**From:** Steven Arauza - DNR
**To:** "Ed Ingve"
**Subject:** RE: Bird State Remediation Project (#9615) additional sampling requirement
**Date:** Wednesday, April 5, 2017 11:07:00 AM

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Good morning, Ed.

Thank you for providing the analytical results for the samples that were collected on 3/10/2017. As you know, DRO concentrations for the North, West, and South samples exceed the Table 910-1 maximum allowable concentration standard of 500 mg/kg. Additional scraping and removal of contaminated soil is required, as you mentioned in your last email.

Please submit a site map or aerial photograph that illustrates the locations of each sample by 4/14/2017 and let me know when you plan to continue scraping. Weather-permitting, the work should be completed by the end of the month. After additional material is removed, confirmation samples will be required to verify compliance with Table 910-1 standards for TPH in soil.

Thanks again,

**Steven J. Arauza, P.G.**
**Environmental Protection Specialist**

COLORADO
Oil & Gas Conservation Commission
Department of Natural Resources

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1120 Lincoln Street, Suite 801, Denver, CO 80203
Steven.Arauza@state.co.us | www.colorado.gov/cogcc

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**From:** Ed Ingve [mailto:ed@renegadeoilandgas.com]
**Sent:** Wednesday, April 5, 2017 7:43 AM
**To:** 'Steven Arauza - DNR' <steven.arauza@state.co.us>
**Subject:** RE: Bird State Remediation Project (#9615) additional sampling requirement

Steven,

Please find attached the DRO test results for the sample grid taken in attempt to close this remediation project out. Unfortunately the sampling results are not what I was hoping for. Additional scraping and removal of contaminated soil will take place when things dry out and work can be scheduled. If you would like to see a different plan please let me know.

Thanks, Ed

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**From:** Ed Ingve [mailto:ed@renegadeoilandgas.com]
**Sent:** Friday, March 17, 2017 12:34 PM
**To:** 'Steven Arauza - DNR'
**Cc:** 'jbcrog@aol.com'

**Subject:** RE: Bird State Remediation Project (#9615) additional sampling requirement

Steve,

Please find attached two pictures of the resampling locations at the Bird State pit for DRO compliance. Five samples were taken at 12 yards (east sample taken at 15 yards) from the original contaminated sample location. Samples were taken at between 3 and 9 inches below surface. This should give us an idea of how localized the problem with the original sample was. A cleanup strategy will be developed after results are obtained.

I should receive results back next week and will forward them to you after I receive them. At that point I will consult with you as how to proceed.

Thanks, Ed

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**From:** Steven Arauza - DNR [mailto:steven.arauza@state.co.us]
**Sent:** Thursday, March 09, 2017 2:40 PM
**To:** Ed Ingve
**Subject:** RE: Bird State Remediation Project (#9615) additional sampling requirement

Sorry for the delayed response. I've been in the field for the past two days.

Thank you for the update, Ed. I'll be sure to add this information to the project file and am looking forward to seeing the more complete document.

-Steve

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**From:** Ed Ingve [mailto:ed@renegadeoilandgas.com]
**Sent:** Wednesday, March 08, 2017 10:59 AM
**To:** 'Steven Arauza - DNR'
**Cc:** 'JB Condill'
**Subject:** RE: Bird State Remediation Project (#9615) additional sampling requirement

Hey Steven,

Sorry about that. Just made it to location myself for the first time since we spoke. Discussed with my roustabout foreman a sampling program whereas Renegade proposes to take an additional 5 or 6 samples over the reclaimed area in an effort to determine if the DRO issue was wide spread or localized to the area where the 12/29/2016 sample was taken. Unfortunately the employee who collected the 12/29/2016 sample was not present and I could not identify the spot sampled.

We just received the sampling jars yesterday and I thought I could get the process moving. Now that will take place tomorrow. I was hoping to provide you with pictures and a diagram as to where the new samples were obtained. The lab has indicated that the analysis should take about a week once submitted.

I've also attached a copy of the seeding invoice reflecting past work. This is one of the reasons why I

was onsite yesterday as I met with Steve Freese of the State Land Board regarding reclamation issues involving the site. He is requiring additional information regarding the reseeding. I thought you may have wanted to know about that also.

Hoping to have a more complete document for you by the end of the week.

Ed

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**From:** Steven Arauza - DNR [mailto:steven.arauza@state.co.us]
**Sent:** Tuesday, March 07, 2017 11:30 AM
**To:** Ed Ingve
**Subject:** Bird State Remediation Project (#9615) additional sampling requirement

Hi Ed,

I was under the impression that you'd send an email follow-up to our discussion of additional sampling of the scraped location on 2/28. Could you send me a description of the additional sampling that you had in mind along with a diagram of proposed sampling locations?

**Steven J. Arauza, P.G.**
**Environmental Protection Specialist I**

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