Attachment G
Methane Zone Report

ESA

REPORT OF METHANE SOIL GAS INVESTIGATION
PROPOSED RESIDENTIAL DEVELOPMENT

1917- 2005 1/2 W. 3rd St., Los Angeles, CA 90057

Prepared for:

Miramar Development, LP

551 Fifth Avenue, 23rd Floor
New York, NY 10176

TERRA-PETRA ENVIRONMENTAL ENGINEERING
700 S Flower Street, Suite 2580
Los Angeles, California

July 13, 2020

Terra-Petra
ENVIRONMENTAL ENGINEERING
justin@terra-petra.com | terra-petra.com

Rev. July 13, 2020

Nicole Zaccack
Miramar Development, LP
551 Fifth Avenue, 23rd Floor
New York, NY 10176
O: 917.542.3618
F: 917.542.3601
E: nzaccack@rosecompanies.com

Subject: **Report of Methane Soil Gas Testing**
Proposed Mixed-Use Development
1917- 2005 ½ W 3rd St., Los Angeles, CA 90057
Tract: Extension of Nob Hill Tract, Block: None, Lot: 1, 2, 3, 4, 5, 6

Terra-Petra is pleased to submit this report to summarize the methane soil gas investigation services conducted at the subject site referenced above. The purpose of this investigation was to determine the methane soil gas mitigation requirements, in connection with the proposed development. The project site has been determined to be located within a City of Los Angeles Designated Methane Zone (See **Exhibit 1, Site Location Map**).

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared for Jonathan Rose Companies and any pertinent consultants to be used solely for the design of the proposed project. This report has not been prepared for use by other parties, and may not contain sufficient information for purposes of other parties or other uses.

PROJECT INFORMATION

Terra-Petra was contracted to perform a soil gas investigation at the approximately 30,432 sq. ft. project site under our LADBS Testing License #10224. The proposed development will consist of the construction of a new building having a basement and seven stories above grade. The building footprint is approximately 15,000 SF. The purpose of this investigation was to detect the presence of any elevated levels of methane gas in the in-situ soils underlying the foundation of the proposed structure.

SOIL GAS PROBE INSTALLATION & TESTING

The methane soil gas testing at the site was performed based on the procedures conforming to the Los Angeles Department of Building and Safety (LADBS) Information Bulletin Ref. No. LABC 7104.1, P/BC 2014-101. City guidelines require that one shallow-depth probe, at a depth of not less than 4 feet below ground surface, be installed for every 10,000 square feet of site area where the highest concentration of soil gas is most likely to be found. A minimum of two shallow-depth probes are required per project site. A total of seven (7) shallow probe locations were selected based on the total site testing area of 30,432 sq. ft. (See **Exhibit 2, Probe Locations Map**). Predicated on the soil gas testing results at the shallow probes, an additional four (4) deep gas probe locations were selected. City guidelines require one deep-depth gas probe for every 20,000 square feet or at a minimum of two gas probe sets regardless of area. Each deep-depth gas probe set shall consist of three probes, installed at approximate sampling depths of 5 feet, 10 feet and 20 feet below the elevation of the lowest building slab or footing.

On 5/18/20 shallow borings were drilled using a 3.25-inch diameter hand-auger. Shallow borings were drilled to a depth of 4 feet, with gas probes installed at approximately 4 ft bsg. On 5/19/20 deep-probe borings were drilled using a direct-push GeoProbe 5410. Terra-Petra was obligated by City guidelines to attempt to install the deepest soil gas probes a minimum of 20 ft below the lowest level of the proposed building.

As such, the deepest gas probes were set at 20 ft bsg in DP-1, DP-2, DP-3, and DP-4. Nested gas probes were also set at 5 ft and 10 ft in each of the deep borings. Gas probes were constructed as shown in **Exhibit 3, Probe Construction Diagrams**. Groundwater was not encountered in any of the soil borings during the course of the investigation and the historic groundwater level at the site is unknown.

The current investigation was performed in accordance with LADBS standards. Soil gas samples were collected during two rounds of monitoring on 5/19/20 and 5/20/20 from each of the probes. Each sampling period was separated by a minimum time period of 24 hours. As required by the LADBS, all probes were monitored for detectable combustible gas and soil gas pressures using a calibrated CES/Landtec GEM 5000 portable 4-gas detector with a lower limit for reporting methane levels of 1,000 ppmv (parts per million by volume). The results of the soil gas testing measurements are presented in the attached **Exhibit 4: Field Data Sheets.**

TEST RESULTS

Methane soil gas was measured at elevated levels for the Landtec GEM 5000 portable 4-gas detector in two deep gas probes during both days of monitoring. Due to the detection in our field instruments we were obligated to collect samples and submit them to a City of Los Angeles registered methane testing laboratory for 3rd party verification. The results of the soil gas testing measurements and 3rd party lab verification were recorded in an approved format as presented in the attached **Exhibit 5: Form 01 – Certificate of Compliance for Methane Test Data** and **Exhibit 6: Registered Methane Testing Laboratory results.**

CONCLUSIONS

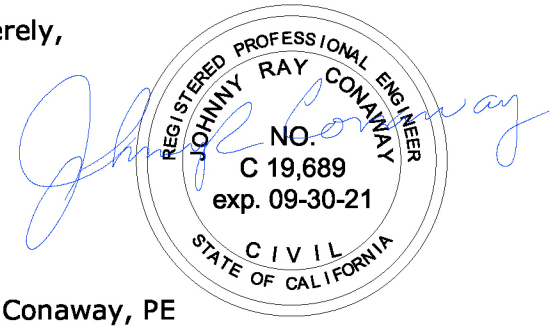
Methane gas is combustible with a lower explosive limit (LEL) of approximately 5%,v/v in air. In structures, regulatory agencies commonly consider methane concentrations above 25% of the LEL (1.25%,v/v) to be action levels above which gas concentrations must be mitigated. The City of Los Angeles Department of Building and Safety considers methane soil gas concentrations at 0.0%,v/v to be the action level at which soil gas concentrations must be mitigated for buildings to be constructed in a methane zone. For the methane buffer zone, this same action level applies only if the water column pressure is greater than 2 inches.

