

## Detterman, Mark, Env. Health

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**From:** Detterman, Mark, Env. Health  
**Sent:** Thursday, March 09, 2017 9:59 AM  
**To:** 'Ruchi Mathur'  
**Cc:** 'Mansour Sepehr'  
**Subject:** RE: Groundwater Monitoring @ 15101 Freedom Ave

Hi Ruchi,

Good question. While I understand the question in regards to cost saving, I believe it is best to conduct the quarterly event, so that potential rebound can be evaluated at the entire site, and because the rising groundwater levels can also lead to increased groundwater concentrations. So far rebound or the rising groundwater levels do not appear to be affecting wells MW-3 and MW-10R substantially, but might, and a look at the site is also warranted in my thinking.

Let me know if you have questions,

*Mark Detterman*  
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*PDF Copies of case files can be downloaded at:*  
*<http://www.acgov.org/aceh/lop/ust.htm>*

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**From:** Ruchi Mathur [mailto:[rmathur@somaenv.com](mailto:rmathur@somaenv.com)]  
**Sent:** Wednesday, March 08, 2017 2:48 PM  
**To:** Detterman, Mark, Env. Health <[Mark.Detterman@acgov.org](mailto:Mark.Detterman@acgov.org)>  
**Cc:** 'Mansour Sepehr' <[MSepehr@SomaEnv.com](mailto:MSepehr@SomaEnv.com)>  
**Subject:** Groundwater Monitoring @ 15101 Freedom Ave

Hi Mark,

Based on your directive dated January 6, 2017, SOMA has conducted monthly groundwater monitoring and sampling as proposed in our workplan where we proposed monthly sampling of MW-3 and MW-10R. These two wells have been sampled three times (Dec 2016, Jan 2017, & Feb 2017). The sampling results show that contaminant concentrations have remained stable and no free product or sheen was detected in these two wells. Please find pages attached showing sampling results for these two wells.

Based on these results would you suggest that we should conduct another round of monitoring event in First Quarter 2017? We have a monitoring event for this site scheduled for next week. I would greatly appreciate your suggestion in this matter.

Thank You,

**Ruchi Mathur**

*Project Engineer*

*SOMA Environmental Engineering, Inc.*

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**Table 1**  
**Historical Groundwater Elevation Data and Analytical Results**  
**15101 Freedom Avenue, San Leandro, CA**

