

**STATE OF
COLORADO**

Andrews - DNR, Doug <doug.andrews@state.co.us>

Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #4004761226 messages

Andrews - DNR, Doug <doug.andrews@state.co.us>

Thu, Sep 26, 2013 at 4:17 PM

To: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Lauren,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have a few comments.

1) In the Cultural Distance Information section of the Form 2A you have indicated the distance to the nearest Building Unit is 3000 feet and the nearest Building is 3,103 feet. Because Building Units are a specific type of Building as defined in our Rules, a Building Unit will never be closer to an oil and gas location than a Building. This is explained in the Instructions that appear to the right of the Cultural Distance Information on the Form 2A. Therefore I will change the distance for both the Building and Building Unit to 3000 feet on the Form 2A.

2) In the Water Resources section of the Form 2A you have given the basis for determining the depth to groundwater as the base of the Fox Hills Aquifer and have listed an estimated depth to groundwater of 1,111 feet. The purpose in providing an estimated depth to groundwater is to determine if shallow groundwater is present in the area of the oil and gas location. Should a spill or release of fluids occur at this location it is helpful to know if shallow groundwater is present which could be impacted. It is very unlikely that a surface release or spill at this location will impact the Fox Hills Aquifer located a thousand feet deep. Your basis should be how you determined how shallow groundwater is at the oil and gas location. During my review, I identified a water well (Permit #237186) located approximately 3,070 feet north of the oil and gas location. A review of this well's permit indicates the depth to groundwater is approximately 80 feet. This water well is at an elevation approximately 20 feet lower than the oil and gas location, so the estimated depth to groundwater at the oil and gas location is approximately 100 feet. I will change the estimated depth to groundwater on the Form 2A from 1,111 feet to 100 feet and modify the statement concerning the basis for depth to groundwater to what I have used above.

3) In the Facilities section of the Form 2A you have indicated that two Temporary Large Volume Above Ground Storage Tanks will be used at the oil and gas location. Please provide me with additional information concerning these tanks. By that I mean are they being purchased, constructed, and operated by Kerr-McGee for their sole use on this oil and gas location? If not, then by whom.

If you have any questions, please feel free to contact me. Thank you.

—

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area
Colorado Oil & Gas Conservation Commission
1120 Lincoln St., Suite 801
Denver, CO 80203

doug.andrews@state.co.us
303-894-2100 Ext. 5180

Kucera, Lauren <Lauren.Kucera@anadarko.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Thu, Sep 26, 2013 at 4:47 PM

Hi Doug,

- 1.) That makes sense. I should have caught that.
- 2.) Thank you for clarifying. We will determine the depth to groundwater using your reasoning below from now on.
- 3.)

Thank you,

Lauren Kucera
Regulatory Affairs – Rockies GWA
Anadarko Petroleum Corporation
(720) 929-6107 - Direct

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]
Sent: Thursday, September 26, 2013 4:18 PM
To: Kucera, Lauren
Subject: Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #400476122

[Quoted text hidden]

[Click here for Anadarko's Electronic Mail Disclaimer](#)

Kucera, Lauren <Lauren.Kucera@anadarko.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Thu, Sep 26, 2013 at 4:47 PM

Doug,

I accidentally hit send too early. My apologies!! Please disregard this message.

Thank you,

Lauren Kucera

From: Kucera, Lauren

Sent: Thursday, September 26, 2013 4:47 PM

To: 'Andrews - DNR, Doug'

Subject: RE: Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #400476122

Hi Doug,

1.) That makes sense. I should have caught that.

2.) Thank you for clarifying. We will determine the depth to groundwater using your reasoning below from now on.

3.)

Thank you,

Lauren Kucera

Regulatory Affairs – Rockies GWA

Anadarko Petroleum Corporation

(720) 929-6107 - Direct

From: Andrews - DNR, Doug [<mailto:doug.andrews@state.co.us>]

Sent: Thursday, September 26, 2013 4:18 PM

To: Kucera, Lauren

Subject: Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #400476122

Lauren,

[Quoted text hidden]

[Click here for Anadarko's Electronic Mail Disclaimer](#)

Kucera, Lauren <Lauren.Kucera@anadarko.com>

Fri, Sep 27, 2013 at 8:00 AM

To: "doug.andrews@state.co.us" <doug.andrews@state.co.us>

Good morning Doug,

- 1.) That makes sense. I should have caught that.
- 2.) Thank you for clarifying. We will determine the depth to groundwater using your reasoning below from now on. We misinterpreted the intent of the question.
- 3.) The tanks are temporarily set for the drilling fluids for drilling surface only. They are rented skidded frac tanks from contractors. Do you need any more information about the tanks?

