

APPENDIX F: METHANE REPORT

Methane Specialists,
Site Methane Investigation Report for New mixed-use complex with seven
subterranean levels 1000-1034 S. Hill Street / 220-226 W. Olympic Blvd.,
Los Angeles, CA - 90015,
April 21, 2017.

April 21, 2017
Job # J3405.r1

To: **ONNI Group,**
315 W 9th Street, Unit 801
Los Angeles, CA – 90015

Attn: **Mr. Mark Spector**

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Fax: **(323)-334-3374**
Cell: **(213)-905-0864**
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FAX: 805.987.3968

methanespecialists.com

Subj: **Site Methane Investigation Report for:**

New mixed-use complex with seven subterranean levels
1000–1034 S. Hill Street / 220-226 W. Olympic Blvd.,
Los Angeles, CA – 90015

Methane Specialists is pleased to submit this report with the results of our subsurface methane investigation for the project mentioned above. The purpose of the investigation was to measure subsurface soil gas concentrations and pressures of methane at the subject site to determine site-specific methane mitigation requirements prescribed by the City of Los Angeles Department of Building and Safety (Division 71 of the Los Angeles Building Code). This investigation was conducted in accordance with our proposal dated April 17, 2017.

Project Information

The Project proposes the construction of a new “**mixed use complex**” to be built with at least seven “**subterranean levels**”. The Project Site is on an approximately 50,600 square-foot parcel (1.16 acre), in the City of Los Angeles. Refusal was *met* in boring down to a minimum of approximately 22 feet, and a maximum of 28 feet, below surface grade, (bsg), for all *deep* probesets (DP-1, DP-2, and DP-3). Also, actual ground water was not *met* while drilling down to below a depth of at least 22 feet, bsg, also at deep probesets DP-1, DP-2, and DP-3. A geotechnical report *was* provided to us before the writing of this report. Therefore, the historical groundwater level is taken to be approximately greater than 110 feet, bsg. This would be approximately greater than 30 feet, below where an impermeable membrane *could* be required to be installed under the floor slab, at the lowest subterranean level.

The site is within an area which the City of Los Angeles designates as a *Methane Zone* (Source: *ZIMAS Parcel Profile Report (enclosed)*).

City of Los Angeles Methane Requirements

Requirements for control of methane intrusion in the City of Los Angeles are specified in Division 71 of Article 1, Chapter IX of the Los Angeles Municipal Code (“Division 71”). Since the project is within the *Methane Zone*, the Los Angeles Department of Building and Safety (LADBS) has the authority to withhold permits for construction unless detailed plans for adequate protection against methane intrusion are submitted, if testing leads to methane mitigation being required.

The level of methane protection required depends upon the “design methane concentration,” which is defined in Division 71 as “the highest concentration of methane gas found during site testing.” Site testing is required to determine the design concentration, unless the developer accepts the most stringent methane mitigation requirements (“Level V”). If site testing is performed (e.g., to document that a lower level of mitigation is justified), then it must follow a protocol published by the Department of Building and Safety, “Site Testing Standards for Methane” (P/BC 2002-101, November 30, 2004).

P/BC 2002-101 prescribes a three-step process for methane evaluation:

- (1) Scheduling site testing either before or 30 days after any site grading;
- (2) Conducting shallow soil gas tests (not less than 4 feet, bsg); and
- (3) Installing and using multiple-depth gas probe sets where the highest concentrations of soil gases are expected to be found

For the first step, site testing was scheduled for April 20, and 21, 2017. Methane Specialists also notified Underground Service Alert of Southern California to mark the site for underground utilities, and the utilities were subsequently marked and cleared.

For the second step, P/BC 2002-101 requires one shallow sampling location for every 10,000 square feet, or portion thereof, of site area, with a minimum of two shallow soil gas probe locations. Since the parcel area is approximately 50,600 square feet, six (6) *shallow* sampling locations were required.

The third step in the City’s methane evaluation process is to collect a minimum of two samples at multiple depths, and at least one multiple-depth probeset per every 20,000 square feet, or portion thereof. Thus, the minimum of three (3) multiple-depth *deep* gas probe *sets* were also required.