LEVEL V: Due to the elevated methane concentrations detected on the site (which were confirmed through laboratory analysis), we recommend that the methane mitigation measures for the proposed structure adhere to design requirements for a **Methane Zone – Level V, All Pressures** design. As such, we would typically recommend that the mitigation system incorporate all components listed for a Design Level V on the attached **Table 1A**, including: an active sub-slab vent system with an impervious methane/waterproofing membrane, perforated collection pipes, 4" gravel blanket/thickness surrounding the pipes, vent risers with mechanical extraction, electrical seal-offs on dry utility lines and trench dams at utility trenches. In addition, a methane gas detection system incorporating gas sensors and alarms shall be required.

DWP: Please note based on the City of Los Angeles Department of Water and Power issued Guidelines for Underground Electrical Distribution Construction in Areas where Soil Gas is Present Requirements for Vaults and Maintenance Holes for this site may be as follows: Coating Structures with Zebron or Equal (Impermeable Gas Membrane), 60 mil HDPE Membrane Under Structures, Casting Restraining System, 4 Architectural Stand Pipes per Structure, Waterproofing grout around ground rods, blank duct plugs in all conduits in the structures. Other General Requirements include: Metal grating access cover for pad-mounts, Surface Mounted Pull Box for Small Services, Outside Pull Sections for Customer's Switchboard, Trench Dam for direct buried conduit every 300' and 5' concrete anchor next to any Underground Structure.

I am a registered California civil engineer with experience in methane gas mitigation systems. Should you have any questions regarding this report, please contact Justin Conaway at 213-458-0494. We appreciate the opportunity to assist you with your project.

Sincerely,

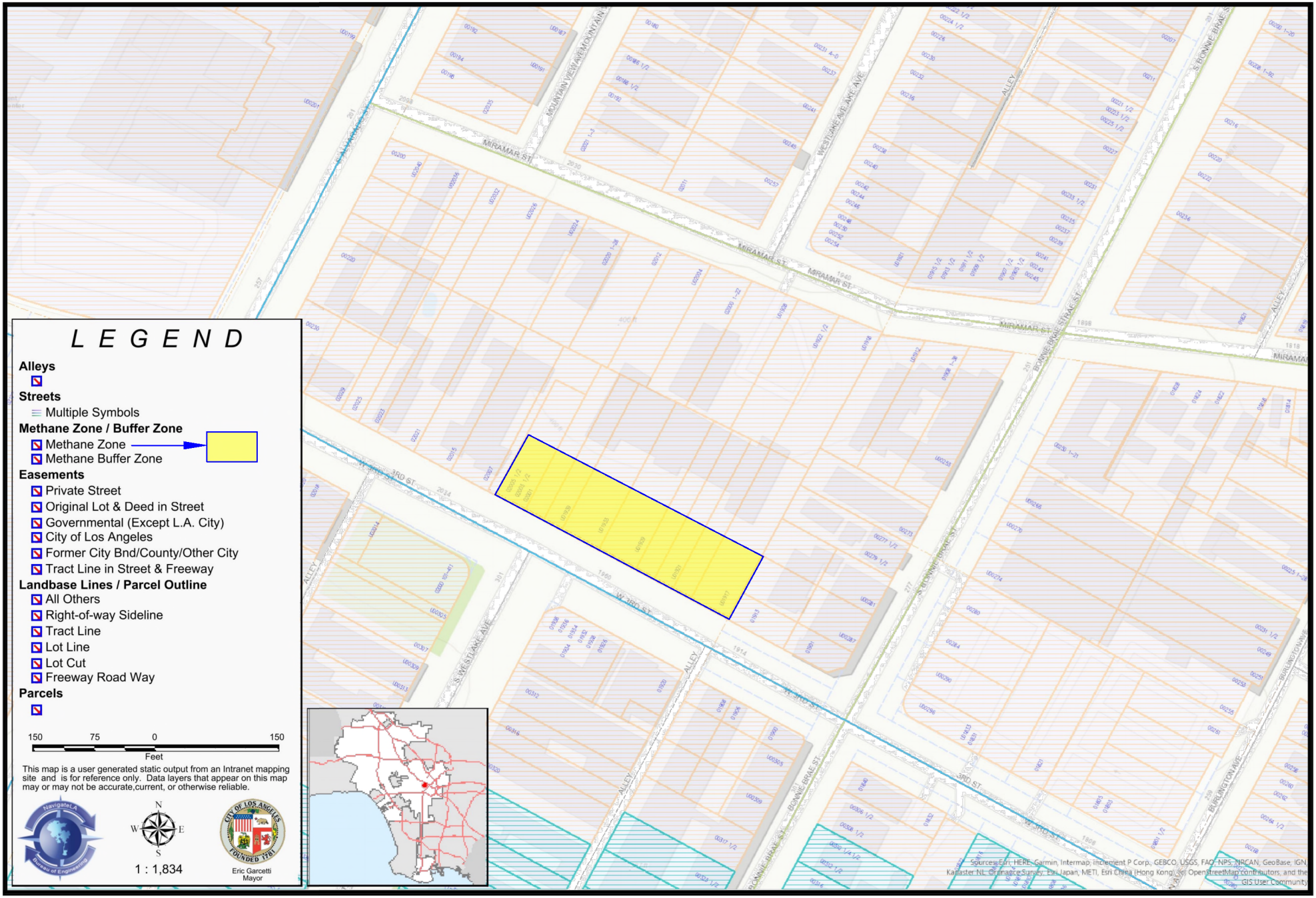


John Conaway, PE
Terra-Petra
LADBS License #10224

Attachments
Exhibit 1: Site Location Map
Exhibit 2: Probe Locations Map
Exhibit 3: Probe Construction Diagrams
Exhibit 4: Field Data Sheets
Exhibit 5: Form 01 – Certificate of Compliance for Methane Test Data
Exhibit 6: Registered Methane Testing Laboratory results
Exhibit 7: Mitigation Strategy

