

# GORDON ENVIRONMENTAL/PSC

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**TO:** Robert Sanchez, Sandoval County Landfill

**cc:** George Schuman, Permit Section Manager, NMED Solid Waste Bureau

**FROM:** Mike Crepeau, P.E.; Gordon Environmental/PSC  
Braden Belliveau, EIT.; Gordon Environmental/PSC

**DATE:** May 2, 2018

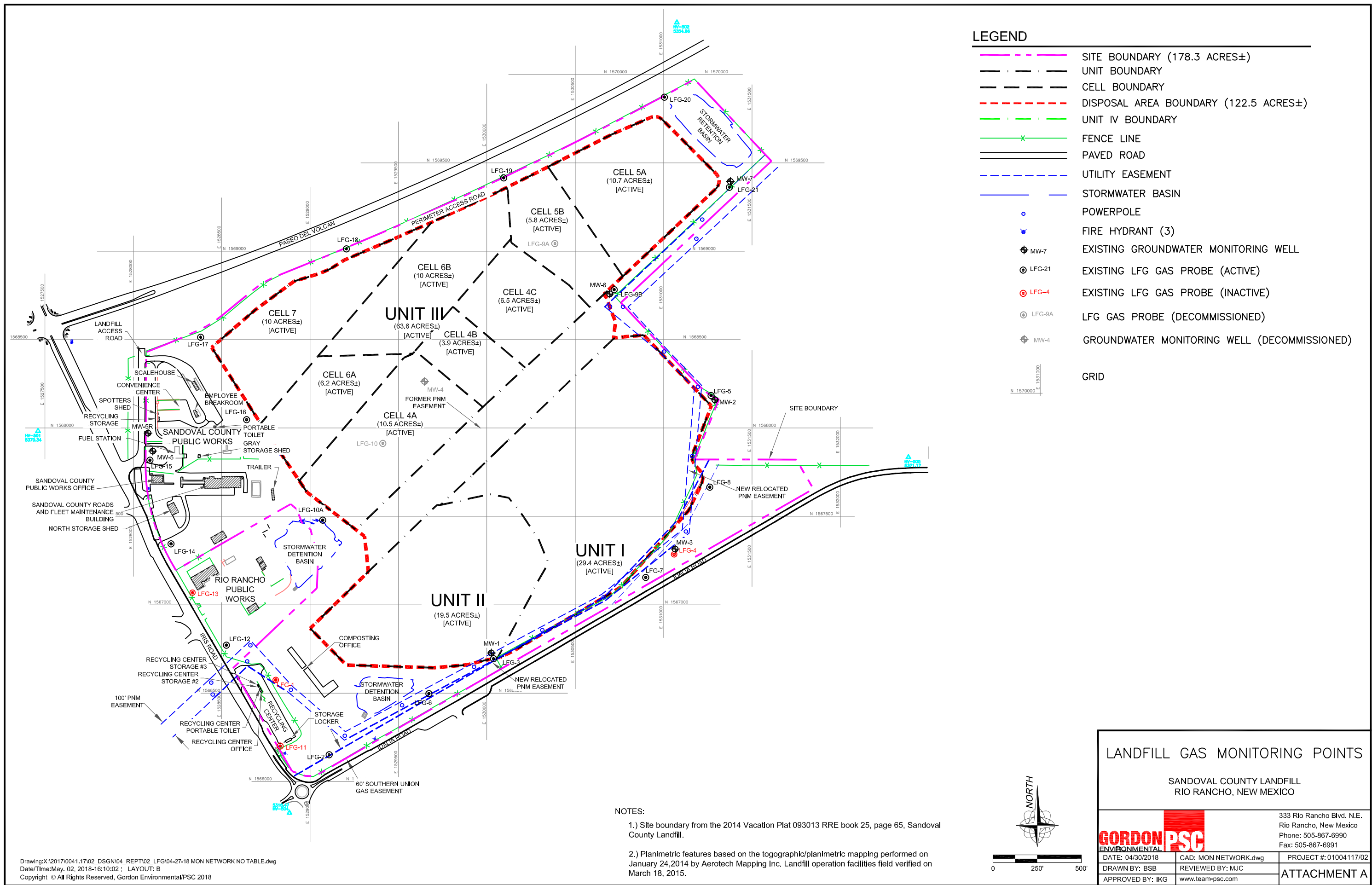
**SUBJECT:** Sandoval County Landfill:  
April 2018 Landfill Gas Monitoring Event [01004117/02]

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On April 27, 2018, Gordon Environmental/PSC performed quarterly landfill gas (LFG) monitoring at the Sandoval County Landfill (SCLF). Landfill gas measurements were recorded at the seventeen (17) active perimeter gas monitoring probes and sixteen (16) on-site structures shown on **Attachment A**. Monitoring results for this event are provided as **Attachment B**, and a copy of the field notes is included as **Attachment C**.

Monitoring was performed using a CES Landtec™ GEM-2000® portable gas analyzer to measure methane (CH<sub>4</sub>), oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>), and balance gas (typically nitrogen) in and around facility structures and in the perimeter probes. The GEM-2000® records gas measurements in terms of percent by volume in air; and was calibrated in the field prior to monitoring with 50% CH<sub>4</sub>, 35% CO<sub>2</sub>, and 4% O<sub>2</sub> calibration gases. Methane was not detected above the regulatory threshold of 25% of the lower explosive limit (LEL) for methane (1.25% by volume in air) at any of the monitoring locations. Methane was detected at a concentration of 0.1% by volume in air in LFG monitoring probe LFG-8. The detected values for carbon dioxide and oxygen are generally consistent with the results of previous monitoring events.