Shallow Soil Gas Probe Testing

City Guidelines require that one shallow-depth probe be installed for every 10,000 square feet of site area where the highest concentration of soil gas is most likely to be found, with a minimum of two shallow gas probes, regardless of the total area of the site. Since the total square footage of the parcel is approximately 50,600 square feet, Methane Specialists installed the required minimum of six (6) shallow methane probes at a depth of 4 feet bsg (see Probe Location Map).

The two shallow gas probes (SP-1 and SP-2) were drilled and installed, starting on April 20, 2017. Methane Specialists used a direct-push drill rig to hydraulically drive a 1.50-inch rod into the ground to a depth of approximately 4 feet, bsg. A ¼" polyethylene probe was then inserted into the boreholes. Approximately six inches of sand was placed in the boreholes, above and below the probe, to provide a sampling area. Bentonite was then added to the top of each of the boreholes. A hydrated bentonite plug was then placed above the bentonite, in each borehole, to form a seal. Methane Specialists recorded all the readings.

Shallow probe site testing was conducted on April 20, and 21, 2017.

Multiple-Depth Gas Probe Set Testing

City Guidelines also require that one multiple-depth deep probe set be installed for every 20,000 square feet of site area where the highest concentration of soil gas is most likely to be found, with a minimum of two multiple-depth deep gas probe sets, regardless of the total area of the site. Since the total area of the site is approximately 5,100 square feet, Methane Specialists drilled and installed the required three (3) multiple-depth *deep* probesets (DP-1, DP-2, and DP-3), also starting on April 20, 2017.

The multiple-depth deep probes were also installed using direct-push drilling equipment in the same manner as were the shallow gas probes. The deep probes were installed as triple-well clusters, down to greater than 22 feet, bsg, for DP-1, DP-2, and DP-3, where *refusal was met*, at either deep probe location. The *ground water level was not encountered* down to a depth greater than approximately 22 feet, bsg, of DP-1, DP-2, and DP-3. In all cases, at each probe depth, approximately twelve inches of sand was placed in the borehole around each of the probes. Each sand layer, of each probe, was separated by a layer of bentonite, between the sampling elevations. A hydrated, bentonite, plug was then placed onto the top of each borehole to form a seal.

Multiple-depth probe site testing was similarly conducted on April 20, and 21, 2017.

Sampling and Analysis

For field data sampling and analysis, Methane Specialists measured these probes for methane with a RKI Eagle portable, gas-sampling meter. The lower limit for *reporting* methane levels with the RKI Eagle is 500 ppmv (parts per million by volume).

The RKI Eagle was calibrated against standard calibrant samples by trained Methane Specialists staff members.

The probe pressures were all measured with a Dwyer Magnehelic Differential Pressure Gauge with a minimum scale division of 0.1 inch of water (H₂O).

Results of Shallow Gas Probe and Multiple-Depth Gas Probe Analysis

The attached Form 1 shows the results of the analysis of both the shallow, *and* the multiple, depth deep probe sets.

Recommendations

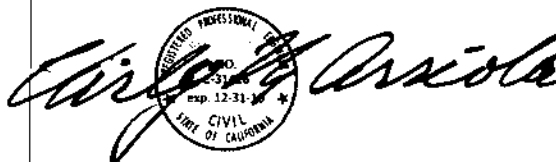
In summary, for this project located in the *Methane Zone*, detectable levels of methane *were* encountered while testing at this site. Thus, per Table 1A, for the *Methane Zone (enclosed)*, this project falls under Design Level *III*, with less than 2 inches of water-column gas-pressure. Therefore, as per said Methane Code Table 1A, this project *requires both passive and active methane mitigation systems.*

Disclaimer

All discussion in this report is based on information provided by the client, as well as data and conditions, as they existed at the time and date of testing at the site. Should any detail, or condition, change from that original information, then, re-consideration of the conclusions in this report could become justified. Methane Specialists cannot be held accountable for the consequences of relevant information which was not previously provided. Nor can Methane Specialists be held accountable for the consequences of changes in the project scope, or of project site conditions.

This report has been prepared for the sole use of the client, exclusively, for the completion of the subject project, alone. No other application, or interpretation, of this report is to be granted, or implied, or otherwise made, without first obtaining direct, written permission, exclusively from Methane Specialists.

