

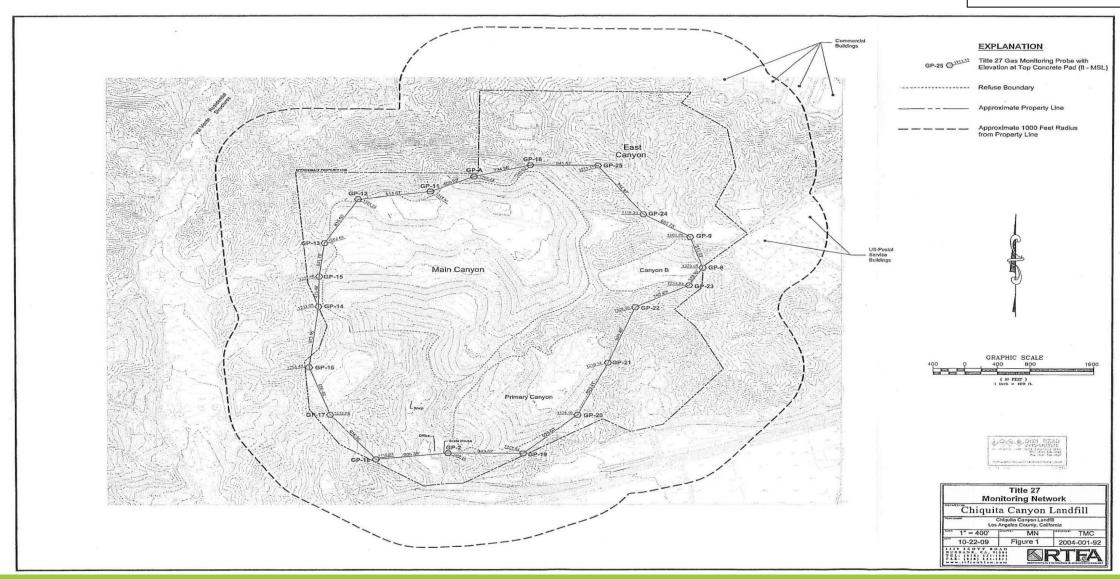
# Chiquita Canyon Landfill Gas Migration Monitoring

