Bratcher, Mike, EMNRD

From: Mark Weatherly <mweatherly@halconresources.com>
Sent: Wednesday, September 12, 2012 12:41 PM
To: Terry G. Gregston; Michael Burton
Cc: Bratcher, Mike, EMNRD
Subject: FW: Produced Water Release, Pipeline break - Southern Bay Operating
Attachments: Revised_C-141.doc

From: Mark Weatherly [mailto:markw@eca-mail.com]
Sent: Wednesday, September 12, 2012 12:08 PM
To: 'Gregston, Terry G'
Cc: Burton, Michael R; Mike Bratcher
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

Attached file as requested..

From: Gregston, Terry G [mailto:tgregsto@blm.gov]
Sent: Tuesday, September 11, 2012 5:57 PM
To: Mark Weatherly
Cc: Burton, Michael R
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

As big of a pain as it is to do so, yes, please submit revised C141. That way your signature accompanies the changes in the reported volumes.

Terry Gregston
Environmental Protection Specialist
Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220
Office (575) 234-5958
Cell (575) 361-2635
Fax (575) 234-5927

From: Mark Weatherly [mailto:mweatherly@halconresources.com]
Sent: Tuesday, September 11, 2012 3:24 PM
To: Gregston, Terry G
Cc: Burton, Michael R
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

Ms Gregston,

YES, wildly busy on this end, also!

Starting on 09/05, have been dealing with a small [15 bbl] crude spill from a nearly new production facility within Southern Bay's Eagle Ford area in Fayette County, TX,.. Have all spill picked-up, nearly 50% recovery.. Awaiting RRC-TX notice regarding sampling procedure as to sensitive area criteria..

If the spill volume of 488 bbl is satisfactory on the BLM side, we can call that amount as "official".. Is submission of a revised C-141 form needed?

Thank you,

Mark Weatherly

From: Gregston, Terry G [mailto:tgregsto@blm.gov]
Sent: Thursday, September 06, 2012 11:46 AM
To: Mark Weatherly
Cc: Burton, Michael R
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

Mr. Weatherly,

My apologies for the delay in response to your email. Have been rather crazy busy.

I have no problems with splitting the difference on the spill amounts—due to the range of soil types within the spill area, this would actually be a good course of action to take—as long as the operator agrees that it is a reasonable estimate of the release volume for public record. We attempt to be as accurate as possible, but when that isn't possible we must sometimes make our best estimate.

My past experience with Southern Bay has indeed witnessed a diligent effort to address spills and to remediate the surface affects. The BLM and all the authorized officers at the BLM, appreciate such cooperative working partnerships. As always, it is a pleasure doing business with you even when that business is an event that neither one of us wishes to see.

Thank you for your help and assistance on these concerns,

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From: Mark Weatherly [mailto:mweatherly@halconresources.com]
Sent: Thursday, August 30, 2012 11:25 AM

To: Gregston, Terry G
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

Ms Gregston,

Thank you for this response.. Am sure after your personal experience with Southern Bay Operating on the May 2010 pipeline release that you and other folks at Carlsbad understand a diligent effort will be made to address this spill and remediate the surface effect.. Believe I comprehend all your info, no doubt there has been some poor operational past practices in the area – here are my reply points:

1. This release occurred at a point downstream from 2 Injection wells, Beeson #'s 8 & 9 [11 total active inj wells in sys]..
2. All injection wells have back-pressure valves at the wellhead
3. With your estimated high / low release volumes, can we just split the difference?

Have talked to Tom Womelsdorf, and he indicated more contaminated soil is present below the fiberglass line..

Please let me know your thought on #3 above..

Mark Weatherly
Environmental Coordinator
Southern Bay Operating, LLC
281.537-9920, x120 - Office

From: Gregston, Terry G [mailto:tgregsto@blm.gov]
Sent: Wednesday, August 29, 2012 7:12 PM
To: Mark Weatherly
Cc: Burton, Michael R
Subject: RE: Produced Water Release, Pipeline break - Southern Bay Operating

Mr. Weatherly,

In my humble experience, no two spills are ever alike. I spoke with both the Petroleum Engineer and a Petroleum Engineering Technician on staff about your question and their answer was as follows:

Take the average flow of water in the injection line over a week's time. Figure out the flow rate per hour. Then take the Time (from the point of release to the point of full line shut in) and multiply this by the average volume going to the injection well per hour. If you don't know the exact time, you will have to make your best guess. They asked if you had a check valve on the injection well; if not, you probably had flowback from the injection well due to the loss of line pressure going to the well (which would increase the volume released...They also stated that if you don't have a check valve on the wellhead of the injection well, that you should install one to prevent that flowback from occurring in the event of another line release.) Since produced water is typically pushed under pressure through the injection to the injection well under pressure, any line break of a pressurized line will result in a greater than "normal flow volume" release. Their best estimate under such a circumstance would be to add an additional 50% to the normal volume per hour flow rate.

I took the width, length and depth of the spill reported and ran it through the spill calculator (you gave me exactly the information that I needed to do so, thank you!). The spill calculator estimates 410 bbls for that volume of soil if it is fine sand; 641 bbls if it is medium sand; 667 bbls if it is coarse sand; and 308 bbls if it is sandy clay. Around the Loco Hills area, you typically have course sand on top, then medium to fine sand, then sandy clay at depth. So you probably have a spill between 308 bbls (best case) to 667 bbls (worst case).

It should also be understood that spills of produced water are not penalized for royalties or lost minerals. It makes little difference when it comes to produced water whether the operator reports a 35 bbl spill or a 350 bbl spill. The "penalty" for a 350 bbl produced water spill is the same as 35 bbl produced water spill: you have to report the volume lost/recovered and clean it up.

However, it helps if the operator is as accurate as possible so that we can track those quantities lost and how those quantities are related to "X" amount of surface/resource damage. Historically, operators in southeastern New Mexico have habitually underestimated the size of their spills. In many cases, much larger spills have been reported as less than 5 or 10 bbls. This particular under reporting habit is now coming back to haunt the operators because the BLM is now looking at lowering the reportable spill volume to a lesser amount simply because so much surface damage can be created by a "5 bbl spill". So accuracy is important. It's also important to you as an operator as well. The greater the accuracy in your costs, losses, mitigation expenses, and liabilities, the more effective you are at making good operations decisions. That, in a nutshell, is one reason that the BLM tracks amounts lost in undesirable events and the surface damages that result—so that we can make better operations and land management decisions.

In this particular case, you might not be able to get a 100% accurate spill estimate. However, there are a couple of tools that you can use that will help you to make a "reasonable estimate" based upon factual data and circumstances rather than just a wild guess.

If I can confuse you further on this subject, let me know...but I hope some of this helps. Call me if you have any questions. I might not know the answers, but I might know who does...

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