Respectfully,
Methane Specialists



Kirby N. Arriola, P.E. (C-31416)

INDEX OF ENCLOSURES

PARCEL PROFILE REPORT

METHANE PROBE LOCATION MAP

TYPICAL METHANE PROBE SET DETAIL

FORM 1, PART 2 – TEST DATA

TABLE 1 –MITIGATION REQUIREMENTS

FORM 1, PART 1 – CERTIFIED RESULTS



City of Los Angeles Department of City Planning

3/21/2017

PARCEL PROFILE REPORT

PROPERTY ADDRESSES

1000 S HILL ST
1002 S HILL ST
1004 S HILL ST
1006 S HILL ST
1008 S HILL ST
1010 S HILL ST
1012 S HILL ST
1008 1/2 S HILL ST
1010 1/2 S HILL ST
1012 1/2 S HILL ST
1014 S HILL ST

ZIP CODES

90015

RECENT ACTIVITY

None

CASE NUMBERS

CPC-2017-432-CPU
CPC-2016-4710-TDR-MCUP-SPR
CPC-2010-213-CA
CPC-2008-4502-GPA
CPC-2008-4502-GPA
CPC-2005-361-CA
CPC-2005-1124-CA
CPC-2005-1122-CA
CPC-1994-225-CPU-ZC
CPC-1986-606-GPC
CPC-17168
ORD-83552
ORD-77161
ORD-164307-SA2645
ORD-137036
ORD-135901
ORD-129944
ORD-128690
VTT-74760
ENV-2017-433-EIR
ENV-2016-4711-EAF
ENV-2013-3392-CE
ENV-2010-214-ND
ENV-2008-4505-ND
ENV-2008-4505-ND
ENV-2005-362-CE
ENV-2005-1125-CE

Address/Legal Information

PIN Number 126A209 19
Lot/Parcel Area (Calculated) 6,685.4 (sq ft)
Thomas Brothers Grid PAGE 634 - GRID E5
Assessor Parcel No. (APN) 5139013015
Tract TR 1814
Map Reference M B 20-144
Block None
Lot A
Arb (Lot Cut Reference) None
Map Sheet 126A209

Jurisdictional Information

Community Plan Area Central City
Area Planning Commission Central
Neighborhood Council Downtown Los Angeles
Council District CD 14 - Jose Huizar
Census Tract # 2079.00
LADBS District Office Los Angeles Metro

Planning and Zoning Information

Special Notes None
Zoning [Q]R5-4D-O
Zoning Information (ZI) ZI-2452 Transit Priority Area in the City of Los Angeles
ZI-2385 Greater Downtown Housing Incentive Area
ZI-2374 LOS ANGELES STATE ENTERPRISE ZONE
General Plan Land Use High Density Residential
General Plan Footnote(s) Yes
Hillside Area (Zoning Code) No
Specific Plan Area None
Special Land Use / Zoning None
Design Review Board No
Historic Preservation Review No
Historic Preservation Overlay Zone None
Other Historic Designations None
Other Historic Survey Information None
Mills Act Contract None
CDO: Community Design Overlay None
CPIO: Community Plan Imp. Overlay None
District None
Subarea None
CUGU: Clean Up-Green Up None
NSO: Neighborhood Stabilization Overlay No
POD: Pedestrian Oriented Districts None
SN: Sign District No
Streetscape No
Adaptive Reuse Incentive Area Adaptive Reuse Incentive Areas
Ellis Act Property No
Rent Stabilization Ordinance (RSO) No

