Message

From: Dan Pope [DPope@css-inc.com]
Sent: 6/19/2020 8:46:20 PM
To: Davis, Eva [Davis.Eva@epa.gov]
Subject: RE: June 2020 BCT meeting materials

I was on the call.

I'm not sure from the presentation just how they're doing the biodegradation modeling. It seems to me that their model is focused on the source decay, and then that info can be plugged into numerous other models for biodegradation, ISCO, etc.

-----Original Message-----
From: Davis, Eva <Davis.Eva@epa.gov>
Sent: Friday, June 19, 2020 2:39 PM
To: Dan Pope <DPope@css-inc.com>
Cc: D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>
Subject: FW: June 2020 BCT meeting materials

Hey Dan

I was late getting on the Williams call yesterday, so didn't catch whether or not you were on the call? Any thoughts on this research Bo is doing? You must know more about biodegradation modeling than I do.

Eva

-----Original Message-----
From: Bo Stewart <Bo@praxis-enviro.com>
Sent: Friday, June 19, 2020 12:56 PM
To: Davis, Eva <Davis.Eva@epa.gov>; Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>
Cc: d p <DPope@css-dynamac.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; Panzino.Paula@azdeq.gov; Nicole Goers <Nicole.Goers@TechLawInc.com>
Subject: Re: June 2020 BCT meeting materials

Hi Eva,

The model does not consider the plume and looks at the mass discharges of contaminants and reaction products from the source area as a good metric that is available for many sites (e.g., a transect of monitoring wells just downgradient from the source). The model 'weeds' are in the remedial processes rather than water flow through a heterogeneous soil.
The May 2017 sulfate reduction memo for ST012 provides an example of the 'weeds'. Modeling based on numerical solutions of groundwater flow tend to oversimplify the remedial processes (e.g., NAPL equilibrium, first order decay constants).

The purpose of the modeling is to consider governing processes for remediation of a NAPL source zone that yield a more objective evaluation of different approaches and outcomes. Each technology starts with the same conceptual model and site assumptions/properties. Even though the forecasts may not be completely accurate, if the model governing processes are relatively complete then the relative comparison of approaches is valid and valuable. We are adding features to allow modeling to be site-specific and include important field processes (e.g., back diffusion, mixing). Hope this helps. We are working to get a first publication out that will describe the weeds in a lot more detail.

Have a great weekend,

Bo

On 6/19/2020 6:25 AM, Davis, Eva wrote:
> Hi Bo
>
> I've been trying to get a little more 'into the weeds' about this model being developed by this project. Some of the slides include discharge concentration - are you trying to estimate a mass discharge from the groundwater concentration data to predict the life of the plume? I feel like that is a wild guess, hope you can enlighten me.
>
> Thanks Eva
>
> -----Original Message-----
> From: Bo Stewart <Bo@praxis-enviro.com>

> Sent: Thursday, June 18, 2020 1:25 PM
> To: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; 'JERRARD,
> CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>;
> 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn
> <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C.
> <stuart.pearson@woodplc.com>; GANGNUSS, GREGORY G GS-14 USAF HAF
> AFCEC/CIBP <gregory.gangnuss@us.af.mil>
> Cc: d p <DPope@css-dynamac.com>; Davis, Eva <Davis.Eva@epa.gov>;
> 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; William Hughes
> <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>;
> 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>;
> Panzino.Paula@azdeq.gov; Nicole Goers <Nicole.Goers@TechLawInc.com>
> Subject: June 2020 BCT meeting materials
>
> Hi All,
>
> Please find slides attached for the first item on today's agenda. Yes, they are very busy and I will be brief today but I am available to discuss further.
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> Thanks,
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> Bo
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> On 6/17/2020 2:19 PM, Smallbeck, Donald R. wrote:
>> BCT members
>>
>> Please find attached the June 18, 2020 meeting agenda, 2020 BCT meeting schedule and BCT presentation. Additional meeting materials to follow.
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