Message

From: Smallbeck, Donald R. [donald.smallbeck@woodplc.com]
Sent: 6/21/2018 3:58:32 PM
To: 'Wayne Miller' [Miller.Wayne@azdeq.gov]; d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]
CC: 'MOOK, PHILIP H JR GS-15 USAF AFCEC AFCEC/CIBW' [philip.mook@us.af.mil]; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' [catherine.jerrard@us.af.mil]; Pearson, Stuart C. [stuart.pearson@woodplc.com]
Subject: ST012 Preliminary Baseline sampling-CZ

Wayne and Carolyn

The re-baseline sampling event has resulted in benzene detected in ST012-CZ23 at 97 µg/L. This location has serves as a perimeter monitoring well in the CZ and has been sampled several times previously with results ranging from below detection limits to 6.3 µg/L. The closest wells to CZ23 and their most recent results (also collected as part of re-baseline sampling in April) are CZ07 (230 µg/L), CZ08 (130 µg/L), and CZ09 (210 µg/L). Benzene concentrations in all three of these wells during re-baseline sampling were at least 50% less than previous results.

In accordance with the decision matrix (Appendix J) of the Pilot Study Implementation Work Plan dated April 5, 2018, a benzene detection above the MCL at this location would be covered under the decision diamond "Other non-performance criteria that may require action during active EBR" Potential Contingencies Condition 2. Contingency Action 'b' is to evaluate and implement extraction to prevent further migration which was initiated on 4 May 2018. The current actions which include extraction at CZ07 and monitoring of nearby wells is consistent with the action. Monthly monitoring for benzene will continue at CZ23 to evaluate the effect of continued extraction at CZ07 and assess whether any additional measures should be considered and/or implemented at the site.

The following summarizes the activities related to the benzene detection in CZ23:

. CZ23 was sampled on April 10, 2018
. Extraction was started in CZ07 the week ending 4 May as part of the Pilot Study Implementation Work Plan. CZ07 has the high temperature pump and was started early to check sustained groundwater temperatures and potentially free up the high temperature pump for use in other wells.
. Upon receipt and evaluation of the lab data indicating the result in CZ23, a transducer was deployed the week ending 18 May for evaluating hydraulic effects in CZ23 from the pumping at CZ07
. Water level readings collected on May 29 indicated a depth to water of 143.31 ft. This compares to a reading of 144.06 taken on 4 April 2018. This indicates that the pumping at CZ07 has an influence at CZ23 because the water table was lower by approximately 0.7 ft.
. A second VOC sample was collected in CZ23 on June 4, 2018 for confirmation and to assess the effect of the pumping at CZ07. The sample was split with a quick turn-around analysis at the Phoenix Test America lab and a standard turn around at the DOD-certified Denver Test America lab. The preliminary quick turn result was 90 µg/L.
. The pump at CZ07 will be cycled on and off to further evaluate the hydraulic influence at CZ23.
. The water temperature at CZ07 has been in the low 150s F. To facilitate an increase in pumping at this area and to free up the high temperature pneumatic pump, it will be exchanged with an electrical submersible pump (which has a higher peak flow rate) the week of June 25th.
. Extraction at CZ07 and monthly monitoring at CZ23 will continue.

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wood.

Amec Foster Wheeler and Wood Group are now Wood.

From: Smallbeck, Donald R.
Sent: Monday, June 18, 2018 11:28 AM
To: 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; 'd'Almeida, Carolyn K.' <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <Stuart.Pearson@amecfw.com>
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Subject: ST012 Site Activities and two week look ahead

ALL

Activities Last Week

- SVE Operation
- LNAPL checks
- Continued extraction and treatment operations. No LNAPL in treatment system. System shut down temporarily due to scaling in the air stripper discharge pump.
- Sample results indicated high calcium in process water
- Ordered and received additional chemical to address scaling, restarted system
- Continued CZ07 extraction while treatment system was shut down. Extracted groundwater held in equalization tank until treatment system restart.

This Week (6/18-6/22)

- SVE Operation
- Complete pre-injection LNAPL checks
- Continue extraction and treatment.
- Purchase platform stairs to improve access to tanks for inspections.
- Continue evaluation of available re-baseline data, summarize for BCT presentation
- Continue CZ07 extraction

Week 2 (6/25-6/29)

- SVE Operation
- Install/changeout pumps for hot extraction wells
- Receive additional load of sodium sulfate
- Summarize available re-baseline data for BCT presentation
- Continue CZ07 extraction

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