CRA - Community Redevelopment Agency	City Center Redevelopment Project
Central City Parking	Yes
Downtown Parking	Yes
Building Line	20
500 Ft School Zone	No
500 Ft Park Zone	No
Assessor Information	
Assessor Parcel No. (APN)	5139013015
APN Area (Co. Public Works)*	0.155 (ac)
Use Code	2700 - Commercial - Parking Lot (Commercial Use Property) - Lots - Patron or Employee - One Story
Assessed Land Val.	\$141,515
Assessed Improvement Val.	\$7,791
Last Owner Change	11/26/2014
Last Sale Amount	\$9
Tax Rate Area	13264
Deed Ref No. (City Clerk)	2639
Building 1	
Year Built	1972
Number of Units	0
Number of Bedrooms	0
Number of Bathrooms	0
Building Square Footage	5,680.0 (sq ft)
Building 2	No data for building 2
Building 3	No data for building 3
Building 4	No data for building 4
Building 5	No data for building 5
Additional Information	
Airport Hazard	None
Coastal Zone	None
Farmland	Area Not Mapped
Very High Fire Hazard Severity Zone	No
Fire District No. 1	Yes
Flood Zone	None
Watercourse	No
Hazardous Waste / Border Zone Properties	No
Methane Hazard Site	Methane Zone
High Wind Velocity Areas	No
Special Grading Area (BOE Basic Grid Map A-13372)	No
Oil Wells	None
Active Fault Near-Source Zone	
Nearest Fault (Distance in km)	0.26485596
Nearest Fault (Name)	Puente Hills Blind Thrust
Region	Los Angeles Blind Thrusts
Fault Type	B
Slip Rate (mm/year)	0.70000000
Slip Geometry	Reverse
Slip Type	Moderately / Poorly Constrained
Down Dip Width (km)	19.00000000
Rupture Top	5.00000000
Rupture Bottom	13.00000000
Dip Angle (degrees)	25.00000000
Maximum Magnitude	7.10000000

Alquist-Priolo Fault Zone	No
Landslide	No
Liquefaction	No
Preliminary Fault Rupture Study Area	No
Tsunami Inundation Zone	No
Economic Development Areas	
Business Improvement District	SOUTH PARK II
Promise Zone	No
Renewal Community	Los Angeles
Revitalization Zone	Central City
State Enterprise Zone	LOS ANGELES STATE ENTERPRISE ZONE
Targeted Neighborhood Initiative	None
Public Safety	
Police Information	
Bureau	Central
Division / Station	Central
Reporting District	185
Fire Information	
Bureau	Central
Batallion	1
District / Fire Station	10
Red Flag Restricted Parking	No



City of Los Angeles Department of City Planning

3/21/2017

PARCEL PROFILE REPORT

PROPERTY ADDRESSES

220 W OLYMPIC BLVD

ZIP CODES

90015

RECENT ACTIVITY

None

CASE NUMBERS

CPC-4026
CPC-2017-432-CPU
CPC-2016-4710-TDR-MCUP-SPR
CPC-2010-213-CA
CPC-2008-4502-GPA
CPC-2008-4502-GPA
CPC-2005-361-CA
CPC-2005-1124-CA
CPC-2005-1122-CA
CPC-1994-225-CPU-ZC
CPC-1986-606-GPC
CPC-17168
ORD-83552
ORD-77161
ORD-164307-SA2645
ORD-137036
ORD-135901
ORD-129944
ORD-128690
VTT-74760
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ENV-2008-4505-ND
ENV-2008-4505-ND
ENV-2005-362-CE
ENV-2005-1125-CE
ENV-2005-1123-CE
AFF-6849
AFF-4236

Address/Legal Information

PIN Number 126A209 36
Lot/Parcel Area (Calculated) 7,516.5 (sq ft)
Thomas Brothers Grid PAGE 634 - GRID E5
Assessor Parcel No. (APN) 5139013003
Tract E. H. WORKMAN TRACT
Map Reference M R 5-36
Block None
Lot 9
Arb (Lot Cut Reference) None
Map Sheet 126A209