Exhibit 1:
Site Location Map

NavigateLA Map



L E G E N D

Alleys

Streets

- Multiple Symbols

Methane Zone / Buffer Zone

- Methane Zone
- Methane Buffer Zone

Easements

- Private Street
- Original Lot & Deed in Street
- Governmental (Except L.A. City)
- City of Los Angeles
- Former City Bnd/County/Other City
- Tract Line in Street & Freeway

Landbase Lines / Parcel Outline

- All Others
- Right-of-way Sideline
- Tract Line
- Lot Line
- Lot Cut
- Freeway Road Way

Parcels

150 75 0 150

Feet

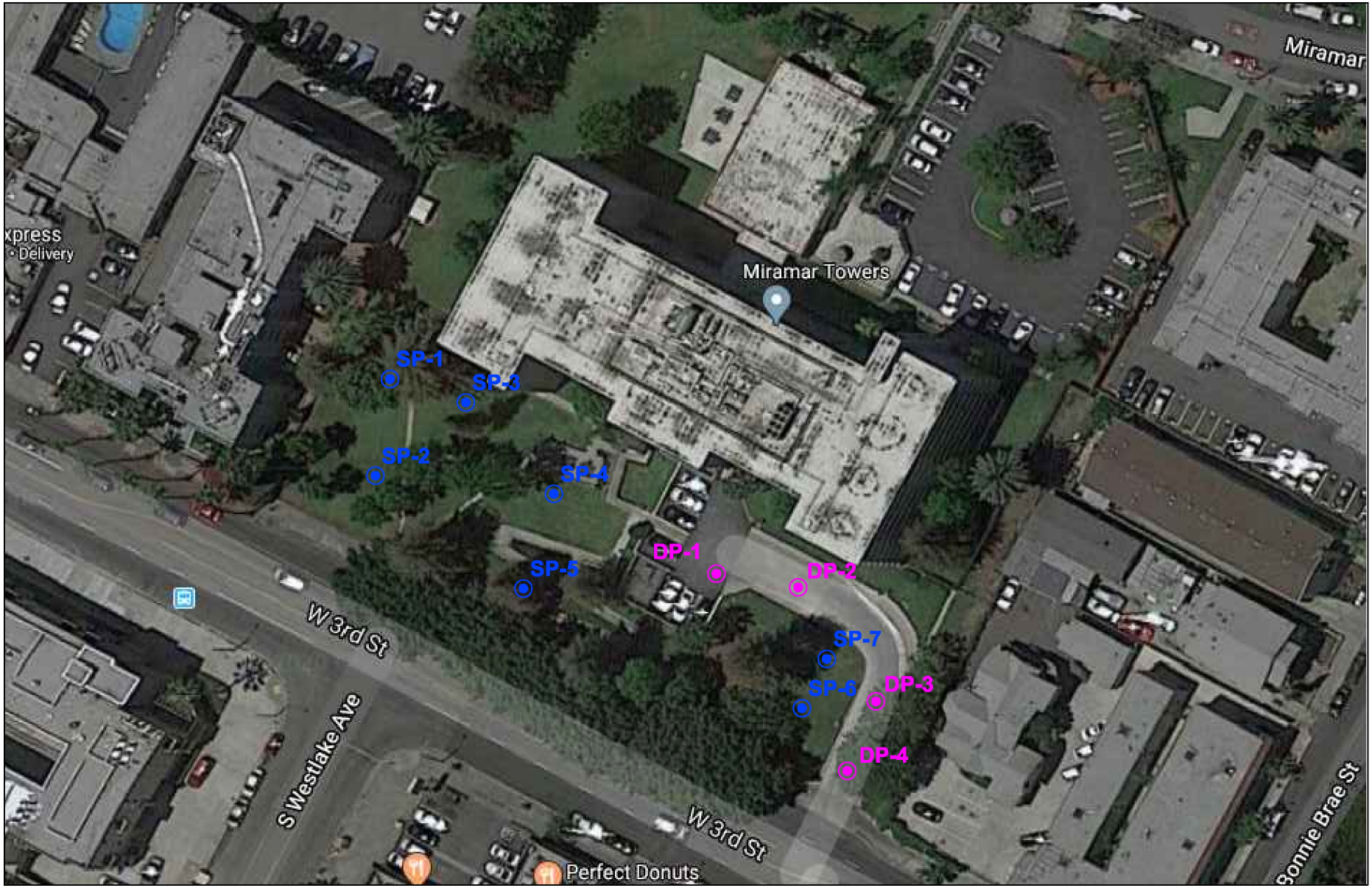
This map is a user generated static output from an Intranet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate,current, or otherwise reliable.

