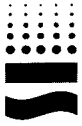


May 11, 2023

Scope of work revised per client:

The project proposes to replace a 107,100 sf vacant parcel with two seven story mixed-use buildings, providing 327 dwelling units, 9,462 of commercial space, and 263 on-site spaces.



METHANE
SPECIALISTS

March 4, 2013
Job # J2715

To: Aragon Properties, Ltd.
1590 Rosecrans Ave., Suite #D-303
Manhattan Beach, CA – 90266

Attn: Mr. Fred Schaffer, General Manager, Los Angeles Division

Tel: 310.213.6560

Email: fshaffer@aragon.ca

Subj: Site Methane Investigation Report for:

1185-1245 W. Sunset Blvd.
Los Angeles, CA – 90026

621 Via Alondra
Suite 610
Camarillo, California 93012

TEL: 805.987.5356
FAX: 805.987.3968

methanespecialists.com

Methane Specialists is pleased to submit this report with the results of our subsurface methane investigation for the above mentioned project. 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. This investigation was conducted in accordance with our proposal dated February 22, 2013.

Project Information

As proposed, the project will include the construction of a new “new 200+ Unit Apartment Complex “over “two subterranean parking levels”. The parcel area to be developed is approximately 116,000 square feet. Ground water was not encountered by any probeset during drilling down below a depth of greater than 16 feet, below surface grade (bsg). Refusal was met by three of the deep probes, down to a depth of greater than 16 feet (bsg). A geotechnical report was not provided to us before the writing of this report. Thus, the historical groundwater level at this location assumed to be greater than 16 feet, bsg, and approximately greater than 1 foot below where an impermeable membrane would be required to be installed. Whether de-watering is required is to be determined by the Geotechnical Engineer in his final project report.

The site is within an area which the City of Los Angeles designates as a *Methane Zone*.

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 Department of Building and Safety 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/SC 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 March 1, and 4, 2013. 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 site area is approximately 116,000 square feet, a minimum of twelve (12) *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, a minimum of six (6) 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 site is approximately 116,000 square feet, Methane Specialists installed the required minimum of twelve (12) shallow methane probes at a depth of 4 feet bsg (see Probe Location Map).

The shallow gas probes, designated SP-1 through SP-12, were drilled and installed on March 1, 2013. 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.

Shallow probe site testing was conducted on March 1, and 4, 2013.

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 116,000 square feet, Methane Specialists drilled and installed the required six (6) multiple-depth deep probesets, designated P-1 through P-6, also on March 1, 2013.

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 double to triple-well clusters, starting from greater than 5 feet, bsg, down to refusal at depths from 8 to 16 feet, bsg, at P-1, through P-6 (refer to attached Gas Monitoring Log sheets). Groundwater was not encountered at P-1 through P-6. In all cases, at each probe depth, approximately twelve inches of sand was placed in the borehole around each of the probes. Each of the probe sand layers were separated by layers of bentonite, between the sampling elevations. A hydrated, bentonite, plug was then placed onto the top of each borehole to form a seal as per attached Probe Boring Detail.

Multi-depth probe site testing was also conducted on March 1, and 4, 2013.

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, methane was measured at greater than one percent of the Lower Explosive Limit (LEL) of methane, at the subject site. Therefore, according to Table 1A (enclosed), for the Methane Zone, this project falls under Design Level *II*, with less than 2 inches of water-column gas-pressure. Thus, as per said Methane Code Table 1A, this project *does* require a ‘passive’ methane mitigation system.