Jurisdictional Information

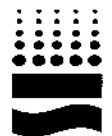
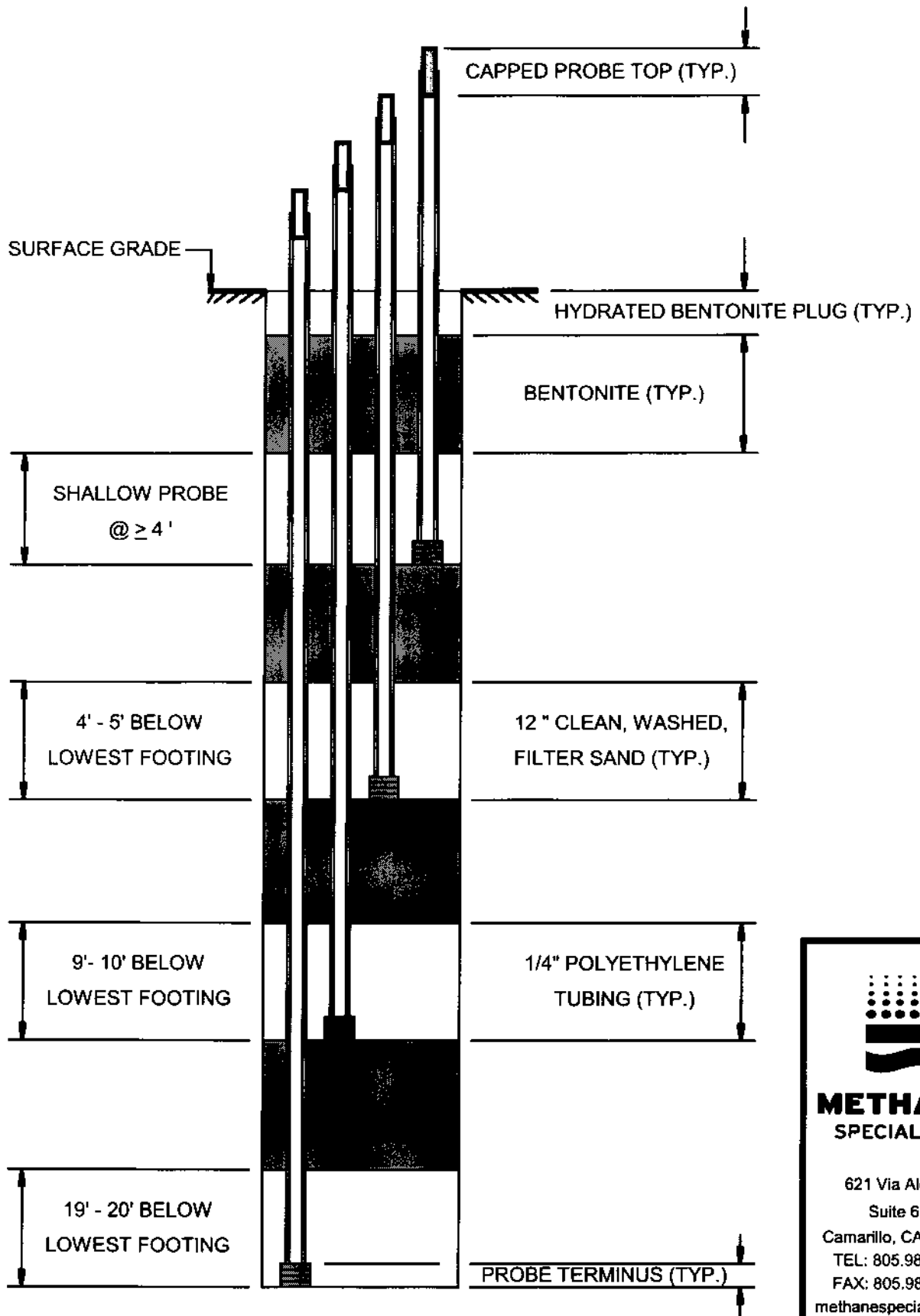
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General Plan Footnote(s) Yes
Hillside Area (Zoning Code) No
Specific Plan Area None
Special Land Use / Zoning None
Design Review Board No
Historic Preservation Review No
Historic Preservation Overlay Zone None
Other Historic Designations None
Other Historic Survey Information None
Mills Act Contract None
CDO: Community Design Overlay None
CPIO: Community Plan Imp. Overlay None
District None
Subarea None
CUGU: Clean Up-Green Up None
NSO: Neighborhood Stabilization Overlay No
POD: Pedestrian Oriented Districts None
SN: Sign District No
Streetscape No
Adaptive Reuse Incentive Area Adaptive Reuse Incentive Areas
Ellis Act Property No
Rent Stabilization Ordinance (RSO) No