N W E S

1 : 1,834

Eric Garcetti
Mayor

Exhibit 2:
Probe Locations Map



LEGEND

SP-2 ◉ SHALLOW PROBE LOCATION

DP-2 ◉ DEEP PROBE LOCATION

1917-2005 WEST THIRD STREET,
LOS ANGELES, CA 90057

0' 5' 10' 20'

SCALE: 1" =20'

EXHIBIT: 2

TITLE: PROBE LOCATIONS

DRAWN BY: R. McCLANAHAN

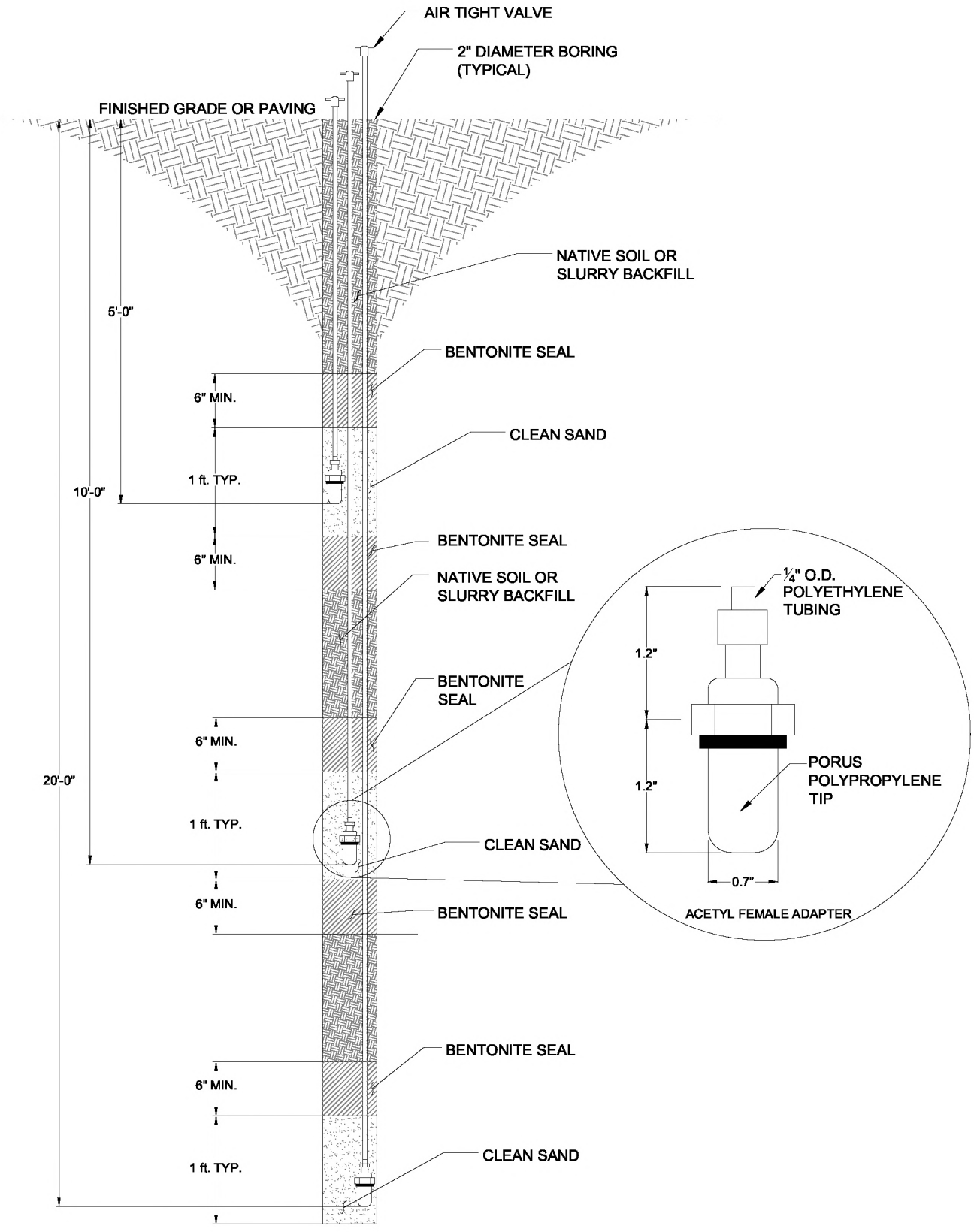
DATE: MAY 19, 2020

CHECKED BY:

