



**Subject:** RE: Mid-Con Energy: HRMU # 11 (API: 05-017-07793)

Hi Bob,

I just wanted to follow-up on this injection permit. Do you know the status?

Thanks,

Ellen

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**From:** Ellen McElrath  
**Sent:** Thursday, October 23, 2014 2:26 PM  
**To:** 'Bob Koehler - DNR'  
**Subject:** RE: Mid-Con Energy: HRMU # 11 (API: 05-017-07793)

Bob,

The HRMU #11 was MIT'd yesterday and passed. I am told the paperwork will be filed today – do you need anything else from me in order to approve the permit?

Thanks,

Ellen

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**From:** Bob Koehler - DNR [mailto:bob.koehler@state.co.us]  
**Sent:** Tuesday, October 07, 2014 10:20 AM  
**To:** Ellen McElrath  
**Subject:** RE: Mid-Con Energy: HRMU # 11 (API: 05-017-07793)

Shouldn't take more than a couple of days. Depending on my level of panic when it comes in it may be done in minutes (for low panic intervals, fewer and shorter all the time).

Sincerely,

Robert P. (Bob) Koehler, PhD

Underground Injection Control Lead, Geology Advisor



**COLORADO**  
Oil & Gas Conservation  
Commission  
Department of Natural Resources

P 303.894.2100 x5147 | F 303.894.2109

1120 Lincoln Street, Suite 801, Denver, CO 80203

bob.koehler@state.co.us | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

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**From:** Ellen McElrath [mailto:emcelrath@midcon-energy.com]  
**Sent:** Tuesday, October 07, 2014 8:15 AM  
**To:** bob.koehler@state.co.us  
**Subject:** FW: Mid-Con Energy: HRMU #11 (API: 05-017-07793)

Bob,

The Form 5 and 5A have both been filed for the HRMU #11. A form 42 was filed and we should be conducting an MIT soon.

Can you give me any guidance on what the timing will be for approving the permit after the MIT is passed?

Thanks,

Ellen

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**From:** Bob Koehler - DNR [mailto:bob.koehler@state.co.us]  
**Sent:** Wednesday, August 06, 2014 11:07 AM  
**To:** Ellen McElrath  
**Subject:** RE: Mid-Con Energy: HRMU #11 (API: 05-017-07793)

OK Ellen, good luck on the drilling.

Sincerely,

Robert P. (Bob) Koehler, PhD

Underground Injection Control Lead, Geology Advisor



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**From:** Ellen McElrath [mailto:emcelrath@midcon-energy.com]  
**Sent:** Wednesday, August 06, 2014 9:59 AM  
**To:** Bob Koehler - DNR  
**Subject:** RE: Mid-Con Energy: HRMU #11 (API: 05-017-07793)

Thanks for the update Bob. We plan to start drilling the HRMU #11 this weekend.

Ellen

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**From:** Bob Koehler - DNR [mailto:bob.koehler@state.co.us]  
**Sent:** Tuesday, August 05, 2014 6:03 PM  
**To:** Ellen McElrath  
**Subject:** Mid-Con Energy: HRMU #11 (API: 05-017-07793)

Hi Ellen,

Just a few comments about your Form 33-Injection Well Permit Application for the Mid-Con Energy: HRMU #11 well.

Before I will approve the permit Mid-Con will need to have submitted a Form 5-Drilling Completion Report and Form 5A-Completed Interval Report. And, the well will have to have passed an MIT with the well set up for injection. Please remember that all MITs for UIC wells, Disposal or EOR, must be witnessed by the COGCC. Again, please remember to file a Form 42 for the MIT at least 10 days ahead of the actual operation, that gets the operation on our field inspector's radar.

I calculated the maximum surface injection pressure:

$$(0.6 \text{ psi/ft} - 0.433 \text{ psi/ft}) \times 5285 \text{ ft} = 883 \text{ psi}$$

0.6 psi/ft = frac gradient we grant without any other info

0.433 psi/ft = water density per foot

5285 ft = depth of top perf

If you want a higher injection pressure you will have to perform a step rate test or transient pressure test. If you choose one of these you are required to file a Sundry Notice to ask permission.

Please feel free to contact me if you have any questions. Has Mid-Con started drilling yet?

Cheers,

Robert P. (Bob) Koehler, PhD

Underground Injection Control Lead, Geology Advisor



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**Ellen McElrath** <emcelrath@midcon-energy.com>

Fri, Nov 7, 2014 at 10:11 AM

To: Bob Koehler - DNR <bob.koehler@state.co.us>

Cc: Larry Coler - DNR <larry.coler@state.co.us>, Dirk Sutphin - DNR <dirk.sutphin@state.co.us>

Bob,

Form 5 TOC:

TOC @ 1,400'

Form 5 Production String Cement:

Lead 1 – 100 SKS

Tail 1 – 150 SKS

DV Opened

Lead 2 – 100 SKS

Tail 2 - 50 SKS

Please let me know what additional information is needed.

Thanks,

Ellen

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**From:** Bob Koehler - DNR [mailto:bob.koehler@state.co.us]

**Sent:** Wednesday, November 05, 2014 12:50 PM

**To:** Ellen McElrath

**Cc:** Larry Coler - DNR; Dirk Sutphin - DNR

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**Ellen McElrath** <emcelrath@midcon-energy.com>

Thu, Nov 13, 2014 at 12:25 PM

To: Bob Koehler - DNR <bob.koehler@state.co.us>

Cc: Larry Coler - DNR <larry.coler@state.co.us>, Dirk Sutphin - DNR <dirk.sutphin@state.co.us>

Bob,

I just wanted to follow-up to check to see if you and/or Larry need any additional information to move forward with approving this permit.

Please let me know.

Thanks,

Ellen

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**From:** Ellen McElrath

**Sent:** Friday, November 07, 2014 11:11 AM

**To:** 'Bob Koehler - DNR'

**Cc:** Larry Coler - DNR; Dirk Sutphin - DNR

**Subject:** RE: Mid-Con Energy: HRMU # 11 (API: 05-017-07793)

Bob,

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**From:** Bob Koehler - DNR [mailto:bob.koehler@state.co.us]

**Sent:** Wednesday, November 05, 2014 12:50 PM

**To:** Ellen McElrath

**Cc:** Larry Coler - DNR; Dirk Sutphin - DNR

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**Coler - DNR, Larry** <larry.coler@state.co.us>  
To: Ellen McElrath <emcelrath@midcon-energy.com>

Fri, Nov 14, 2014 at 8:55 AM

Still looks like we need the LAS digital log/logs for the induction density/neutron.

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Larry Coler

Permit/Completion Tech