Landfill gas monitoring at the perimeter probes is accomplished by connecting the GEM-2000® to the quick-connect port atop the probe with flexible Teflon tubing. Monitoring within structures is performed by connecting a 3-foot-long fiberglass extension rod to the tubing. For each type of monitoring, the pump on the GEM-2000® was turned on and the instrument was allowed to operate for a minimum of 90 seconds before stabilized instrument readings were recorded.



# ATTACHMENT B

## LANDFILL GAS MONITORING FIELD LOG SANDOVAL COUNTY LANDFILL SANDOVAL COUNTY, NM

Monitoring Personnel: Braden Belliveau, Lidia Cepeda

Methane Monitoring Type: Dedicated Probe

Probe Depth: 30'

Monitoring Date: 4/27/2018

### Weather Information

Date and amount of last precipitation None

Temp: 54 °F

Wind Speed: 1-5 mph

Wind Direction: NE (observed at site)

Barometric Pressure: 30.3 (S) inches mercury (Hg)

Weather Conditions: Partly Cloudy

### Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 2000

Date and Time Last Calibrated: 04/27/18, 0851

### Permanent Landfill Gas Monitoring Probes

Monitoring Probe ID	Time of Measurement	CH <sub>4</sub> (% in air)	CO <sub>2</sub> (% in air)	O <sub>2</sub> (% in air)	Balance Gas (% in air)
LFG-2	1057	0	0.1	20.2	79.7
LFG-3	1109	0	0	20.1	79.9
LFG-5	1137	0	2.5	17.9	79.6
LFG-6	1103	0	0	20.3	79.7
LFG-7	1119	0	0.5	19.5	80.0
LFG-8	1124	0.1	0.2	19.9	79.8
LFG-9B	1146	0	0	20.0	80.0
LFG-10A	1012	0	0	20.3	79.7
LFG-12	1042	0	0.1	20.2	79.7
LFG-14	1003	0	0	20.3	79.7
LFG-15	0955	0	0.1	20.1	79.8
LFG-16	1212	0	0	20.0	80.0
LFG-17	1207	0	0	19.6	80.4
LFG-18	1203	0	0	19.9	80.1
LFG-19	1159	0	0	19.7	80.3
LFG-20	1155	0	0	19.4	80.6
LFG-21	1150	0	0	19.9	80.1

### Landfill Structures

Scalehouse (ticket office)	0901	0	0	20.8	79.2
Scalehouse (supervisor's office)	0904	0	0	20.8	79.2
Employee Breakroom	0913	0	0	20.7	79.3
Spotter's Shed	0918	0	0	20.6	79.4
Recycling Storage	0921	0	0	20.6	79.4
Portable Toilet	0926	0	0	20.5	79.5
Gray Storage Shed	0930	0	0	20.4	79.6
Composting Office	1049	0	0	20.4	79.6
Public Works Dept. Admin.	0948	0	0	20.4	79.6
Roads & Fleet Maintenance Bldg.	0937	0	0	20.5	79.5
Trailer	0941	0	0	20.5	79.5
North Storage Shed	1216	0	0	20.0	80.0
Recycling Center Office	1028	0	0	20.5	79.5
Storage Locker	1033	0	0	20.5	79.5
Recycling Center Storage #2	1022	0	0	20.4	79.6
Recycling Center Storage #3	1020	0	0	20.4	79.6
Recycling Center Portable Toilet	1026	0	0	20.5	79.5

### Ambient Readings

Near Employee Lounge	0854	0	0	20.6	79.4
Near Employee Lounge	1221	0	0	20.2	79.8

Signature(s)

*Lidia Cepeda*  
*Braden Belliveau*

# ATTACHMENT C

## LANDFILL GAS MONITORING FIELD LOG SANDOVAL COUNTY LANDFILL SANDOVAL COUNTY, NM

Monitoring Personnel: BSR/LC  
Methane Monitoring Type: Dedicated Probe  
Probe Depth: 30'  
Monitoring Date: 04/27/18

### Weather Information

Date and amount of last precipitation: None  
Temp: 54 °F  
Wind Speed: 1-5 mph  
Wind Direction: NE (observed at site)  
Barometric Pressure: 20.3 (5) inches mercury (Hg)  
Weather Conditions: Partly Cloudy

### Equipment Information

Monitoring Equipment Used: CES-LandTec™ GEM 2000

Date and Time Last Calibrated: 0851, 04/27/2018

### Permanent Landfill Gas Monitoring Probes

Monitoring Probe ID	Time of Measurement	CH <sub>4</sub> (% in air)	CO <sub>2</sub> (% in air)	O <sub>2</sub> (% in air)	Balance Gas (% in air)
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LFG-18	1203	0	0	19.9	80.1
LFG-19	1159	0	0	19.7	80.3
LFG-20	1155	0	0	19.4	80.6
LFG-21	1150	0	0	19.9	80.1

### Landfill Structures

Scalehouse (ticket office)	0901	0	0	20.8	79.2
Scalehouse (supervisor's office)	0904	0	0	20.8	79.2
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Signature(s):

*Lidia Cepeda*  
*LC*