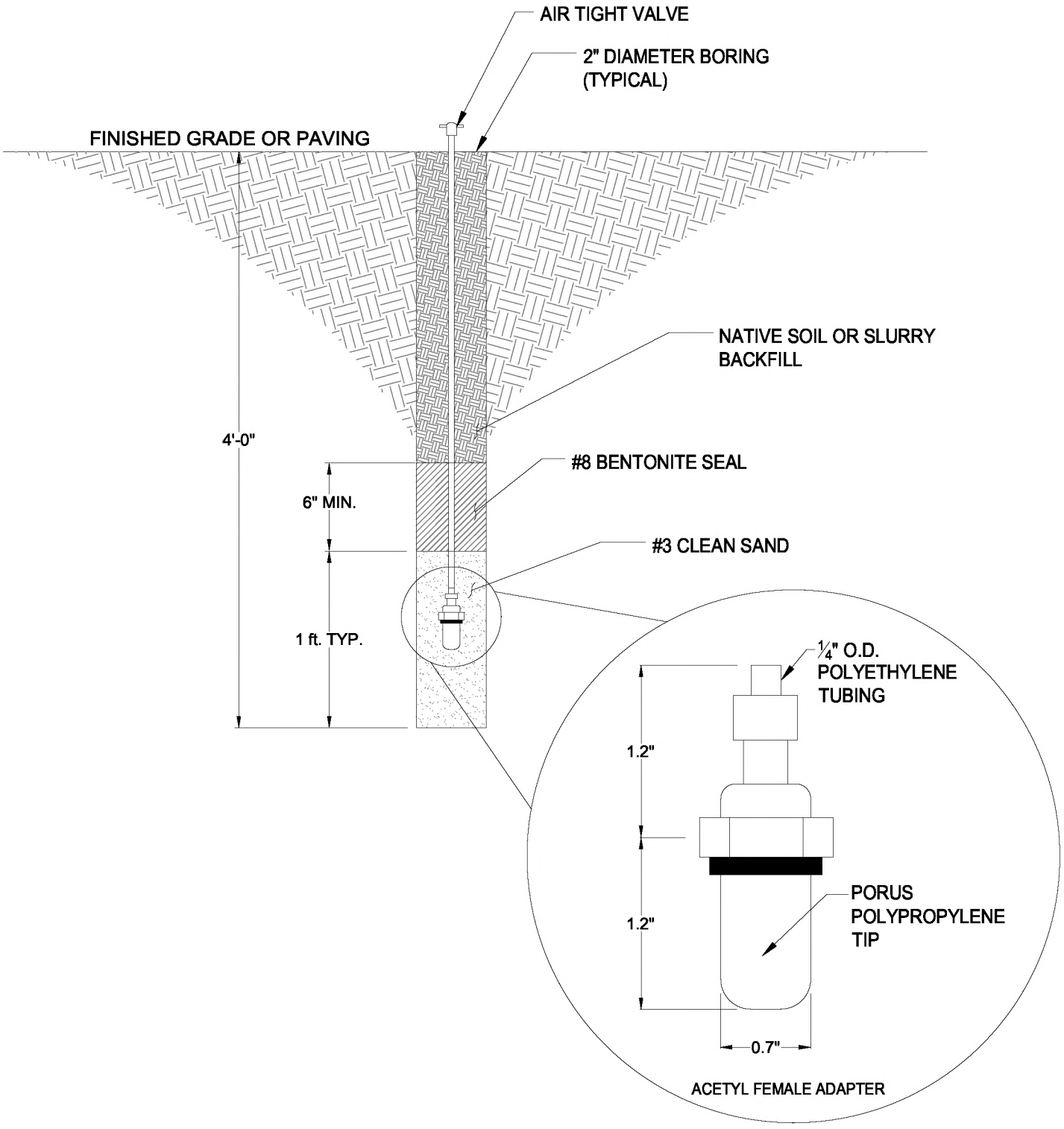
ADDRESS: 1917-2005 WEST THIRD STREET, LOS ANGELES, CA 90057

Terra-Petra
ENVIRONMENTAL ENGINEERING
700 S. Flower St., Ste. 2580, Los Angeles, CA 90017 213.458.0494
Los Angeles (HQ) · San Francisco · New York · Denver · Tacoma

Exhibit 3:
Probe Construction Diagrams



ADDRESS:	TITLE:	SHEET:
1917-2005 WEST THIRD STREET, LOS ANGELES, CA 90057	CONSTRUCTION DIAGRAM FOR DEEP PROBE AT 5', 10' AND 20'	3
	DRAWN BY: R. McCLANAHAN	DATE: MAY 19, 2020
	CHECKED BY:	



ADDRESS:	TITLE:	SHEET:
1917-2005 WEST THIRD STREET, LOS ANGELES, CA 90057	CONSTRUCTION DIAGRAM FOR SHALLOW PROBE AT 4'	3
	DRAWN BY: R. McCLANAHAN	DATE: MAY 19, 2020
	CHECKED BY:	

Exhibit 4:
Field Data Sheets

Soil Gas Investigation Spreadsheet

Site Location:		**1917- 2005 W. 3rd St., Los Angeles, CA (90057).**								
Date:		**5/18/20**								
Time:		**0800hr.**								
Weather conditions:		**Cloudy, warm, still, rain.**								
Instrument:		**Landtec GEM 5000.**								
Barometric Pressure:		**29.52 "Hg**								
Drilling Method:		**3.25-inch diameter hand-auger.**								
		Probe Press.	**Methane***		**CO_2**	**O_2**	**N_2**			
Probe No.	**Depth**	**(in-H20)**	**(%v/v)**		**(%v/v)**	**(%v/v)**	**(%v/v)**	**Comments:**		
SP-1	**4.0**	**0.00**	**ND**		**2.1**	**20.0**	**Bal.**			
SP-2	**4.0**	**0.00**	**ND**		**1.9**	**19.4**	**Bal.**			
SP-3	**4.0**	**0.01**	**ND**		**2.4**	**18.9**	**Bal.**			
SP-4	**4.0**	**0.01**	**ND**		**1.4**	**20.1**	**Bal.**			
SP-5	**4.0**	**0.00**	**ND**		**1.3**	**20.0**	**Bal.**			
SP-6	**4.0**	**0.00**	**ND**		**2.2**	**19.7**	**Bal.**			
SP-7	**4.0**	**0.02**	**ND**		**1.8**	**19.8**	**Bal.**			
(Note: ND = Not Detected. *All gas quality measurements taken with in-line carbon filter.)										

DL SCIENCE, INC.
532 W. Maple Avenue
El Segundo. CA 90245
tel. (310) 416-1472
dllucero@sbcglobal.net