| Monitoring Well   | Date              | Casing Elevation <sup>1</sup> (feet) | Depth to Groundwater (feet) | Free-Product (feet)/ Sheen (Y/N) | Groundwater Elevation (feet) | TPH-g (µg/L) | Benzene (µg/L)  | Toluene (µg/L)  | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MtBE 8260B <sup>2</sup> (µg/L) |
|-------------------|-------------------|--------------------------------------|-----------------------------|----------------------------------|------------------------------|--------------|-----------------|-----------------|---------------------|----------------------|--------------------------------|
| <b>MW-3 cont.</b> | 3/2/2012          | 53.91                                | 22.39                       | N                                | 31.52                        | 13,000       | 440             | 23              | 690                 | 1,570                | <5.0                           |
|                   | 6/7/2012          | 53.91                                | 22.50                       | N                                | 31.41                        | 9,000        | 290             | 9.3             | 520                 | 900                  | <5.0                           |
|                   | 9/21/2012         | 53.91                                | 23.17                       | N                                | 30.74                        | 12,000       | 710             | 26              | 630                 | 1,230                | 8.2                            |
|                   | 12/14/2012        | 53.91                                | 22.32                       | Y                                | 31.59                        | 8,500        | 350             | 8.7             | 550                 | 1,003                | <5                             |
|                   | 3/28/2013         | 53.91                                | 22.69                       | Y                                | 31.22                        | 9,300        | 790             | 8.2             | 760                 | 974                  | 8.7                            |
|                   | 6/11/2013         | 53.91                                | 23.06                       | Y                                | 30.85                        | 14,000       | 700             | 26              | 860                 | 1,630                | 6.1                            |
|                   | 9/17/2013         | 53.91                                | 23.41                       | Y                                | 30.50                        | 28,000       | 570             | 37              | 1,800               | 3,560                | <10                            |
|                   | 12/6/2013         | 53.91                                | 23.76                       | Y                                | 30.15                        | 23,000       | 360             | 26              | 1,700               | 3,330                | <10                            |
|                   | 3/12/2014         | 53.91                                | 23.13                       | 22.98                            | 30.88                        | FP           | FP              | FP              | FP                  | FP                   | FP                             |
|                   | 6/5/2014          | 53.91                                | 23.08                       | 23.06                            | 30.84                        | FP           | FP              | FP              | FP                  | FP                   | FP                             |
|                   | 9/23/2014         | 53.91                                | 24.16                       | Y                                | 29.75                        | 41,000       | 230             | 84              | 1,000               | 4,500                | <10                            |
|                   | 12/23/2014        | 53.91                                | 20.83                       | N                                | 33.08                        | 13,000       | 64              | 28              | 250                 | 1,250                | <3.6                           |
|                   | 3/20/2015         | 53.91                                | 22.32                       | Y                                | 31.59                        | 18,000       | 140             | 24              | 730                 | 1,870                | <3.6                           |
|                   | 6/4/2015          | 53.91                                | 22.77                       | Y                                | 31.14                        | 32,000       | 200             | 17              | 680                 | 1,820                | <6.3                           |
|                   | 9/11/2015         | 53.91                                | 23.31                       | Y                                | 30.60                        | 24,000       | 260             | <6.3            | 380                 | 1,144                | <6.3                           |