CRA - Community Redevelopment Agency	City Center Redevelopment Project
Central City Parking	Yes
Downtown Parking	Yes
Building Line	20
500 Ft School Zone	No
500 Ft Park Zone	No
Assessor Information	
Assessor Parcel No. (APN)	5139013003
APN Area (Co. Public Works)*	0.172 (ac)
Use Code	2700 - Commercial - Parking Lot (Commercial Use Property) - Lots - Patron or Employee - One Story
Assessed Land Val.	\$158,416
Assessed Improvement Val.	\$4,205
Last Owner Change	11/26/2014
Last Sale Amount	\$9
Tax Rate Area	13264
Deed Ref No. (City Clerk)	2639
Building 1	
Year Built	1964
Number of Units	0
Number of Bedrooms	0
Number of Bathrooms	0
Building Square Footage	7,500.0 (sq ft)
Building 2	No data for building 2
Building 3	No data for building 3
Building 4	No data for building 4
Building 5	No data for building 5
Additional Information	
Airport Hazard	None
Coastal Zone	None
Farmland	Area Not Mapped
Very High Fire Hazard Severity Zone	No
Fire District No. 1	Yes
Flood Zone	None
Watercourse	No
Hazardous Waste / Border Zone Properties	No
Methane Hazard Site	Methane Zone
High Wind Velocity Areas	No
Special Grading Area (BOE Basic Grid Map A-13372)	No
Oil Wells	None
Active Fault Near-Source Zone	
Nearest Fault (Distance in km)	0.265364976
Nearest Fault (Name)	Puente Hills Blind Thrust
Region	Los Angeles Blind Thrusts
Fault Type	B
Slip Rate (mm/year)	0.70000000
Slip Geometry	Reverse
Slip Type	Moderately / Poorly Constrained
Down Dip Width (km)	19.00000000
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Alquist-Priolo Fault Zone	No
Landslide	No
Liquefaction	No
Preliminary Fault Rupture Study Area	No
Tsunami Inundation Zone	No
Economic Development Areas	
Business Improvement District	SOUTH PARK II
Promise Zone	No
Renewal Community	Los Angeles
Revitalization Zone	Central City
State Enterprise Zone	LOS ANGELES STATE ENTERPRISE ZONE
Targeted Neighborhood Initiative	None
Public Safety	
Police Information	
Bureau	Central
Division / Station	Central
Reporting District	185
Fire Information	
Bureau	Central
Batallion	1
District / Fire Station	10
Red Flag Restricted Parking	No



**METHANE
SPECIALISTS**

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TEMPORARY MULTI-STAGE GAS MONITORING PROBES FOR METHANE

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

P/BC 2002-101

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

Site Address: 1000-1034 S. Hill street / 220-226 W. Olympic Blvd., Los Angeles, CA - 90015 Job: 3405.r1

Description of Gas Analysis Instrument(s):

Instrument Name and Model: RKI Eagle Instrument Accuracy: 500 ppm/v.

City of Los Angeles Testing License #: 10202

Date	Time	Probe Set #	Stablized CH4 Concentration (ppm/v)	Gas Pressure (in - H2O)	Probe Depth (feet)	Descriptions / Comments: <i>no perched water was met</i> <i>Refusal was met as shown below</i> <i>Groundwater was not met at any probe</i>
4/20/2017	8:45	SP-1	< 500	< 0.1	4	
"	8:40	DP-1	1,000	< 0.1	5	
"	8:35	DP-1	< 500	< 0.1	10	
"	8:30	DP-1	< 500	< 0.1	28	met refusal
"	10:10	SP-2	1,000	< 0.1	4	
"	10:05	DP-2	< 500	< 0.1	5	
"	10:00	DP-2	2,000	< 0.1	10	<= Maximum Stabilized CH4 Reading (equals 4 % LEL)
"	9:55	DP-2	< 500	< 0.1	22	met refusal
"	12:15	SP-3	< 500	< 0.1	4	
"	12:10	DP-3	500	< 0.1	5	
"	12:05	DP-3	< 500	< 0.1	10	
"	12:00	DP-3	< 500	< 0.1	22	met refusal
"	8:50	SP-4	< 500	< 0.1	4	
"	10:20	SP-5	< 500	< 0.1	4	
"	1:00	SP-6	< 500	< 0.1	4	

INSTRUMENTATION CALIBRATION RECORD:

DATE: 4/20/2017 TIME: 8:00 A.M INIT: R.C. GROUNDWATER?: (Y) (N) DEPTH: -110' as per Geo. Rpt
 DATE: _____ TIME: _____ INIT: _____ REFUSAL?: (Y) (N) DEPTH: (see above)
 DATE: _____ TIME: _____ INIT: _____ REMARKS: < 500 ppmv <=> "Non-Detect" <=> "ND"
 DATE: _____ TIME: _____ INIT: _____ Tester: Ramon Camacho