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

ASSESSOR PARCEL MAP

PROJECT LOCATION MAP

PARCEL PROFILE REPORT

METHANE PROBE LOCATION MAP

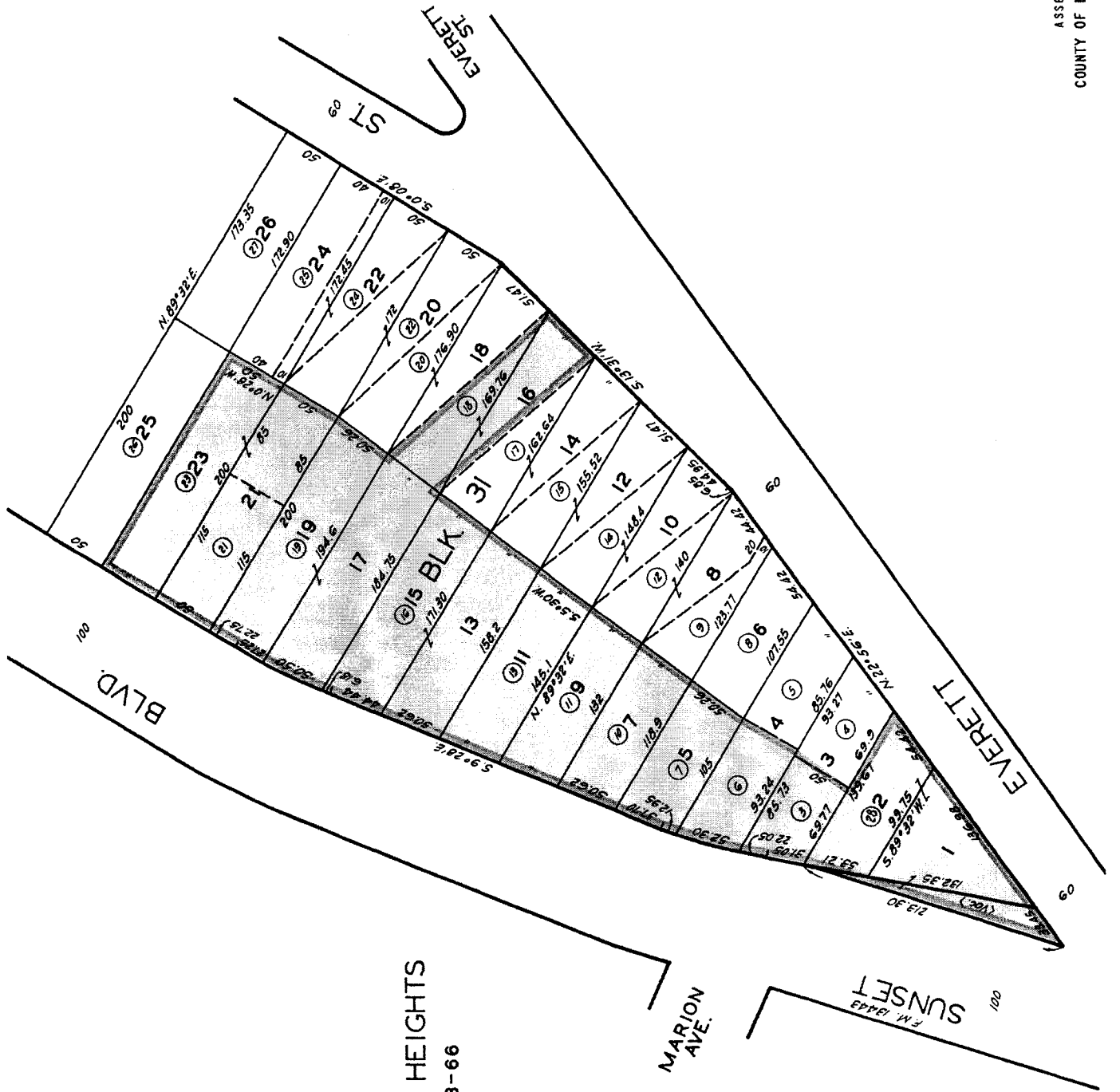
TYPICAL METHANE PROBE SET DETAIL

FORM 1, PART 2 – TEST DATA

TABLE 1 –MITIGATION REQUIREMENTS

FORM 1, PART 1 – CERTIFIED RESULTS

J2715: 1185-1245 W. Sunset Blvd., Los Angeles, CA - 90048




ANGELENO HEIGHTS
M.R. 10-63-66

406	16
E 1" = 80'	

CODE
13

FOR PREV. ASSM'T. SEE: 968-7

[Home](#) [Back](#) [Department of Building and Safety](#)



CITY LA DBS

DEPARTMENT OF BUILDING AND SAFETY

PARCEL PROFILE REPORT

Report Execution Date: February 26, 2013 - 04:31 PM

Job Address(es) -

1) 1185 W. SUNSET BLVD. , 900262) 1187 W. SUNSET BLVD. , 90026**1. PARCEL LEGAL DESCRIPTION INFORMATION:**

Legal Description:

Tract :	<u>ANGELENO HEIGHTS</u>
Block :	<u>31</u>
Lot :	<u>1</u>
Arb :	<u>NO</u>
Modifier:	<u>NO</u>

Map Reference Number for Tract Recordation: M R 10-63/66Parcel ID Number; (PIN): 136-5A211 272**2. BASIC ZONING INFORMATION FOR PARCEL:**

Alquist-Priolo Fault Zone:	<u>NO</u>
Council District:	<u>1</u>
Community Redevelopment Area:	<u>NO</u>
District Map:	<u>136-5A211</u>
Flood Hazard Zone:	<u>NO</u>
Hillside Grading Area:	<u>YES</u>
Hillside Ordinance Area:	<u>YES</u>
Planning Area & Community Name:	<u>Silver Lake - Echo Park - Elysian Valley</u>
Zone(s):	<u>C2-1VL</u>

