

From: [Ed Ingve](#)
To: "Steven Arauza - DNR"
Subject: RE: Bird State Remediation Project (#9615) additional sampling requirement
Date: Tuesday, June 20, 2017 3:28:13 PM
Attachments: [Fwd SGS Accutest e-Hardcopy 2.0 Report D94194 Bird State 32-1 Pit samp... \(671 KB\).msg](#)

Steven,

It finally appears that we have established the margin of the diesel spill plume. Took a while but even the deep sample under the worst spot slid under the maximum.

Renegade proposes to scrape, remove and dispose the noncompliant soil and resample a couple locations to confirm the plume area is below any threshold. I propose going half the distant between any noncompliant sample and a good sample for removal. Once confirmed with compliant samples the whole area will be stabilized and reseeded. If you have any different thoughts or a specific sampling program in mind please feel free to interject your thoughts. Maybe this time this can be finally put to bed.

Thanks for your patience, Ed.

From: Steven Arauza - DNR [mailto:Steven.Arauza@state.co.us]
Sent: Thursday, June 01, 2017 1:36 PM
To: Ed Ingve
Cc: JB Condill
Subject: RE: Bird State Remediation Project (#9615) additional sampling requirement

Good afternoon, Ed and JB.

Thank you for the update. This message is to confirm that your information has been received by the COGCC. I will review the information and get back in touch with you if I need any additional info.

Thank you,

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



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

From: Ed Ingve [mailto:ed@renegadeoilandgas.com]
Sent: Thursday, June 1, 2017 11:36 AM
To: 'Steven Arauza - DNR' <Steven.Arauza@state.co.us>
Cc: 'JB Condill' <jbcrog@aol.com>

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

Steven,

Been a little busy lately but here is an update on our Bird State Remediation Project since we last spoke on the phone:

New soil samples have been collected to help delineate the DRO plume affiliated with the Bird State Pit reclamation at your suggestion. Five new samples were collected on 5/24/2017 and submitted to SGS Accutest for analysis. Samples sites were selected as further step outs from locations which have already failed. One sample (#4D) was taken from the same location as a previous sample but was obtained at a depth of two feet. All other samples were obtained from the same approximate depth of 6 to 12 inches as the previous samples. A Google Earth plat of the sample locations has been attached.

The GPS and the DRO found with each sample can be found below:

| | | | |
|-----------------|------------|--------------|----------|
| Original Sample | 39.34.4104 | -104.34.0816 | DRO 967 |
| Sample #1 | 39.34.4068 | -104.34.0816 | DRO 631 |
| Sample #2 | 39.34.4104 | -104.34.0858 | DRO 895 |
| Sample #3 | 39.34.4104 | -104.34.0762 | DRO 33.6 |
| Sample #4 | 39.34.4146 | -104.34.0816 | DRO 2330 |
| Sample #4D | 39.34.4146 | -104.34.0816 | pending |
| Sample #5 | 39.34.4128 | -104.34.0786 | DRO 37.8 |
| Sample #6 | 39.34.4170 | -104.34.0818 | pending |
| Sample #7 | 39.34.4051 | -104.34.0818 | pending |
| Sample #8 | 39.34.4102 | -104.34.0883 | pending |
| Sample #9 | 39.34.4140 | -104.34.0868 | pending |

I will forward results once obtained. At that point hopefully final delineation of the DRO plume will be defined and final scraping can take place.

Thanks, Ed

From: Steven Arauza - DNR [<mailto:Steven.Arauza@state.co.us>]
Sent: Wednesday, April 05, 2017 11:07 AM
To: Ed Ingve
Subject: RE: Bird State Remediation Project (#9615) additional sampling requirement

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



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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

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

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

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

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



COLORADO
Oil & Gas Conservation
Commission

Department of Natural Resources

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From: [JB Condill](mailto:JB_Condill)
To: ed@renegadeoilandgas.com
Subject: Fwd: SGS Accutest e-Hardcopy 2.0 Report D94194: Bird State 32-1 Pit, sampled on 05/24/2017
Date: Tuesday, June 13, 2017 6:38:43 AM
Attachments: [D94194.PDF](#)

-----Original Message-----

From: SGS Accutest LabLink Mountain States <lablink@accutest.com>
To: jbcrog <jbcrog@aol.com>
Sent: Mon, Jun 12, 2017 4:56 pm
Subject: SGS Accutest e-Hardcopy 2.0 Report D94194: Bird State 32-1 Pit, sampled on 05/24/2017

Enclosed is the e-Hardcopy 2.0 report for the following SGS Accutest job:

D94194: Bird State 32-1 Pit
Received: 05/24/2017 14 day TAT
Renegade Oil & Gas

The attached PDF file contains your report; 21 pages.
Report includes QC summaries.
The scanned chain of custody is also included in this report.

NOTE: This PDF contains complete COMMBN deliverables.
No paper report will be mailed.

A RESULT SUMMARY TABLE is also attached in HTM format. This file can be opened as a web page - or- it can be saved to disk and opened using Excel.

Address questions/changes to your project manager at the link below:

Cristina Araujo
Cristina.Araujo@sgs.com

NOTE: This PDF file is an e-Hardcopy 2.0 report. It is a complete, self-contained report with bookmarks, table of contents, and section markers, all with hypertext links for ease of navigation. We believe you will find it to be the most easy to use data package in the industry.

SGS Accutest LabLink®

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|-------------------------------------|-------------------------------|------------------------------|
| SGS Accutest Mountain States | | Jun 12, 2017 16:56 pm |
| Job Number: | D94194 | |
| Account: | Renegade Oil & Gas | |

| | | | | | | |
|--|-------|---|--|--|---|---|
| Project: | | Bird State 32-1 Pit | | | | |
| Project Number: | | | | | | |
| | | | | | Legend: | Hit |
| Client Sample ID: | | RECLAIMED PIT #4D-NORTH 12 YDS | RECLAIMED PIT #6 NORTH 18 YDS | RECLAIMED PIT #7 SOUTH 18 YDS | RECLAIMED PIT #8 WEST 18 YDS | RECLAIMED PIT #9 NW 18 YDS |
| Lab Sample ID: | | D94194-1 | D94194-2 | D94194-3 | D94194-4 | D94194-5 |
| Date Sampled: | | 05/24/2017 | 05/24/2017 | 05/24/2017 | 05/24/2017 | 05/24/2017 |
| Matrix: | | Soil | Soil | Soil | Soil | Soil |
| GC Semi-volatiles (SW846-8015B) | | | | | | |
| TPH-DRO (C10-C28) | mg/kg | 433 | ND (9.5) | 70.1 | 98.6 | 102 |
| General Chemistry | | | | | | |
| Solids, Percent | % | 80.1 | 94 | 87 | 89.9 | 86.4 |