FACILITY AND PLAN REVIEW SUBCOMMITTEE

**SEPTEMBER 16, 2021** 

## Gas Monitoring Well Locations

Well Network Map extracted from December 2017 JTD Document



### Landfill Monitoring Well Readings (April – June 2021)

#### **April**

#### CHIQUITA CANYON LANDFILL (1150.1) PERIMETER GAS MONITORING DATA SHEET

| Date 4-          | 29-21 |         |                  |      |       | Weather Co   | nditions        | 511                        | y Clear     |
|------------------|-------|---------|------------------|------|-------|--------------|-----------------|----------------------------|-------------|
| Technician       |       |         | an(              |      |       | vveatner Co  | nomons          | Temp 82°                   |             |
| nst GF           |       |         |                  | 7)   |       | Mind Coord   | (MDL) 2 C       | Disastina I                | 3 mph ENE   |
|                  |       |         | 3                |      |       |              |                 |                            |             |
| Serial #         | 300 5 | 50      |                  |      |       | Barometric i | Pressure        | てから                        |             |
| Probe<br>Number  | Time  | Date    | CH4%<br>(% Vol.) | CO2% | 02%   | Bal %        | Evac.<br>(Sec.) | Pressure<br>(+/- in. w.c.) | Comments    |
| GP-A - 10        | 0819  | 4-29-21 | 0.0              | 0.1  | 16,3  | 83,6         | 25              | 710                        |             |
| 51               | 0820  | 1       | 0.0              | 00   | 16,3  | 83,7         | 131             | -1,59                      |             |
|                  | 0822  |         | 0,0              | 00   | 16,3  | 83.7         | 263             | 4.01                       |             |
| 151.5            | 0826  |         | 0.0              | 0,0  | 16.4  | 83.6         | 389             | 48                         |             |
| GP-1R - 26       | 1000  |         | Orc              | 7,6  | 14.2  | 83.1         | 62              | 10                         |             |
| 38               | 1001  |         | 0,0              | 115  | 1500  | 63,5         | 98              | 10                         |             |
| 47               | 1004  |         | 0.0              | 0.7  | 1518  | 83.5         | 121             | 10                         |             |
| GP-2 - 15.5      | 0940  |         | Aco              | 2-6  | 151   | 823          | 38              | -,01                       |             |
| 44.5             | 0941  |         | 0,0              | 1.9  | 1573  | 82,8         | 113             | 707                        |             |
| 53               | 0945  |         | 0.0              | 0,/  | 16.4  | 83.5         | 136             | 705                        |             |
| GP-5 - 10        | 0970  |         | 0,0              | 0,1  | 16,2  | 83,7         | 25              | 4.03                       |             |
| 45               | 0921  | 1       | 0,0              | 0,0  | 16,3  | 83,7         | 116             | 403                        |             |
| 93               | 0924  |         | 0,0              | 0.0  | 16.4  | 83.6         | 240             | 1.04                       |             |
| GP-6 - 10        | 8110  |         | 0.0              | 0.2  | 16.0  | 83.8         | 25              | toz                        |             |
| 30               | 0911  |         | 0.0              | 0.6  | 15.9  | 83.5         | 77.5            | 1.02                       |             |
| 60               | 0914  |         | 0.0              | 0.0  | 16,2  | 83.8         | 155             | 1.03                       |             |
| GP-7 - 10        | 0859  |         | 0.0              | 0,2  | 15.9  | 83.9         | 25              | 1.09                       |             |
| 30               | 0900  | 1       | 0.0              | 0.4  | 15.7  | 83.9         | 77              | 1.09                       |             |
| 60               | 0903  |         | 0.0              | 0.0  | 16.1  | 83,9         | 155             | +105                       |             |
| GP-8 - 10        | 0849  |         | 0.0              | 0.2  | 18.81 | 84.0         | 25              | 4.08                       |             |
| 60               | 0850  | -       | 0.0              | 0.0  | 15.9  | 84.1         | 155             | 1.04                       |             |
| 120              | 0853  |         | 0.0              | 0,0  | 15.9  | 84.1         | 310             | 98                         |             |
| GP-9 - 25        | 0842  |         | 0,0              | 0,4  | 15.6  | 84,0         | 64              | 1,09                       |             |
| 55               | 0843  |         | 0,0              | 1.8  | 14.7  | 83.5         | 142             | 4.08                       |             |
| 83               | 0845  |         | 0.0              | 0.0  | 16.0  | 84.0         | 214             | 1,08                       |             |
| GP-10 - 22       |       |         | 0.0              | 1,7  | 1512  | 83.1         | 56              | 1.05                       |             |
|                  | 0532  |         | 0.0              | 0.1  | 15,5  | 84.4         | 95              | -1:02                      |             |
|                  | 0834  |         | 0,0              | 0,0  | 16.1  | 85.9         | 162             | -180                       |             |
| 55.00            | 0638  |         | 0,0              | 0,0  | 16.1  | 83.9         | 224             | 88                         |             |
| GP-11 - 10       |       |         | 0,0              | 0,0  | 16.2  | 538          | 25              | 4.14                       |             |
| MARKET BARE AREA | 0808  |         | 0.0              | 0.0  | 16.3  | 83.7         | 180             | -3,81                      | <del></del> |
| 27.00            | 0810  |         | 0.0              | 0,0  | 16.3  | 83.7         | 364             | -477                       |             |
|                  | 08/4  | U       | 0.0              | 0.0  | 16.3  | 83.7         | 960             | -2,61                      |             |