3. GEOGRAPHICALLY ORIENTED" PARCEL INFORMATION:

Building and Safety Branch Office:	<u>LA</u>
Census Tract:	<u>1977.00</u>
Energy Zone:	<u>9</u>
Fire District:	<u>2</u>
Methane Hazard Site:	<u>Methane Zone</u>
Near Source Zone Distance:	<u>.4</u>

Parcel Area (sqft): 6379.1
 Thomas Brothers Map Grid: 1) 634-F1
2) 634-F2

4. CITY DOCUMENTS ASSOCIATED WITH PARCEL:

Affidavit: AFF-14785
 City Planning Cases: CPC-1995-357-CPU
 Ordinance: 1) ORD-165167-SA5540
2) ORD-176825-SA17
 Zoning Administrator's Case: ZA-1997-277-CUZ
 Zoning Information File: 1) ZI-2129 EAST LOS ANGELES
STATE ENTERPRISE ZONE
2) ZI-2427 FWY Adj Advisory Notice
for Sensitive Uses

5. OTHER PARCEL RELATED INFORMATION:

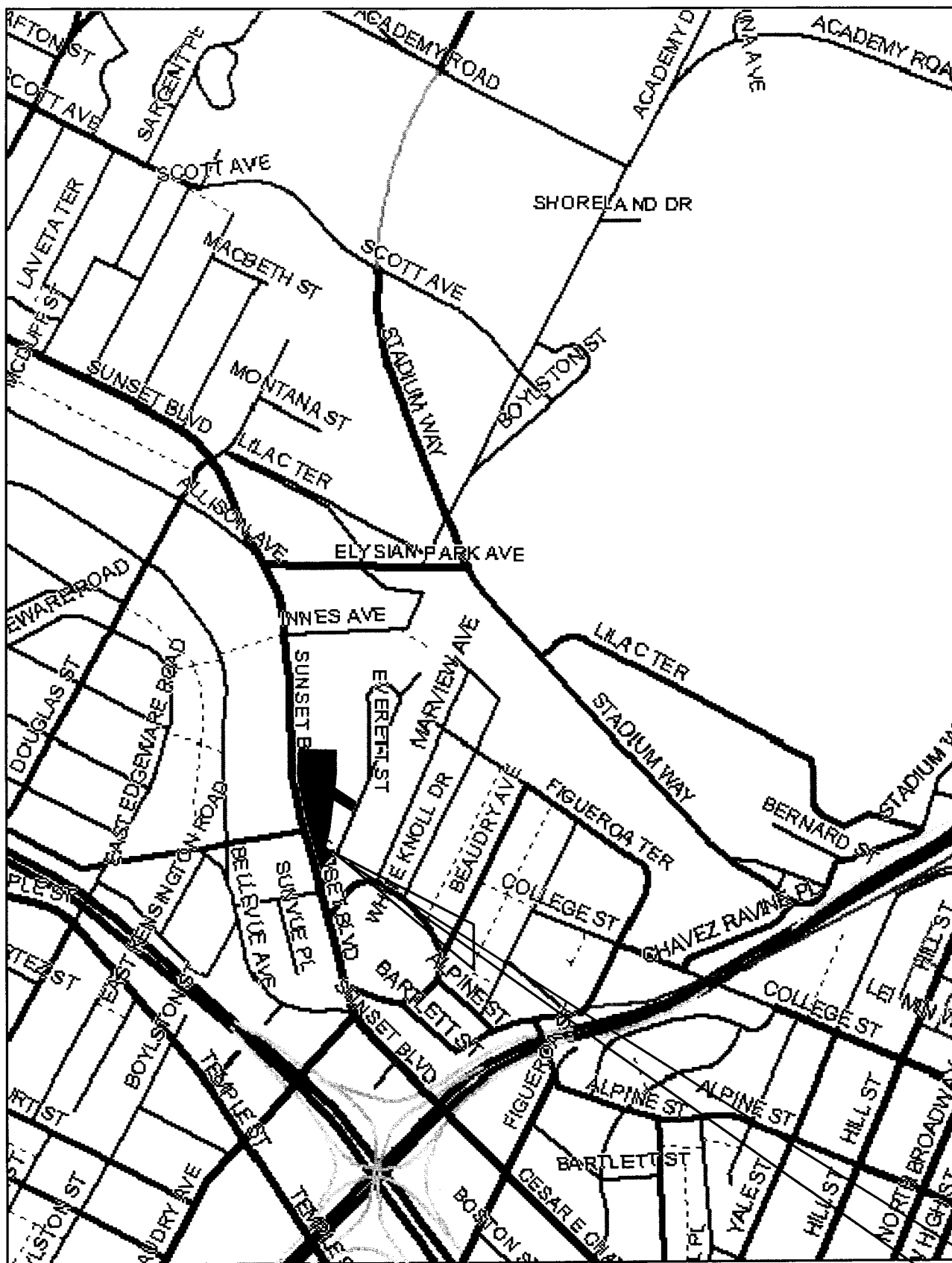
Seismic Gas Shut Off Valve Installed: NO

