To: McCullough, Chris@DOC[Chris.McCullough@conservation.ca.gov]
Cc: Albright, David[Albright.David@epa.gov]; Walker, Alan@DOC[Alan.Walker@conservation.ca.gov]; Salera, Jerry@DOC[Jerry.Salera@conservation.ca.gov]; Dudak, Daniel@DOC[Daniel.Dudak@conservation.ca.gov]
From: Dermer, Michele
Sent: Wed 12/23/2015 4:19:13 PM
Subject: RE: Idle wells in Las Cienegas

That would be helpful Chris. I look forward to hearing from you.

Sincerely,

Michele

From: McCullough, Chris@DOC [mailto:Chris.McCullough@conservation.ca.gov]
Sent: Tuesday, December 22, 2015 4:57 PM
To: Dermer, Michele <Dermer.Michele@epa.gov>
Cc: Albright, David <Albright.David@epa.gov>; Walker, Alan@DOC <Alan.Walker@conservation.ca.gov>; Salera, Jerry@DOC <Jerry.Salera@conservation.ca.gov>; Dudak, Daniel@DOC <Daniel.Dudak@conservation.ca.gov>
Subject: RE: Idle wells in Las Cienegas

Michele,

I spoke with our staff today, and found the BFW determination was based upon the Division's oil and gas field datasheets, which in general identified BFW as waters sands containing less than 3,000 TDS. The BFW identified from the datasheet on the Las Cienegas field, Fourth Avenue, and Good Shepherd areas, is 400 feet. I have asked our staff to go through the available reports and logs to evaluate where the USDW is, in relationship to this BFW pick.

Chris

From: Dermer, Michele [mailto:Dermer.Michele@epa.gov]
Sent: Tuesday, December 22, 2015 3:57 PM
To: McCullough, Chris@DOC <Chris.McCullough@conservation.ca.gov>
Cc: Albright, David <Albright.David@epa.gov>; Walker, Alan@DOC <Alan.Walker@conservation.ca.gov>; Salera, Jerry@DOC <Jerry.Salera@conservation.ca.gov>
Subject: RE: Idle wells in Las Cienegas

Hello Chris,

I was contacted again today by the citizen and we are looking for a DOGGR response on this issue, so we may respond to the inquiry. I realize it is the holiday season; I hope to hear from you when you return from your break .

Thanks!

Michele

Michele Dermer

Drinking Water Protection Section

EPA Region 9

(415) 972-3417

Dermer.michele@epa.gov

From: Dermer, Michele

Sent: Friday, December 18, 2015 9:17 AM
To: McCullough, Chris@DOC <Chris.McCullough@conservation.ca.gov>
Cc: Albright, David <Albright.David@epa.gov>; Walker, Alan@DOC <Alan.Walker@conservation.ca.gov>; Salera, Jerry@DOC <Jerry.Salera@conservation.ca.gov>
Subject: RE: Idle wells in Las Cienegas

Thanks very much for your note Chris. I appreciate you getting back to me. I am trying to get an understanding of the situation so I may respond to the inquiry. Would you explain how DOGGR would define the base of fresh water in this instance? Thanks, Michele

From: McCullough, Chris@DOC [mailto:Chris.McCullough@conservation.ca.gov]
Sent: Thursday, December 17, 2015 8:27 PM
To: Dermer, Michele <Dermer.Michele@epa.gov>
Cc: Albright, David <Albright.David@epa.gov>; Walker, Alan@DOC <Alan.Walker@conservation.ca.gov>; Salera, Jerry@DOC <Jerry.Salera@conservation.ca.gov>
Subject: RE: Idle wells in Las Cienegas

Hello Michele,

I apologize it took me the additional day to respond to your email. Unfortunately, my time has also been consumed in meetings the last two days. The Freeport-McMoRan Oil & Gas Co., Fourth Avenue drill site, in the Las Cienegas field has been shut-in since 2010. The UIC project in place at the time, allowed for 6 approved water flood wells. In early 2014, the operator was contacted by the Division, and reminded that, per the project approval letter, even though their UIC wells at the drill site had been shut-in since 2010, they were still required to pass the Division's two part mechanical integrity test (MIT) to retain their classification as water flood wells. In this case, the wells had become due for both the standard annular pressure test (SAPT), and fluid migration test (RA).

The operator began the first part of the MIT, the SAPT test, on the 6 UIC wells in April 2014. For UIC projects like this (ones where no other annular monitoring program is in place) the Division requires the casing/tubing annulus be tested to the maximum allowable surface pressure (MASP) on the injection string. The MASP for these wells ranges from 800 psi, to 1520 psi. Three of the wells tested, and passed holding pressure at their MASP value. Three other UIC wells failed to hold pressure at MASP. Two of those wells held pressure until 800 psi, and then began leaking off. One well, Fourth Avenue 4, had 500 psi on the tubing/casing annulus prior to

the test. Attempts to bleed the casing off were unsuccessful after 45 minutes. The operator applied for, and received a permit to plug and abandon this well in June 2015. This work is expected to begin very soon.

After the operator failed to achieve passing MIT tests for all of its UIC wells, the operator requested the water flood project for this drill site be terminated. The Division terminated the project in January 2015.

