Wickham, Jerry, Env. Health

From: Wickham, Jerry, Env. Health
Sent: Monday, May 17, 2010 1:39 PM

To: Tamorah Bryant

Cc: Jenny Weese; Mike Van den Enden

Subject: RE: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial

Action

Tamorah,

Your proposal to continue the injections for an additional 8 events is acceptable.

Regards, Jerry Wickham Alameda County Environmental Health

From: Tamorah Bryant [TamorahB@gtienv.com]

Sent: Monday, May 17, 2010 10:21 AM **To:** Wickham, Jerry, Env. Health **Cc:** Jenny Weese; Mike Van den Enden

Subject: RE: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial Action

Jerry,

During the May 11th injection event, the newly installed wells (MW-101 and MW-103) readily accepted 50 gallons of a 10% hydrogen peroxide solution, followed by 50 gallons of tap water. During this event, STMW-1 accepted 10 gallons of a 10% hydrogen peroxide solution, P1 accepted 5, and STMW-3 accepted 35 gallons. The eighth injection event is scheduled for May 18th.

Due to the reduced volume that the wells were able to accept, I would like to request that the injection continue for an **additional 8 events** (total of 16 events), in the interest of increasing the oxygen available in the subsurface.

Please let me know if you have any questions, or need more information.

Thank you,

Tamorah Bryant, P.E.
Geological Technics Inc.
1172 Kansas Avenue
Modesto, CA 95351
Tel 209 522 4119
Fax 209 522 4227

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From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]

Sent: Thursday, April 22, 2010 5:51 PM

To: Tamorah Bryant

Cc: Jenny Weese; Mike Van den Enden

Subject: RE: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial Action

Tamorah,

Your proposal to continue injections for an additional four weekly events is acceptable.

Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Tamorah Bryant [mailto:TamorahB@gtienv.com]

Sent: Wednesday, April 21, 2010 4:35 PM

To: Wickham, Jerry, Env. Health

Cc: Jenny Weese; Mike Van den Enden

Subject: RE: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial Action

Jerry,

Thank you for your prompt response. On April 15th we conducted the third weekly hydrogen peroxide injection event at the 909 Bluebell Drive, Livermore site, and included the newly installed wells.

Per your correspondence of March 13, 2009, which provided technical comments on the site conceptual model, the interim hydrogen peroxide injections were directed to be conducted over a period of no longer than four weeks. The fourth weekly event is scheduled for April 22nd.

At this time, on behalf of our clients, I would like to respectfully request that the interim hydrogen peroxide injection be continued for an **additional four weekly events**. The basis for this request is a comparison of the field parameters collected prior to the interim remedial action, with those collected during the first two events, and the acceptance of the hydrogen peroxide in the intermediate wells.

Specifically, STMW-1, STMW-2, STMW-3 and P1 have all demonstrated a significant increase in dissolved oxygen from before remediation began to prior to the second event. Each well was purged of approximately three volumes prior to final DO measurement. The data will be presented and discuss in the Additional Site Characterization and Interim Remedial Action Report that is being prepared and will be submitted to ACEH shortly. A summary is included below:

Location	Pre Remedial DO Level (2/10/2010)	Mid Remedial DO Level (4/7/10)
STMW-1	6.77	46.5
STMW-2	0.87	3.65
STMW-3	0.89	44.26
P1	0.85	41.56

During the April 15th injection event, the newly installed wells readily accepted 50 gallons of a 7% hydrogen peroxide solution, followed by 50 gallons of tap water. This result was expected, since the two wells (MW-101, -103) were screened to a coarse grained unit. It is my opinion that this may be an effective way of addressing the soil and groundwater contamination reported in the median of Bluebell Drive.

Also during the April 15th event, STMW-1 and P1 accepted 10 gallons of the 7% hydrogen peroxide solution, and STMW-3 accepted 30 gallons. Due to the reduced volume that the wells were able to accept, it is **proposed that a 10% hydrogen peroxide solution** be injected into these wells, in the interest of increasing the oxygen available in the subsurface.

Please advise, and let me know if you have any questions, or need more information.

Thank you,

Tamorah Bryant, P.E.
Geological Technics Inc.
1172 Kansas Avenue
Modesto, CA 95351
Tel 209 522 4119
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From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]

Sent: Wednesday, April 14, 2010 4:21 PM

To: Tamorah Bryant

Cc: Jenny Weese; Mike Van den Enden

Subject: RE: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial Action

Tamorah,

Your proposal below to conduct oxidant injections in two newly installed wells is acceptable.

Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Tamorah Bryant [mailto:TamorahB@gtienv.com]

Sent: Wednesday, April 14, 2010 11:52 AM

To: Wickham, Jerry, Env. Health **Cc:** Jenny Weese; Mike Van den Enden

Subject: Springtown - 909 Bluebell Drive, Livermore - proposed addition to Interim Remedial Action

Jerry,

GTI has recently completed the characterization work outlined in the Additional Site Characterization and Interim Remedial Action Work Plan. The report of findings is in progress, and will be submitted to you for review shortly.

The interim remedial action work is currently in progress, and in addition to the monitoring wells specified in the work plan (STMW-1, STMW-3 and P1), I would like to propose that two of the newly installed monitoring wells (MW-101 and MW-103) also receive in-situ chemical oxidation. These two monitoring wells are screened to the sand unit (32 to 37 feet bgs and 32 to 40 feet bgs), where samples from a Geoprobe boring located in the median of Bluebell drive were reported to contain contamination at 28 to 35 feet bgs. It is proposed that introducing the hydrogen peroxide to these wells would address the contamination present at this deeper interval, and may have a larger radius of influence due to the presence of the coarse grained unit.

Similar to what was proposed in the work plan, 50 gallons of a 7% solution of hydrogen peroxide is proposed to be injected into the two additional wells, followed by 50 gallons of tap water to encourage spreading into the formation.

Please advise, and let me know if you have any questions or need more information.

Thank you,

Tamorah Bryant, P.E. Geological Technics Inc. 1172 Kansas Avenue Modesto, CA 95351 Tel 209 522 4119 Fax 209 522 4227

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