Parcel Profile Report Disclaimer

The purpose of this application is to allow easy access and visual display of city parcel legal and zoning information as a convenience to our customers. Every reasonable effort has been made to assure the accuracy of the data provided; nevertheless, some information may not be completely accurate and more importantly, it may need to be properly interpreted by city staff. The City of Los Angeles assumes no responsibility arising from the use of this information and it is provided without a warranty of any kind, either expressed or implied. We do not recommend basing important business, legal, or real estate transactions solely on this information without receiving validation and interpretation of the data from staff at your nearest LADBS branch office.

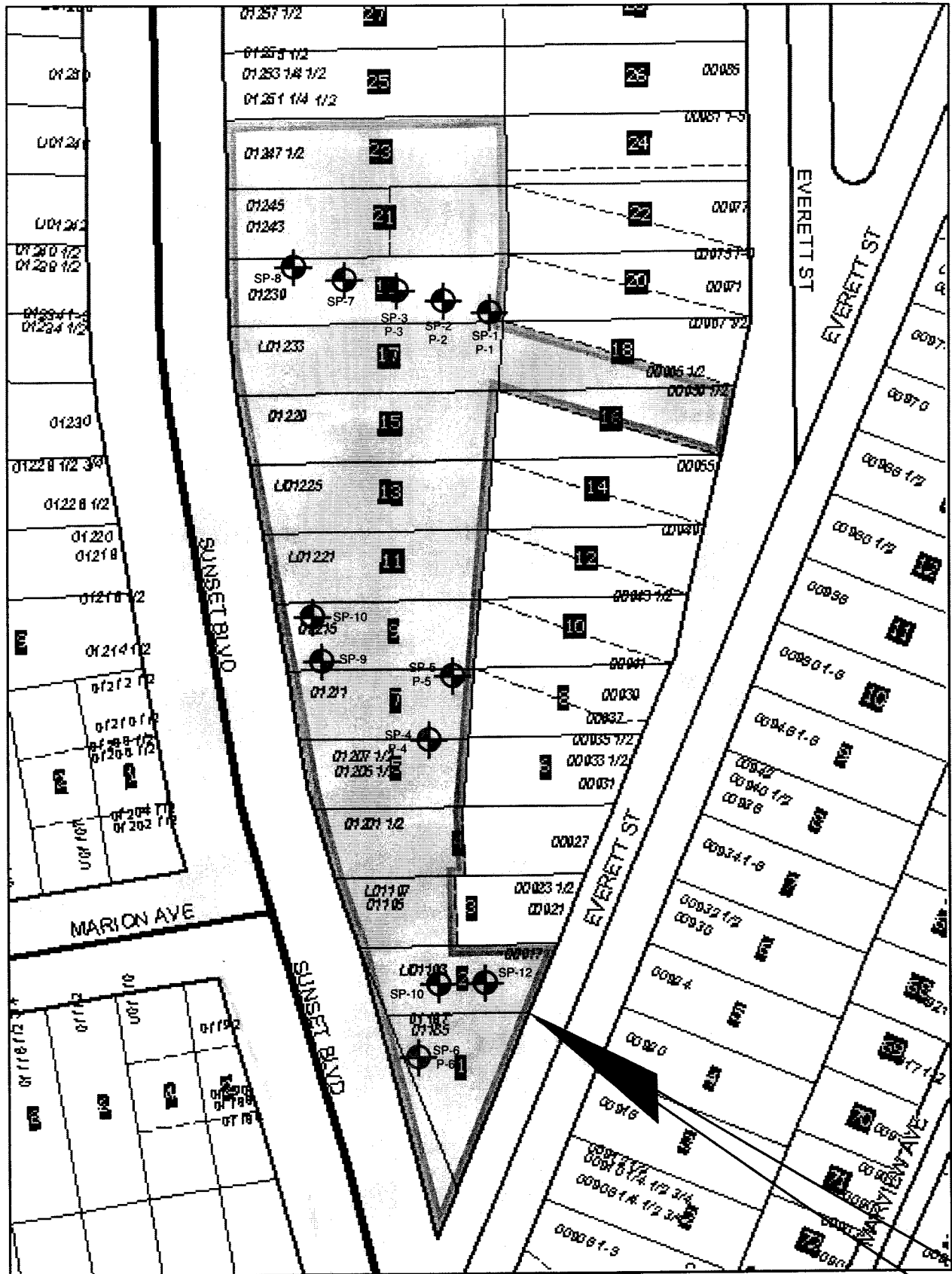
--- Parcel Profile Report Definitions ---

