360	1500.08	1360	< 4,500	110	0*	70-130	200*	30
NEtPFOSAE	1360	1774.37	1360	1774.99	130	131*	70-130	0	30
NMeFOSAA	1360	1533.14	1360	1269.87	113	93	44-147	19	30
NMePFOSA	1360	< 4,500	1360	< 4,500	0*	0*	70-130	0	30
NMePFOSAE	1360	1431.57	1360	1271.67	105	94	70-130	12	30
Perfluorobutanesulfonic acid	1204	1370.73	1204	1355.04	114	113	73-128	1	30
Perfluorobutanoic acid	1360	2793.07	1360	2482.96	205*	183*	74-142	12	30
Perfluorodecanesulfonic acid	1310	1464.94	1310	1584.46	112	121	60-135	8	30
Perfluorodecanoic acid	1360	1584.73	1360	1596.73	117	117	69-148	1	30
Perfluorododecanesulfonic acid	1316	1591.64	1316	1325.4	121	101	70-130	18	30
Perfluorododecanoic acid	1360	1522.3	1360	1466.36	112	108	75-136	4	30
Perfluoroheptanesulfonic acid	1294	1424.98	1294	1491.28	110	115	64-135	5	30
Perfluoroheptanoic acid	1360	1838.86	1360	1585.27	135	117	76-140	15	30
Perfluorohexadecanoic acid	1360	1625.96	1360	1734.28	120	128	21-151	6	30
Perfluorohexanesulfonic acid	1286	1332.36	1286	1379.36	104	107	71-131	3	30
Perfluorohexanoic acid	1360	1690.25	1360	1748.13	124	129	75-135	3	30
Perfluorononanesulfonic acid	1306	1555.94	1306	1490.93	119	114	66-133	4	30
Perfluorononanoic acid	1360	1615.99	1360	1647.5	119	121	72-148	2	30
Perfluorooctadecanoic acid	1360	1565.22	1360	1654.11	115	122	70-130	6	30
Perfluorooctanesulfonamide	1360	1322.97	1360	1498.2	97	110	65-164	12	30
Perfluorooctanesulfonic acid	1300	1427.45	1300	1292.11	110	99	67-138	10	30
Perfluorooctanoic acid	1360	1753.08	1360	1771.63	129	130	72-138	1	30
Perfluoropentanesulfonate	1276	1425.64	1276	1323.57	112	104	76-127	7	30
Perfluoropentanoic acid	1360	1530.02	1360	1566.84	113	115	74-134	2	30
Perfluorotetradecanoic acid	1360	1558.48	1360	1571.58	115	116	74-135	1	30
Perfluorotridecanoic acid	1360	1525.12	1360	1482.18	112	109	61-145	3	30
Perfluoroundecanoic acid	1360	1508.58	1360	1572.17	111	116	75-146	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Quality Control Summary

Client Name: Baum's Castorine Co. Inc.
Reported: 06/10/2019 14:14

Group Number: 2044938

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 32 PFAS in Product
Batch number: 19151013

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1062334	77	77	73	248*	229*	188*
Blank	90	86	87	97	91	84
LCS	95	93	91	108	96	99
LCSD	85	86	84	94	88	88
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1062334	161*	957*	82	77	67	74
Blank	91	94	89	85	86	93
LCS	95	98	96	98	106	99
LCSD	89	89	88	88	84	90
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1062334	84	231*	388*	334*	483*	645*
Blank	101	106	96	102	96	87
LCS	107	113	108	115	103	100
LCSD	91	122	102	113	102	90
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA	d7-NMePFOSAE	d3-NMePFOSA	d9-NEtPFOSAE	d5-NEtPFOSA
1062334	61	383*	337*	502*	630*
Blank	111	36	49	39	44
LCS	111	45	49	48	40
LCSD	103	51	56	51	52
Limits:	11-127	10-128	10-104	10-121	10-106

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 44390 Group # 2044938 Sample # 1062334