|                   | 12/29/2015        | 53.91                                | 22.95                       | Y                                | 30.96                        | 13,000       | 74              | <5.0            | 220                 | 628                  | <5.0                           |
|                   | 3/24/2016         | 53.91                                | 20.75                       | Y                                | 33.16                        | 7,600        | 180             | 2               | 130                 | 263                  | 3.2                            |
|                   | 6/16/2016         | 53.91                                | 20.78                       | Y                                | 33.13                        | 10,000       | 98              | 2.6             | 250                 | 507                  | 1.7                            |
|                   | 9/21/2016         | 53.91                                | 23.12                       | N                                | 30.79                        | 12,000       | 380             | <2.5            | 250                 | 424                  | <2.5                           |
|                   | <b>12/14/2016</b> | <b>53.91</b>                         | <b>22.4</b>                 | <b>N</b>                         | <b>31.51</b>                 | <b>3,300</b> | <b>30</b>       | <b>&lt;0.71</b> | <b>63</b>           | <b>94.6</b>          | <b>&lt;0.71</b>                |
| <b>1/18/2017</b>  | <b>53.91</b>      | <b>20.82</b>                         | <b>N</b>                    | <b>33.09</b>                     | <b>1,700</b>                 | <b>20</b>    | <b>&lt;0.5</b>  | <b>32</b>       | <b>46.1</b>         | <b>&lt;0.5</b>       |                                |
| <b>2/24/2017</b>  | <b>53.91</b>      | <b>19.35</b>                         | <b>N</b>                    | <b>34.56</b>                     | <b>3,200</b>                 | <b>110</b>   | <b>&lt;0.71</b> | <b>69</b>       | <b>47.5</b>         | <b>1.90</b>          |                                |
| <b>MW-4</b>       | 5/10/2002         | 50.54                                | 21.78                       | -                                | 28.76                        | 880          | 25              | 1.0C            | 110                 | 52                   | 12,000                         |
|                   | 8/8/2002          | 50.54                                | 22.50                       | -                                | 28.04                        | 3,800        | 70              | <5.0            | 300                 | 115                  | 4,800                          |
|                   | 11/8/2002         | 50.54                                | 22.81                       | -                                | 27.73                        | 5,100        | 150             | 10              | 460                 | 258                  | 2,400                          |
|                   | 2/21/2003         | 50.54                                | 21.48                       | -                                | 29.06                        | 3,200        | 98              | 66              | 220                 | 360                  | 6,600                          |
|                   | 5/28/2003         | 50.54                                | 21.24                       | -                                | 29.30                        | 6,200        | 140             | 46              | 200                 | 790                  | 2,300                          |
|                   | 8/12/2003         | 50.54                                | 22.32                       | -                                | 28.22                        | 7,500        | 180             | 57              | 220                 | 1450                 | 1,900                          |
|                   | 10/9/2003         | 50.54                                | 22.74                       | -                                | 27.80                        | 5,800        | 250             | 32              | 300                 | 970                  | 7,800                          |
|                   | 1/15/2004         | 50.54                                | 21.19                       | -                                | 29.35                        | 5,900        | 270             | 17 C            | 150                 | 640                  | 7,300                          |
|                   | 5/25/2004         | 50.54                                | 22.03                       | -                                | 28.51                        | 9,100        | 210             | 51              | 200                 | 1190                 | 1800                           |
|                   | 9/21/2004         | 53.31                                | 22.76                       | -                                | 30.55                        | 5,200        | 290             | 12              | 370                 | 600                  | 7300                           |
|                   | 12/14/2004        | 53.31                                | 21.99                       | -                                | 31.32                        | 8,937        | 538             | 114             | 416                 | 2379                 | 5021                           |