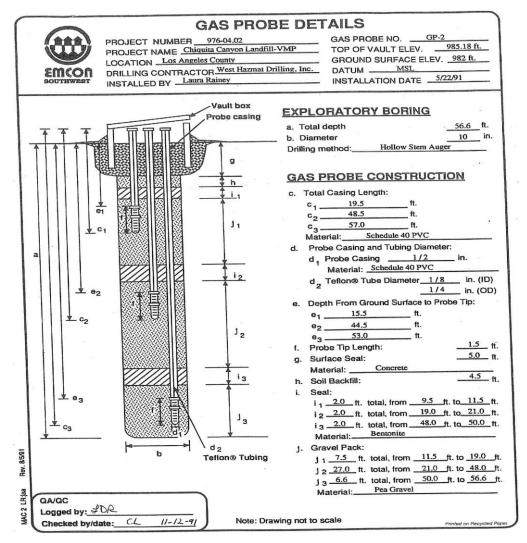
#### CHIQUITA CANYON LANDFILL (1150.1) PERIMETER GAS MONITORING DATA SHEET

|   |      |       |                  |                       |      |            |                 |                            | 101        |  |  |  |
|---|------|-------|------------------|-----------------------|------|------------|-----------------|----------------------------|------------|--|--|--|
| Date  |      |       | Dolanc           | and the second second |      | Weather Co | enditions       | <u> </u>                   | Y SLC lan- |  |  |  |
|   |      |       | 5000             |                       |      |            |                 |                            | MPH ENE    |  |  |  |
|   |      |       |                  | A sec. of             |      |            |                 |                            |            |  |  |  |
| Serial # 4580530 Barometric Pressure 28,57 in, Hg |      |       |                  |                       |      |            |                 |                            |            |  |  |  |
| Probe<br>Number                                   | Time | Date  | CH4%<br>(% Vol.) | CO2%                  | O2%  | Bal %      | Evac.<br>(Sec.) | Pressure<br>(+/- in, w.c.) | Comments   |  |  |  |
| GP-12 - 12  | 0751 | 429-2 | 10,0             | 01                    | 16,0 | 83.9       | 31              | toz                        |            |  |  |  |
| 38  | 0754 | 1     | 0.0              | 0,0                   | 16.1 | 83.9       | 98              | 1.02                       |            |  |  |  |
| 74  | 0754 |       | 0.0              | 0.0                   | 16.1 | 83.9       | 191             | 4.03                       |            |  |  |  |
| - 110   | 0757 |       | 0.0              | 0,0                   | 16.1 | 63.9       | 284             | 1.02                       |            |  |  |  |
| 224   | 0801 |       | 0.0              | 0.1                   | 16.0 | 83,9       | 1,020           | 4105                       |            |  |  |  |
| GP-13 - 10  | 0742 |       | 0.0              | 0.1                   | 16.0 | 83.9       | 25              | 1,10                       |            |  |  |  |
| 29  | 0741 |       | 0.0              | 0,3                   | 15,9 | 83.3       | 74              | 4,09                       |            |  |  |  |
| 58  | 0742 |       | 0,0              | 0.8                   | 15,4 |            | 149             | -1,28                      |            |  |  |  |
|   | 0744 |       | 0,0              | 1,6                   | 14,3 |            | 224             | -3,01                      |            |  |  |  |
| 173   | 0747 |       | 0.0              | 0,0                   | 15.8 | 84,2       | 13.5            | 7.40                       |            |  |  |  |
| GP-14 - 10  | 0730 |       | 0,0              | 0,1                   | 15.9 | 84,0       | 25              | `,02                       |            |  |  |  |
| 23  | 0731 |       | 0.0              | 0,1                   |      | 84.0       | 59              | -10                        |            |  |  |  |
| 44  | 5570 |       | 010              | 0,2                   | 15.9 |            | 113             | 7,10                       |            |  |  |  |
|   | 0735 |       | 0,0              | 1                     | 15.8 |            | 173             | -239                       |            |  |  |  |
| 134   | 0738 | 1     | 0.0              | 0.0                   | 16,0 | 840        | 346             | -13,96                     |            |  |  |  |

## Monitoring Well Construction

Extracted from December 2017 JTD Document

On-site (Landfill)