TABLE 1A - MITIGATION REQUIREMENTS FOR METHANE ZONE

SITE DESIGN LEVEL		LEVEL I		LEVEL II		LEVEL III		LEVEL IV		LEVEL V	
DESIGN METHANE CONCENTRATION (ppm/v)		0 - 100		101 - 1,000		1,001 - 5,000		5,001 - 12,500		>12,500	
DESIGN METHANE PRESSURE (inches of water column)		≤2"	>2"	≤2"	>2"	≤2"	>2"	≤2"	>2"	ALL PRESSURES	
PASSIVE SYSTEM	DE-WATERING SYSTEM *		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 UNDER MEMBRANE	2"	2"	2"	3"	2"	3"	2"	4"	4"
		GRAVEL THICKNESS SURROUNDING 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 VENT SYSTEM								X+	X+	
	LOWEST OCCUPIED SPACE SYSTEM	GAS DETECTION SYSTEM				X	X	X	X	X	X
		MECHANICAL VENTILATION SYSTEM		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	
	CONDUIT OR CABLE SEAL FITTINGS		X	X	X	X	X	X	X	X	
	ADDITIONAL VENT RISERS +										X+


- X ⇒ Required, as per the Methane Code of the City of Los Angeles.
- * ⇒ De-Watering not required when the maximum historical high groundwater table elevation, or projected post-construction groundwater level, is more than twelve inches below the bottom of the perforated horizontal pipes.
- + ⇒ Vent risers maximum spacing shall be less than, or equal to, 100 Linear Feet, measured between vent risers.

FORM 1 - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

P/BC 2002-101

Part 1: Certification Sheet

Site Address: 1000-1034 S. Hill street / 220-226 W. Olympic Blvd., Los Angeles, CA - 90015 Job No. 3405.r1
 Legal Description: Tract: E. H. Workman Tract Lot(s): 9 through 15 Block: (un-numbered)
 Building Use: new 'mixed use complex' to be built with at least 7 'subterranean levels'

Name of Architect, Engineer, or Geologist: Kirby N. Arriola, P.E.	Architect's, Engineer's or Geologist's Stamp 
Mailing Address: Methane Specialists 621 Via Alondra, # 610 Camarillo, CA - 93012	
Telephone: (805) 987-5356	
Name of Testing Laboratory: Methane Specialists	
City Test Lab License #: <u>10202</u> Telephone: (805) 987-5356	

I hereby certify that I have tested the above site for the purposes 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 hereon.

Signed: *Kirby N. Arriola* Date: 21 Apr 2017

Required Data:

- * Project is in the (**Methane Zone**) or (Methane Buffer Zone).
- * Depth of Groundwater observed during testing: > 45' below the Impervious Membrane (at ~ 80' below surface)
- * Depth of Historical High Ground Water Table Elevation*: > 30' below the Impervious Membrane (at ~ 80', bsg)
- * Design Methane Concentration**: 2,000 parts per million in volume (ppm/v). (i.e.: 4% LEL)
- * Design Methane Pressure Value***: 0.1 inches of water column.
- * Site Design Level: (Level I, Level II, Level III, Level IV, Level V) with < 2.0 inches of water column

Dewatering:

- * Dewatering (is) (**is not**) required for methane mitigation per Section 91.7104.3.7. (subject to **Final Geotech Report**)
- * Pump discharge rate not provided cubic feet per minute per reference geology or soil report:

'**GEOTECHNICAL INVESTIGATION**' by '**GEOCON WEST, INC.**' ('No. **A9549-06-01**') dated '**February 28, 2017**'

Additional Investigation:

- * Additional Investigation (was) (**was not**) conducted. (by **Methane Specialists**)

Latest Grading on Site:

- * Date of last grading on site (**was**) (~~was not~~) more than 30 days before Site Testing.

Notes:

- * Historical High Ground Water Table Elevation shall mean the highest recorded elevation of ground water 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 Probe Set on the site.
- *** Design Methane Pressure shall mean the highest total pressure measured for any Gas Probe Set on the site.