COC #583675

Client Information

Client: Baum's Castorine Co. Inc.
Acct. #: 44390
Project Name/#: Novacool UEF
PWSID #:
Project Manager: Paul Berger
P.O. #: ~~0~~ 010980
Sampler: Paul Berger
Quote #: 220819A
State where samples were collected: New York
For Compliance: Yes ☐ No ☑

For Lab Use Only
FSC:
SCR#: 243274

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	NPDES	Surface	Other: product sample	Total # of Containers	PFAS in Product									Remarks
Novacool UEF	5/17/19	3:30PM										X	1	32									

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: _____

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Edwin Hernandez	5/14/19	1520	Paul H. Berger	5/15/19	3:00PM
Paul H. Berger	5/20/19	3:00 PM			

EDD Required? Yes No
If yes, format: _____

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ✓ FedEx ____ Other ____

Temperature upon receipt 2.8 °C

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 249517

Group Number(s): 2044938

Client: Baum's Castorine Co. Inc.

Novacool UEF

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	05/21/2019 9:50
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Katie Hartlove (2114) at 12:27 on 05/21/2019

Samples Chilled Details: Novacool UEF

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.8	DT	Wet	N	Bagged	N

Container Quantity Discrepancy Details: Novacool UEF

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
Novacool UEF	2	1	

2425 New Holland Pike
Lancaster, PA 17605-2425

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F 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Environmental

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Baum's Castorine Co., Inc.
Manufacturing Chemists Since 1879

July 11, 2019

Extensive scientific research has shown that low levels of materials from the perfluorooctanyl chemistry are present in the environment, including living organisms, and they persist for long periods of time. PFOS (perfluorooctanyl sulfonate), together with surfactants that degrade to PFOA (Perfluorooctanoic acid), have been used to make aqueous film forming foam (AFFF).

Novacool UEF was developed as a Fluorine free universal extinguishing foam for use at 0.5%. It is a mixture of amphoteric, nonionic, and anionic surfactants containing no perfluoroalkyl functional groups. Testing by CH2M Hill show it to be readily degradable.

We have been asked to provide supporting evidence to our claim that Novacool UEF is formulated without the use of perfluoroalkyl surfactants. Novacool UEF Samples were submitted to Eurofins Lancaster Laboratories for testing by GCMS. No perfluoroalkyl compounds were detected at or above the lower detection limits of the test. For PFOS and PFOA the lower detection limits are 10,000 ng/l [0.01 ppm] and 5000 ng/l [0.005 ppm], respectively. Had these materials been used as performance ingredients in Novacool UEF, they would have been detected at many orders of magnitude higher than the limit.

Paul H. Berger

Paul H. Berger, President

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From: Russell, Chris <Russell.Chris@epa.gov> on behalf of Russell, Chris
Sent on: Thursday, August 22, 2019 7:42:37 PM
To: Swanson, Courtney <Swanson.Courtney@epa.gov>; tricia.kilgore@bjwsa.org
CC: Tanner, Terry <Tanner.Terry@epa.gov>
Subject: FW: Surface Water Samples
Attachments: Waste Pile Run off sample summary.pdf (49.6 KB)

Hello Tricia and Courtney:

Please find attached the sample SCDHEC took on August 2, 2019 in regards to run-off from the waste pile.

Courtney: I'm not sure if this meets the needs that you and Earl discussed, unfortunately I do not have his email address, so please ensure he receives it.

Please do not hesitate to contact me should you have any comments, questions, or concerns, pertaining to this email.

Respectfully,

Chris Russell
Federal On Scene Coordinator
US EPA Region 4: Florida Outpost
Cell: (850) 274-1575

From: Schrag, Jeffrey <SCHRAGJM@dhec.sc.gov>
Sent: Thursday, August 22, 2019 3:20 PM
To: Russell, Chris <Russell.Chris@epa.gov>
Cc: Porter, Henry <porterhj@dhec.sc.gov>; Stewart, R. Gary <stewarrg@dhec.sc.gov>
Subject: Re: Surface Water Samples

Chris,

Please find attached the lab report summary for the waste pile run-off sample collected on 8/2/2019.

Jeffrey Schrag
Waste Assessment Section Manager
Bureau of Land and Waste Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4326
Mobile: (803) 429-4102