Thank you,

Lauren Kucera

Regulatory Affairs – Rockies GWA

Anadarko Petroleum Corporation

(720) 929-6107 - Direct

From: Andrews - DNR, Doug [<mailto:doug.andrews@state.co.us>]

Sent: Thursday, September 26, 2013 4:18 PM

To: Kucera, Lauren

Subject: Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #400476122

Lauren,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have a few comments.

1) In the Cultural Distance Information section of the Form 2A you have indicated the distance to the nearest Building Unit is 3000 feet and the nearest Building is 3,103 feet. Because Building Units are a specific type of Building as defined in our Rules, a Building Unit will never be closer to an oil and gas location than a Building. This is explained in the Instructions that appear to the right of the Cultural Distance Information on the Form 2A. Therefore I will change the distance for both the Building and Building Unit to 3000 feet on the Form 2A.

2) In the Water Resources section of the Form 2A you have given the basis for determining the depth to groundwater as the base of the Fox Hills Aquifer and have listed an estimated depth to groundwater of 1,111 feet. The purpose in providing an estimated depth to groundwater is to determine if shallow groundwater is present in the area of the oil and gas location. Should a spill or release of fluids occur at this location it is helpful to know if shallow groundwater is present

which could be impacted. It is very unlikely that a surface release or spill at this location will impact the Fox Hills Aquifer located a thousand feet deep. Your basis should be how you determined how shallow groundwater is at the oil and gas location. During my review, I identified a water well (Permit #237186) located approximately 3,070 feet north of the oil and gas location. A review of this well's permit indicates the depth to groundwater is approximately 80 feet. This water well is at an elevation approximately 20 feet lower than the oil and gas location, so the estimated depth to groundwater at the oil and gas location is approximately 100 feet. I will change the estimated depth to groundwater on the Form 2A from 1,111 feet to 100 feet and modify the statement concerning the basis for depth to groundwater to what I have used above.

3) In the Facilities section of the Form 2A you have indicated that two Temporary Large Volume Above Ground Storage Tanks will be used at the oil and gas location. Please provide me with additional information concerning these tanks. By that I mean are they being purchased, constructed, and operated by Kerr-McGee for their sole use on this oil and gas location? If not, then by whom.

If you have any questions, please feel free to contact me. Thank you.

--

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area

Colorado Oil & Gas Conservation Commission

1120 Lincoln St., Suite 801

Denver, CO 80203

doug.andrews@state.co.us

303-894-2100 Ext. 5180

[Click here for Anadarko's Electronic Mail Disclaimer](#)

Andrews - DNR, Doug <doug.andrews@state.co.us>
To: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Fri, Sep 27, 2013 at 9:37 AM

Lauren,

Thanks for speaking with me this morning. Based on our conversation, Kerr-McGee will not be using Temporary Large Volume Above Ground Tanks at this oil and gas location. This part of the Facilities section of the Form 2A is for documenting when an operator is planning on using tanks that are extremely large. Like 20,000 barrels or more and have a liner placed in them. A Poseidon tank is an example of what we are thinking with this item. If an operator is planning to use the smaller skid mounted frack tanks that are typically 500 barrels in size, they should list them in the Other Facilities section of the Form 2A. With your permission, I will change the Form 2A to remove the listing of two Temporary Large Volume Above Ground Tanks and add two 500 barrel skid mounted frack tanks to the Other Facilities section of the 2A. If you like to modify and/or improve upon this description, please let me know and I will make it for you.

[Quoted text hidden]

Kucera, Lauren <Lauren.Kucera@anadarko.com>

Fri, Sep 27, 2013 at 11:03 AM

To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Hi Doug,

Thank you for clarifying the intent of the "Temporary Large Volume Above Ground Tanks." We will indicate our 500 bbl tanks in the "Other Facilities" section of the 2A from now on.

I agree with your proposed change to the Badding 35N-2HZ 2A mentioned below.

Thank you,

Lauren Kucera

Regulatory Affairs – Rockies GWA

Anadarko Petroleum Corporation

(720) 929-6107 - Direct

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]

Sent: Friday, September 27, 2013 9:38 AM

To: Kucera, Lauren

Subject: Re: FW: Form 2A review for Kerr-McGee's BADDING 35N-2HZ location - Doc #400476122

[Quoted text hidden]