Extracted from December 2017 JTD Document

## Monitoring Well Information

Table 1
Perimeter Gas Monitoring Points

|                       |            |                                  |   |  | 1.  |  |                             | Monitoring Probe Depths |      |                    |     |     |  |              |
|-----------------------|------------|----------------------------------|---|--|---|--|-----------------------------|-------------------------|------|--------------------|-----|-----|--|--------------|
|                       | Well<br>ID | Surface<br>Elevation<br>(ft-MSL) | Base<br>Refuse<br>Elevation<br>(ft-MSL) | Title 27<br>Calculate<br>d Depth<br>(ft-bgs) | Ground-<br>water<br>Elevation<br>(ft-MSL) | Depth to<br>Ground-<br>water<br>(ft-bgs) | Boring<br>Depth<br>(ft-bgs) |                         |      | w ===><br>(ft-bgs) |     | ò   | Bentonite<br>Seal<br>Thickness<br>(ft) | Well Spacing |
|                       | GP-A       | 1266.44                          | 1000                                    | 266  | 1112.4                                    | 154.0                                    | 154                         | 10                      | 51   | 102                | 152 |     | 4 to 5                                 | 590 to GP-11 |
| <b>Existing Wells</b> | GP-2       | 982.16                           | 1000                                    | none   | 925.0                                     | 57.2                                     | 56.6                        | 15.5                    | 44.5 | 53                 |     |     | 2                                      | 944 to GP-19 |
|                       | GP-8       | 1223.95                          | 1100                                    | 124  | 1014.0                                    | 210.0                                    | 120                         | 10                      | 60   | 120                |     |     | 5                                      | 514 to GP-9  |
|                       | GP-9       | 1101.25                          | 1100                                    | 1  | 1015.0                                    | 86.3                                     | 88.5                        | 25                      | 55   | 83                 |     |     | 5+                                     | 687 to GP-24 |
|                       | GP-10      | 1246.03                          | 1000                                    | 246  | 1145.0                                    | 101.0                                    | 91.12                       | 20                      | 35   | 60                 | 91  |     | 5+                                     | 735 to GP-A  |
|                       | GP-11      | 1315.91                          | 1000                                    | 316  | 1104.1                                    | 211.8                                    | 250                         | 10                      | 70   | 141                | 208 |     | 4 to 5                                 | 915 to GP-12 |
|                       | GP-12      | 1335.78                          | 1000                                    | 336  | 1097.8                                    | 238.0                                    | 260                         | 12                      | 38   | 74                 | 110 | 224 | 5+                                     | 816 to GP-13 |
|                       | GP-13      | 1262.88                          | 1000                                    | 263  | 1080.0                                    | 182.9                                    | 174                         | 10                      | 29   | 58                 | 87  | 173 | 5+                                     | 542 to GP-15 |
|                       | GP-14      | 1212.00                          | 1000                                    | 212  | 1066.0                                    | 146.0                                    | 165                         | 10                      | 23   | 44                 | 67  | 134 | 5+                                     | 974 to GP-16 |
|                       | GP-15      | 1215.5                           | 1000                                    | 215.5  | 1106.37                                   | 109.18                                   | 120                         | 10                      | 40   | 60                 | 90  | 115 | 5+                                     | 473 to GP-14 |
|                       | GP-16      | 1254.2                           | 1000                                    | 254.2  | 1002.74                                   | 251.50                                   | 270                         | 10                      | 85   | 154                | 210 | 255 | 5+                                     | 800 to GP-17 |
|                       | GP-17      | 1213.6                           | 1000                                    | 213.6  | 998.70                                    | 214.89                                   | 240                         | 10                      | 55   | 105                | 149 | 235 | 5+                                     | 916 to GP-18 |
| vs                    | GP-18      | 1110.7                           | 1000                                    | 110.7  | 960                                       | 151                                      | 120.9                       | 10                      | 38   | 58                 | 86  | 115 | 5+                                     | 906 to GP-2  |
| New Wells             | GP-19      | 1128.6                           | 1000                                    | 128.6  | 928                                       | 201                                      | 130                         | 10                      |      | 84                 |     | 116 | 5+                                     | 928 to GP-20 |
|                       | GP-20      | 1174.9                           | 1000                                    | 174.9  | 940                                       | 235                                      | 179                         | 60                      |      | 105                |     | 173 | 5+                                     | 909 to GP-21 |
|                       | GP-21      | 1217.9                           | 1000                                    | 217.9  | 989.97                                    | 227.92                                   | 240                         | 10                      |      | 90                 |     | 232 | 5+                                     | 949 to GP-22 |
|                       | GP-22      | 1324.0                           | 1000                                    | 324.0  | 1037.56                                   | 286.40                                   | 310                         | 50                      |      | 155                |     | 305 | 5+                                     | 753 to GP-23 |
|                       | GP-23      | 1231.6                           | 1100                                    | 131.6  | 1022                                      | 210                                      | 132.5                       | 35                      |      | 77                 |     | 132 | 5+                                     | 329 to GP-8  |
|                       | GP-24      | 1118.1                           | 1000                                    | 118.1  | 1058.13                                   | 60.0                                     | 72                          | 12                      |      | 40                 |     | 70  | 5+                                     | 965 to GP-25 |
|                       | GP-25      | 1210.9                           | 1000                                    | 210.9  | 1136.23                                   | 74.63                                    | 88                          | 14                      |      | 50                 |     | 80  | 5+                                     | 842 to GP-10 |



## Questions?