Soil Gas Investigation Spreadsheet

Site Location:		**1917- 2005 W. 3rd St., Los Angeles, CA (90057).**								
Date:		**5/19/20**								
Time:		**0800hr.**								
Weather conditions:		**Cloudy, warm, still, moderately humid.**								
Instrument:		**Landtec GEM 5000.**								
Barometric Pressure:		**29.51 "Hg**								
Drilling Method:		**Direct-push GeoProbe 5410.**								
		Probe Press.	**Methane***		**CO_2**	**O_2**	**N_2**			
Probe No.	**Depth**	**(in-H20)**	**(%v/v)**		**(%v/v)**	**(%v/v)**	**(%v/v)**	**Comments:**		
DP-1	**5.0**	**0.01**	**ND**		**4.3**	**15.0**	**Bal.**			
	10.0	**0.01**	**ND**		**4.7**	**12.3**	**Bal.**			
	20.0	**0.00**	**ND**		**8.9**	**8.5**	**Bal.**			
DP-2	**5.0**	**0.01**	**0.7**		**5.4**	**4.0**	**Bal.**			
	10.0	**0.00**	**1.0**		**6.5**	**3.8**	**Bal.**			
	20.0	**0.00**	**5.0**		**8.9**	**2.2**	**Bal.**			
DP-3	**5.0**	**0.02**	**ND**		**0.4**	**18.9**	**Bal.**			
	10.0	**0.02**	**ND**		**0.6**	**19.4**	**Bal.**			
	20.0	**0.01**	**ND**		**1.6**	**16.2**	**Bal.**			
DP-4	**5.0**	**0.00**	**5.5**		**0.3**	**7.6**	**Bal.**			
	10.0	**0.01**	**4.4**		**0.4**	**6.5**	**Bal.**			
	20.0	**0.00**	**2.4**		**0.3**	**1.5**	**Bal.**			
(Note: ND = Not Detected. *All gas quality measurements taken with in-line carbon filter.)										

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Soil Gas Investigation Spreadsheet

Site Location:		**1917- 2005 W. 3rd St., Los Angeles, CA (90057).**								
Date:		**5/20/20**								
Time:		**0800hr.**								
Weather conditions:		**Cloudy, warm, still, moderately humid.**								
Instrument:		**Landtec GEM 5000.**								
Barometric Pressure:		**29.63 "Hg**								
Drilling Method:		**Direct-push GeoProbe 5410.**								
		Probe Press.	**Methane***		**CO_2**	**O_2**	**N_2**			
Probe No.	**Depth**	**(in-H20)**	**(%v/v)**		**(%v/v)**	**(%v/v)**	**(%v/v)**	**Comments:**		
DP-1	**5.0**	**0.02**	**ND**		**7.5**	**3.2**	**Bal.**			
	10.0	**0.01**	**ND**		**8.5**	**3.1**	**Bal.**			
	20.0	**0.01**	**ND**		**13.1**	**3.0**	**Bal.**			
DP-2	**5.0**	**0.00**	**ND**		**8.1**	**4.8**	**Bal.**			
	10.0	**0.00**	**0.1**		**15.3**	**0.6**	**Bal.**			
	20.0	**0.01**	**3.9**		**14.4**	**0.3**	**Bal.**	**Sampled.**		
DP-3	**5.0**	**0.01**	**ND**		**4.2**	**3.3**	**Bal.**			
	10.0	**0.01**	**ND**		**3.3**	**3.0**	**Bal.**			
	20.0	**0.00**	**ND**		**8.1**	**2.2**	**Bal.**			
DP-4	**5.0**	**0.00**	**93.3**		**0.2**	**6.6**	**Bal.**			
	10.0	**0.00**	**74.2**		**0.2**	**3.5**	**Bal.**	**Sampled.**		
	20.0	**0.00**	**0.4**		**0.2**	**8.5**	**Bal.**			
(Note: ND = Not Detected. *All gas quality measurements taken with in-line carbon filter.)										

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Exhibit 5:
Form 01 Certificate of Compliance for Methane Test Data

FORM 1 - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 1: Certification Sheet

Site Address: 1917- 2005 W. 3rd St., Los Angeles, CA 90057

Legal Description: Tract: Extension of Nob Hill Tract Lot: 1,2,3,4,5, Block: none

Building Use: Mixed-Use Development

Name of Architect, Engineer, or Geologist:
John Conaway

Mailing Address:
700 S Flower St., Suite 2580
Los Angeles CA 90017

Telephone: 213.458.0494

Name of Testing Laboratory:
Terra-Petra

City Test Lab License #: 10224

Telephone: 213.458.0494

Architect's, Engineer's or Geologist's Stamp:

I hereby certify that I have tested the above site for the purpose of methane mitigation and that all procedures were conducted by a City of Los Angeles licensed testing agency in conformity with the requirements of the LADBS Information Bulletin P/BC 2002-101. Where the inspection and testing of all or part of the work above is delegated, full responsibility shall be assumed by the architect, engineer or geologist whose signature is affixed thereon.

Signed: John C Conaway date May 28, 2020

Required Data:

- Project is in the (Methane Zone) or (~~Methane Buffer Zone~~).
- Depth of ground water observed during testing: _____ feet below the Impervious Membrane.
- Depth of Historical High Ground Water Table Elevation*: UKN feet below the Impervious Membrane.
- Design Methane Concentration**: >12,500 parts per million in volume (ppmv).
- Design Methane Pressure***: All Pressure inches of water column.
- Site Design Level: (~~Level I, Level II, Level III, Level IV~~, Level V) with All Pressure inches of water column.

De-watering:

- De-watering (~~is~~) (is not) required per Section 91.7104.3.7.
- Pump discharge rate _____ cubic feet per minute per reference geology or soil report: _____ dated _____.

Additional Investigation:

- Additional investigation ~~(was)~~ (was not) conducted.

Latest Grading on Site:

- Date of last grading on site (was) (~~was not~~) more than 30 days before Site Testing.
- See Attached explanation of the effect on soil gas survey results by grading operations.

Notes:

* Historical High Ground Water Table Elevation shall mean the highest recorded elevation of ground water table based on historical records and field investigations as determined by the engineer for the methane mitigation system.

** Design Methane Concentration shall mean the highest recorded measured methane concentration from either Shallow Soil Gas Test or any Gas Probe Set on the site.

