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COLORADO

EnviroScan - DNR, OGCC <dnr_ogcc.enviroscan@state.co.us>

Fwd: eForm 4 (400745034) - K28NW (335428) Cuttings Disposal

1 message

Lujan - DNR, Carlos <carlos.lujan@state.co.us>
To: "EnviroScan, OGCC" <dnr_ogcc.enviroscan@state.co.us>

Tue, Dec 9, 2014 at 11:09 AM
Location ID 335428
Document 2313349

Darla,

Please upload this email and the attached documents to Location ID #335428.

Thanks,
Carlos

Carlos Lujan, Ph.D.
Environmental Protection Specialist
Northwest Region

P 970.625.2497 x7 | F [970.625.2497](tel:970.625.2497) | C [970.286.3292](tel:970.286.3292)
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----- Forwarded message -----

From: **Hines, Christopher C.** <Christopher.Hines@encana.com>
Date: Tue, Dec 9, 2014 at 8:31 AM
Subject: RE: eForm 4 (400745034) - K28NW (335428) Cuttings Disposal
To: "Lujan - DNR, Carlos" <carlos.lujan@state.co.us>
Cc: "Kruckenberg, Lindsey M." <Lindsey.Kruckenberg@encana.com>, "Middleton, Brett A." <Brett.Middleton@encana.com>

Hello Carlos:

As we discussed, please see below for formal answers to the questions you had.

Please let me know if you have any additional questions.

Regards,

Chris Hines

Environmental Specialist (Piceance)

t 970.285.2653

c 970.261.1127

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From: Lujan - DNR, Carlos [<mailto:carlos.lujan@state.co.us>]
Sent: Monday, December 08, 2014 2:51 PM
To: Hines, Christopher C.
Cc: Kruckenberg, Lindsey M.; Middleton, Brett A.
Subject: Re: eForm 4 (400745034) - K28NW (335428) Cuttings Disposal

Chris,

Before I approve the e-form04, doc #400745034 for the K28NW (335428) cuttings disposal, I need additional information. I also have few comments:

1) There is a contradiction between the 2A (doc #400083575) approved by COGCC on 11/24/2010 and the text submitted by Encana with e-form 04, doc #400745034. The Form 2A states repeatedly and clearly that the location is in a sensitive area because of distance to water well(s) and depth to groundwater. Encana's Form 04 states that "the location is not within a sensitive area". Please clarify.

a. I'm not sure if we're looking at 2 different documents, but the 2A (40083575) I looked at had the site listed as lying within a sensitive area for wildlife habitat but not for water resources. For purposes of onsite E&P waste disposal, I do not typically consider wildlife habitat as part of the sensitive area determination. All material is buried below the agronomic zone.

b. Based on distance to surface water, ground water, or water wells I do not believe this site lies within a sensitive water resources area.

2) Furthermore the same paragraph states that "according to the soil survey in this area, there is no zone of water saturation within 80 inches of the surface". Should it say 80 feet?

a. That is legacy language that was included to address specific concerns that Linda Spry O'Rourke had raised relative to burying material on location. It is supposed to say "inches", though feet would be just as applicable on most sites. I'm inclined to remove it entirely from future submittals.

3) Can you describe the vault that was used to store (bury) 8,300 cu yards of cuttings during the last three

or more years? Would you please submit a sketch with dimensions and a short description of its construction? Is it a structure or just an excavation? Is it a (drilling) pit? Is it lined or somehow protecting the sub-soil from contamination? Was there an E&P waste management plan submitted?

- a. The cuttings were stored in 2 separate surface stockpiles on the location until the vault was constructed this year in support of interim reclamation efforts. The vault is an excavation at the foot of the cut slope. To provide vault dimensions, I've attached a copy of the submitted "Drill Cuttings Disposal Form" completed by the earthwork contractor for the cuttings disposal carried out during the interim reclaim.
- b. The vault is not a drilling pit, and is not lined. Based on the high clay and salt content of the cuttings, I think it is unlikely that volumes of the identified constituents of concern adequate to pose any risk to the environment will mobilize.
- c. No E&P waste management plan was submitted.

4) - SAR values, pH are not a concern since cuttings have been buried under approximately 5' of clean native soil. - Arsenic is not a concern either, because arsenic concentrations are within background values in the area.

- Hydrocarbons may be a concern. The original composite sample from June 2011 had a TPH concentration of about 410 mg/kg. Although this value is below Table 910-1 max concentration (500 mg/kg), there is little (or no) information regarding the sampling event. The only thing we know is that in June, 2011 Encana collected one (1) composite sample of both stockpiles. Would you please elaborate on the sampling protocol? a) Were the cuttings from the pay zone segregated or mixed thoroughly with the rest of the cuttings, and with saw dust? b) How many points for the composite sample? At what depth? etc.

a. As we discussed, the 2011 sample is a 5-point composite of both stockpiles. If this was the only sample collected of the stockpiles, I agree that the potential for higher TPH concentrations in "hot spots" could exist. To confirm the initial sample results, a 2014 sampling effort, including 3 5-point composite samples from each stockpile (6 samples total) was undertaken. That sampling event confirmed the results from the 2011 samples.

a. The stockpiles are heavily blended during the stabilization and stockpiling process. Three (3) representative 5-point composites are collected, with each sampling point collected at a minimum depth of 6 inches. These samples are then compared to the other representative samples from each stockpile to look for variability and the potential for "hot-spots".

5) Form 04 was submitted to document onsite cuttings disposal, which suggests that cuttings are been left in place, buried in the vault. Is that correct?

a. All cuttings originating from the wells on this location will be permanently disposed of in the cut slope.

ADDITIONAL QUESTION REGARDING PAD USE:

6) COGCC approved e-form 04, doc #400463688 on 08/4/2014: "*Encana Oil & Gas (USA) Inc. requests to leave the K28NW Pad open. Landowner has agreed to allow Encana to leave pad open. Encana continues*

to evaluate drilling program on this pad." Please indicate if Encana is planning on drilling additional wells within the next 12 months from the date of the approval. Please read Rules 1003 b. concerning Interim reclamation of areas no longer in use.

- a. The pad has been interim reclaimed, and Encana has no plans to reoccupy the location at this time.

Call/email me with questions,

Thanks

Carlos

Carlos Lujan, Ph.D.

Environmental Protection Specialist

Northwest Region

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On Wed, Dec 3, 2014 at 5:16 PM, Hines, Christopher C. <Chris.Hines@encana.com> wrote:

Hello Carlos:

Attached is an eForm submitted to document onsite disposal of drill cuttings at an Encana location in the Mamm Creek area of operations.

Happy Holidays!

Chris Hines

Environmental Specialist (Piceance)

t 970.285.2653

c 970.261.1127

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2 attachments



K-28 cuttings vault.pdf
266K



eForm 4 (400745034) - K28NW (335428) Cuttings Disposal.pdf
923K