Even though the wells were no longer approved for water injection, the wells were still classified as idle, as were the other oil and gas wells at the drill site. The operator was still required to demonstrate the wells posed no threat to fresh water sands. The Division's idle wells test requirements are either a demonstration that the fluid level in the casing is below the base of fresh water (BFW), or that the casing has sufficient integrity to prevent the leakage of oil well fluids. The integrity test is performed in one of two manners, a hydro test of the casing against a pack-off element immediately above the perforations, or by modified ADA test. The operator began testing its idle wells in April 2014. The two remaining failed SAPT wells, Fourth Avenue 10, and Fourth Avenue 15, were tested in June 2015. Both wells had demonstrated fluid levels below the BFW.

The Division continues to work with the operator in evaluating the future viability of this site, and the Division will continue to take enforcement action against all non-compliant activities.

I hope you find this helpful in understanding the UIC status of the Fourth Avenue drill site. If you have any further questions, please don't hesitate to contact Dan Dudak or myself.

Chris McCullough

Area Supervising Engineer

Department of Conservation

Division of Oil, Gas, and Geothermal Resources, District 1

Every Californian should conserve water. Find out how at:

SaveOurWater.com · Drought.CA.gov

From: Dermer, Michele [mailto:Dermer.Michele@epa.gov]
Sent: Wednesday, December 16, 2015 12:49 PM
To: McCullough, Chris@DOC <Chris.McCullough@conservation.ca.gov>
Cc: dan.dudack@conservation.ca.gov; Albright, David <Albright.David@epa.gov>
Subject: FW: Idle wells in Las Cienegas

Hello Chris and Dan,

Thank you again for your earlier call. I'm sorry I was unable to pick up during my meeting. As I said in my message to you Chris, I am trying to respond to a citizen inquiry regarding several idle injection wells at the 4th Ave drill site that apparently failed APT recently. Please refer to my email below to Rob. The concern is that there are idle wells with failed integrity, but as I understood it, the wells were either repaired or being plugged. The inquirer is trying to satisfy his concern about a risk to groundwater at the site. We seem to be caught around the regulations and the adequacy of protection of underground sources of drinking water vs. BFW. I was hoping to get a concise explanation of what is being done with regard to the injection wells and some explanation of how the situation is being handled, consistent with the regulations.

As I mentioned I will not be available for the rest of today, beginning at 1pm. Feel free to send me a reply and I can follow up with any questions tomorrow. Thanks!

Sincerely,

Michele

Michele Dermer

Drinking Water Protection Section

EPA Region 9

(415) 972-3417

Dermer.michele@epa.gov

From: Dermer, Michele
Sent: Tuesday, December 15, 2015 12:41 PM
To: 'Habel, Rob@DOC' <Rob.Habel@conservation.ca.gov>
Cc: Albright, David <Albright.David@epa.gov>
Subject: Idle wells in Las Cienegas

Rob – I am sorry to bother you again but I responded to the citizen regarding the inquiry we discussed last week and provided some information based on our conversation. In the meantime the requestor was able to speak with some folks in the DOGGR district. It would appear from the information he received that there is a difference between the interpretation of what is to be protected -- BFW or USDW. This is the text of the email I received, below. David and I just spoke about this -- we know you know what is required but it's unclear whether there is just a disconnect on what is being protected, or if its incorrect. Also, I may have misunderstood what you told me, I thought the 3 wells that failed their MITs were repaired, and subsequently passed MIT, but remain idle, but maybe I didn't get that right? Only the last one (0310) that failed was to be plugged this month? The district did not seem to know about the plugging plan. Can you help me continue to try to straighten this out? Thanks, Michele

Dear Ms Dermer

I just spoke with the Acting Supervising Engineer at DOGGR District 1, Ellen Moser, and then on her referral I spoke with the engineer in charge of their idle well program, A B Abdulrahman.

Would you be willing to compare notes with me? I think we have been talking to different people and we are perhaps getting different information. The key points of difference are whether any corrective work has been done and whether any wells have been tested in the last couple of months.

Ms Moser and Mr. Abdulrahman could confirm for me that fluid level tests were done in 2015, but could not confirm that any repair work had been done on any of these wells.

They both stressed that repair work would fall under the purview of Barry Irick, and they also explained that repairing the problems that caused the failed SAPTs in April 2014 would not be required for shut-in and/or idle wells so long as fluid levels tested below the BFW.

The testing data that Mr Abdulrahman and Ms Moser could see dated from March through June 2015. They looked up two of the three wells while on the phone with me:

1) 4th Ave #4, API 03700310 appears to have failed the fluid level test and then was subjected to nitrogen test in March-April 2015, and has been scheduled to be plugged since June 2015 but has not yet been plugged.

2) 4th Ave #10, API 03700316 appears to have passed a fluid level test in June 2015, showing fluid was below the BFW, and so is being allowed to sit idle indefinitely with whatever problem that cause the failure of the SAPT in April 2015.

I cannot yet definitively say no corrective work has been done on any of the wells, but that certainly seems to be the case.

DOGGR's response is , as I understand it, to say that the wells meet the requirements of DOGGRs regulations, and the regulations allow wells with failed SAPTs to sit idle indefinitely - which was one of the important criticisms of the 2011 audit.

Thank you