*** Design Methane Pressure shall mean the highest total pressure measured from any Gas Probe Set on the site.

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: 1917- 2005 W. 3rd St., Los Angeles, CA 90057

Description of Gas Analysis Instrument(s): Infra Red
Instrument Name and Model: LAND TEC Gem 5000 Instrument Accuracy: ± 1,000 ppmv.
City of Los Angeles Testing License #: 10224

Date	Time	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
						SEE SITE PLAN FOR PROBE LOCATIONS
5/18/20	08:00	SP-1	ND*	0.00	4.0	
" "	" "	SP-2	ND*	0.00	4.0	
" "	" "	SP-3	ND*	0.01	4.0	
" "	" "	SP-4	ND*	0.01	4.0	
" "	" "	SP-5	ND*	0.00	4.0	
" "	" "	SP-6	ND*	0.00	4.0	
" "	" "	SP-7	ND*	0.02	4.0	
5/19/20	08:00	DP-1	ND*	0.01	5.0	
" "	" "	" "	ND*	0.01	10.0	
" "	" "	" "	ND*	0.00	20.0	
" "	" "	DP-2	7,000	0.01	5.0	
" "	" "	" "	10,000	0.00	10.0	
" "	" "	" "	50,000	0.00	20.0	
" "	" "	DP-3	ND*	0.02	5.0	
" "	" "	" "	ND*	0.02	10.0	
" "	" "	" "	ND*	0.01	20.0	
" "	" "	DP-4	55,000	0.00	5.0	
" "	" "	" "	44,000	0.01	10.0	
" "	" "	" "	24,000	0.00	20.0	

*ND = NON DETECT
** All measurements taken with inline carbon filter.

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: 1917- 2005 W. 3rd St., Los Angeles, CA 90057

Description of Gas Analysis Instrument(s): Infra Red

Instrument Name and Model: LAND TEC Gem 5000 Instrument Accuracy: ± 1,000 ppmv.

City of Los Angeles Testing License #: 10224

Date	Time	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
						SEE SITE PLAN FOR PROBE LOCATIONS
5/20/20	08:00	DP-1	ND*	0.02	5.0	
" "	" "	" "	ND*	0.01	10.0	
" "	" "	" "	ND*	0.01	20.0	
" "	" "	DP-2	ND*	0.00	5.0	
" "	" "	" "	1,000	0.00	10.0	
" "	" "	" "	39,000	0.01	20.0	Sampled
" "	" "	DP-3	ND*	0.01	5.0	
" "	" "	" "	ND*	0.01	10.0	
" "	" "	" "	ND*	0.00	20.0	
" "	" "	DP-4	933,000	0.00	5.0	
" "	" "	" "	742,000	0.00	10.0	Sampled
" "	" "	" "	4,000	0.00	20.0	

*ND = NON DETECT

** All measurements taken with inline carbon filter.

Table 1A - MITIGATION REQUIREMENTS FOR METHANE ZONE (See notes)

1917-2005 WEST THIRD STREET

Site Design Level			Level I		Level II		Level III		Level IV		Level V
Design Methane Concentration (ppmv)			0 - 100		101 - 1,000		1,001 - 5,000		5,001 - 12,500		> 12,500
Design Methane Pressure (See note 1) (inches of water column)			≤ 2"	> 2"	≤ 2"	> 2"	≤ 2"	> 2"	≤ 2"	> 2"	All Pressure
PASSIVE SYSTEM	De-watering System		X	X	X	X	X	X	X	X	X
	Sub-Slab Vent System	Perforated Horizontal Pipes	X	X	X	X	X	X	X	X	X
		Gravel Blanket Thickness Under Impervious Membrane	2"	2"	2"	3"	2"	3"	2"	4"	4"
		Gravel Thickness Surrounding Perforated Horizontal Pipes	2"	2"	2"	3"	2"	3"	2"	4"	4"
		Vent Risers	X	X	X	X	X	X	X	X	X
	Impervious Membrane		X	X	X	X	X	X	X	X	X
ACTIVE SYSTEM	Sub-Slab System	Mechanical Extraction System (See note 2)								X	X
	Lowest Occupied Space System	Gas Detection System (See note 3)		X		X	X	X	X	X	X
		Mechanical Ventilation (See notes 3, 4, 5)		X		X	X	X	X	X	X
		Alarm System		X		X	X	X	X	X	X
	Control Panel			X		X	X	X	X	X	X
MISC. SYSTEM	Trench Dam		X	X	X	X	X	X	X	X	X
	Conduit or Cable Seal Fitting		X	X	X	X	X	X	X	X	X
	Additional Vent Risers (See note 5)										X

NOTES FOR TABLES 1A AND 1B:

"x" = Indicates a required mitigation component

1. De-watering is not required when the maximum Historical High Ground Water Table Elevation, or projecterd post-construction ground water level, is more than 12 inches below the bottom of the Perforated Horizontal Pipes.
2. The Mechanical Extraction System shall be capabale of providing an equivalent of a complete change of air 20 minutes of the total volume of the Gravel Blanket.
3. The mechanical ventilation system shall be capable of providing an equivalent of one complete change of the lowest occupied space every 15 minutes.
4. Vent openings to comply with Item IV.B.4 on sheet 1 may be used in lieu of mechanical ventilation.
5. The total quantity of the installed Vent Risers shall be increased to twice the rate for the Passive System.

Exhibit 6:
Registered Methane Testing Laboratory Results

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-28769-1
Client Project/Site: 3rd St., Los Angeles

For:
Terra-Petra Environmental Engineering
700 South Flower Street
Suite 2580
Los Angeles, California 90017-4123

Attn: David L Lucero

Authorized for release by:
5/26/2020 2:36:07 PM

Sandy Tat, Project Manager I
(714)895-5494
sandytat@eurofinsus.com

Table of Contents

Case Narrative

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Job ID: 570-28769-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-28769-1

Comments
No additional comments.

Receipt
The samples were received on 5/20/2020 8:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 22.0° C.