**Table 1**  
**Historical Groundwater Elevation Data and Analytical Results**  
**15101 Freedom Avenue, San Leandro, CA**

| Monitoring Well           | Date              | Casing Elevation <sup>1</sup> (feet) | Depth to Groundwater (feet) | Free-Product (feet)/Sheen (Y/N) | Groundwater Elevation (feet) | TPH-g (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | MtBE 8260B <sup>2</sup> (µg/L) |
|---------------------------|-------------------|--------------------------------------|-----------------------------|---------------------------------|------------------------------|--------------|----------------|----------------|---------------------|----------------------|--------------------------------|
| <b>MW-10</b>              | 9/22/2014         | 44.66                                | 17.84                       | N                               | 26.82                        | 23,000       | <10            | <10            | 1200                | 2,610                | <10                            |
|                           | 12/22/2014        | 44.66                                | 12.33                       | N                               | 32.33                        | 6,000        | <2.5           | <2.5           | 390                 | 802                  | <2.5                           |
|                           | 3/19/2015         | 44.66                                | 15.01                       | N                               | 29.65                        | 3,500        | <1.0           | <1.0           | 130                 | 279                  | <1.0                           |
|                           | 6/3/2015          | 44.66                                | 15.81                       | N                               | 28.85                        | 24,000       | <5.0           | <5.0           | 870                 | 1,358                | <5.0                           |
|                           | 9/10/2015         | 44.66                                | 17.03                       | N                               | 27.63                        | 28,000       | <10            | <10            | 1,200               | 2,173                | <10                            |
|                           | 12/28/2015        | 44.66                                | 15.18                       | N                               | 29.48                        | 22,000       | <10            | <10            | 930                 | 1,737                | <10                            |
|                           | 3/24/2016         | 44.66                                | 13.1                        | N                               | 31.56                        | 22,000       | <5             | <5             | 620                 | 1,038                | <5                             |
| <b>MW-10R</b><br>Post MPE | 6/15/2016         | 45.13                                | 13.6                        | N                               | 31.53                        | 28,000       | <10            | <10            | 720                 | 1,454                | <10                            |
|                           | 8/8/2016          | 45.13                                | NA                          | N                               | NA                           | 8,100        | <4.2           | <4.2           | 150                 | 267.1                | <4.2                           |
|                           | 9/21/2016         | 45.13                                | 16.84                       | N                               | 28.29                        | 10,000       | 9.6            | <2.0           | 340                 | 432                  | <2.0                           |
|                           | <b>12/15/2016</b> | <b>45.13</b>                         | <b>14.92</b>                | <b>N</b>                        | <b>30.21</b>                 | <b>5,200</b> | <b>&lt;2.0</b> | <b>&lt;2.0</b> | <b>170</b>          | <b>206.5</b>         | <b>&lt;2.0</b>                 |
|                           | <b>1/18/2017</b>  | <b>45.13</b>                         | <b>13.32</b>                | <b>N</b>                        | <b>31.81</b>                 | <b>6,500</b> | <b>&lt;2.5</b> | <b>&lt;2.5</b> | <b>160</b>          | <b>214.1</b>         | <b>&lt;2.5</b>                 |
|                           | <b>2/24/2017</b>  | <b>45.13</b>                         | <b>11.44</b>                | <b>N</b>                        | <b>33.69</b>                 | <b>3,300</b> | <b>&lt;2.5</b> | <b>&lt;2.5</b> | <b>100</b>          | <b>100.2</b>         | <b>&lt;2.5</b>                 |
| <b>MW-11</b>              | 9/22/2014         | 42.45                                | 15.52                       | N                               | 26.93                        | 2,100        | <0.5           | <0.5           | 2.7                 | 4.5                  | <0.5                           |
|                           | 12/22/2014        | 42.45                                | 10.08                       | N                               | 32.37                        | 310          | <0.5           | <0.5           | 1.8                 | 2.7                  | <0.5                           |
|                           | 3/19/2015         | 42.45                                | 12.77                       | N                               | 29.68                        | 870          | <0.5           | <0.5           | 1.4                 | 2.2                  | <0.5                           |
|                           | 6/3/2015          | 42.45                                | 13.5                        | N                               | 28.95                        | 330          | <0.5           | <0.5           | 2.0                 | 3.1                  | <0.5                           |
|                           | 9/10/2015         | 42.45                                | 14.79                       | N                               | 27.66                        | 78           | <0.5           | <0.5           | <0.5                | <0.5                 | <0.5                           |
|                           | 12/28/2015        | 42.45                                | 13.07                       | N                               | 29.38                        | 170          | <0.5           | <0.5           | 3.0                 | 4.2                  | <0.5                           |
|                           | 3/23/2016         | 42.45                                | 10.48                       | N                               | 31.97                        | 110          | <0.5           | <0.5           | <0.5                | <0.5                 | <0.5                           |
|                           | 6/16/2016         | 42.45                                | 10.51                       | N                               | 31.94                        | 100          | <0.5           | <0.5           | <0.5                | <0.5                 | <0.5                           |
|                           | 9/21/2016         | 42.45                                | 14.05                       | N                               | 28.40                        | 75           | <0.5           | <0.5           | 1.5                 | 1.7                  | <0.5                           |
|                           | <b>12/15/2016</b> | <b>42.45</b>                         | <b>12.3</b>                 | <b>N</b>                        | <b>30.15</b>                 | <b>65</b>    | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>1.4</b>          | <b>1.7</b>           | <b>&lt;0.5</b>                 |
| <b>Extraction Wells</b>   |                   |                                      |                             |                                 |                              |              |                |                |                     |                      |                                |
| <b>EX-1</b>               | 12/2/2009         | 47.36                                | 17.02                       | -                               | 30.34                        | 2,900        | 120            | 4              | 64                  | 410                  | 25                             |
|                           | 3/16/2010         | 47.36                                | 19.08                       | -                               | 28.28                        | 2,200        | 150            | 18             | 94                  | 326                  | 210                            |
|                           | 6/3/2010          | 47.36                                | 17.02                       | -                               | 30.34                        | 3,600        | 180            | 6.3            | 150                 | 428                  | 83                             |
|                           | 9/1/2010          | 47.36                                | 16.88                       | -                               | 30.48                        | 550          | 6.5            | 0.5            | 6.9                 | 31.7                 | 38                             |
|                           | 12/2/2010         | 47.36                                | 19.84                       | -                               | 27.52                        | <200         | 3.1            | <2.0           | <2.0                | <2.0                 | 210                            |