Air Toxics
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-28769-1	DP-2@20'	Air	05/20/20 07:15	05/20/20 08:55	
570-28769-2	DP-4@10'	Air	05/20/20 07:00	05/20/20 08:55	

Client Sample Results

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Method: D2820 - C1 - C6 Hydrocarbons (GC) - DL

Client Sample ID: DP-2@20'
Date Collected: 05/20/20 07:15
Date Received: 05/20/20 08:55
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-28769-1
Matrix: Air

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methane	6300		2.4		ppm v/v			05/21/20 13:16	2

Client Sample ID: DP-4@10'
Date Collected: 05/20/20 07:00
Date Received: 05/20/20 08:55
Sample Container: Tedlar Bag 1L

Lab Sample ID: 570-28769-2
Matrix: Air

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methane	270000		96		ppm v/v			05/21/20 14:21	80

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Method: D2820 - C1 - C6 Hydrocarbons (GC)

Lab Sample ID: MB 570-70566/4
Matrix: Air
Analysis Batch: 70566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		1.2		ppm v/v			05/21/20 12:26	1

Lab Sample ID: LCS 570-70566/2
Matrix: Air
Analysis Batch: 70566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane			107	102.6		ppm v/v		96	80 - 120		

Lab Sample ID: LCSD 570-70566/3
Matrix: Air
Analysis Batch: 70566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane			107	102.5		ppm v/v		96	80 - 120	0	20

QC Association Summary

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Air - GC VOA

Analysis Batch: 70566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-28769-1 - DL	DP-2@20'	Total/NA	Air	D2820	
570-28769-2 - DL	DP-4@10'	Total/NA	Air	D2820	
MB 570-70566/4	Method Blank	Total/NA	Air	D2820	
LCS 570-70566/2	Lab Control Sample	Total/NA	Air	D2820	
LCSD 570-70566/3	Lab Control Sample Dup	Total/NA	Air	D2820	

Lab Chronicle

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Client Sample ID: DP-2@20'

Lab Sample ID: 570-28769-1

Date Collected: 05/20/20 07:15
Matrix: Air
Date Received: 05/20/20 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2820	DL	2	2 mL	2 mL	70566	05/21/20 13:16	WMI4	ECL 2
	Instrument ID: GC61									

Client Sample ID: DP-4@10'

Lab Sample ID: 570-28769-2

Date Collected: 05/20/20 07:00
Matrix: Air
Date Received: 05/20/20 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D2820	DL	80	2 mL	2 mL	70566	05/21/20 14:21	WMI4	ECL 2
	Instrument ID: GC61									

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method Summary

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Method	Method Description	Protocol	Laboratory
D2820	C1 - C6 Hydrocarbons (GC)	ASTM	ECL 2

Protocol References:

ASTM = ASTM International

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Definitions/Glossary

Client: Terra-Petra Environmental Engineering
Project/Site: 3rd St., Los Angeles

Job ID: 570-28769-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-28769 Chain of Custody

AIR CHAIN-OF-CUSTODY RECORD

DATE: 5/20/20
PAGE: 1 OF 1

LABORATORY CLIENT: TERRA-PETRA	CLIENT PROJECT NAME / NO.: 3RD ST., LOS ANGELES.
ADDRESS: 700 S. FLOWER ST. #2580	PROJECT CONTACT: DAVID L. LUCERO
CITY: LOS ANGELES STATE: CA ZIP: 90017	PROJECT ADDRESS: 1917-2005 W. 3RD ST.
TEL: (818)731-9644 E-MAIL: dllucero@sbcglobal.net	CITY: LOS ANGELES STATE: CA ZIP: 90057
P.O. NO.:	LAB CONTACT OR QUOTE NO.:
	SAMPLER(S): (PRINT) DL LUCERO

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD: ☐ COELT EDF ☐ OTHER

UNITS: ppmv

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: ASTM 2420 (Ethane)

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	MATRIX: Indoor (I) Soil Vap. (SV) Ambient (A)	SAMPLING EQUIPMENT: Media ID	Canister Size 6L or 1L	Flow Controller ID	START SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	STOP SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	ASTM 2420 (Ethane)
1	DP-2@20'		SV	1L Tedlar	1L	—	5/20/20	0715	—	—	—	—	X
2	DP-4@10'		SV	↓	1L	—	↓	0700	—	—	—	—	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 5/20/20	Time: 0855 hr
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

Login Sample Receipt Checklist

Client: Terra-Petra Environmental Engineering

Job Number: 570-28769-1

Login Number: 28769
List Number: 1
Creator: Cruise, Noel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	True	

Exhibit 7:
Mitigation Strategy

Mitigation Strategy

Subterranean basement area and slab on grade areas shall be constructed with an active sub-slab vent system with an impervious methane/waterproofing membrane below the slab, beneath elevator pits and at all subterranean walls. 4" dia. perforated collection pipes will be installed within a 4" gravel blanket. The pipes require a 4" thickness surrounding the pipes. Four 3" dia. cast iron vent risers shall be routed through the building to the roof. Vent risers will be fitted with a mechanical extraction fan activated by a methane gas detection sensor in the vent riser.

A methane gas detection system incorporating gas sensors and alarms will be installed throughout the lowest level basement within any enclosed spaces including at elevator pits and stairwells. The methane gas detectors shall tie into the lowest mechanical ventilation system so as to activate upon elevated readings to provide 4 air changes per hour within any enclosed rooms or spaces. Electrical seal-offs are required on all dry utility lines. Trench dams are required along the exterior of the building at utility trenches where they feed into the building.

In accordance with the Methane Hazard Mitigation Plan Section IV.B.2, slab on grade areas designed to be naturally ventilated shall be exempt from providing any of the above noted measures with the exception of electrical seal-offs and utility trench dams. Enclosed spaces within the naturally ventilated areas shall be designed to accommodate natural ventilation.