J2715: 1185-1245 W. Sunset Blvd., Los Angeles, CA - 90048

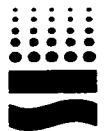
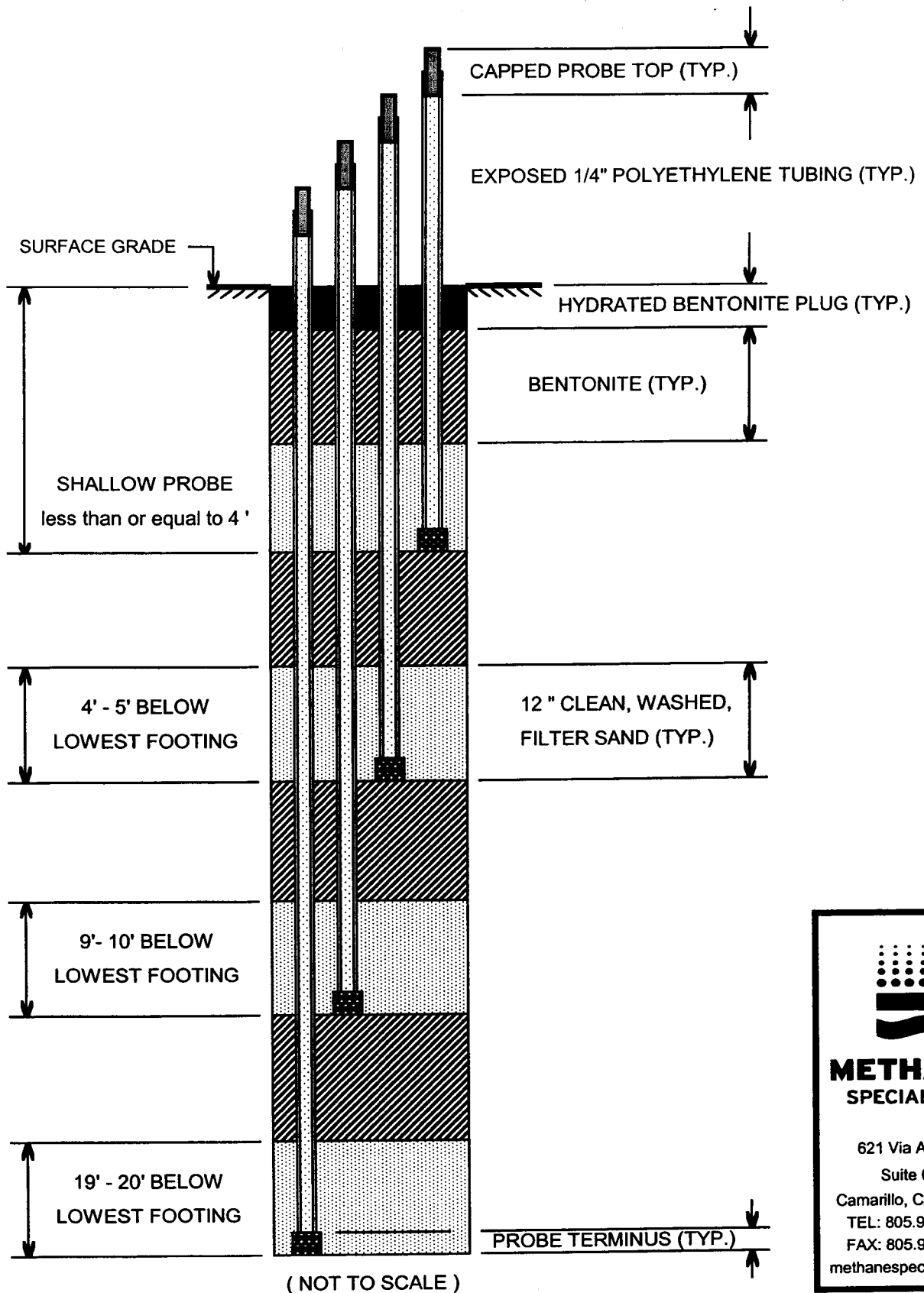


PROJECT LOCATIONS:

METHANE GAS TESTING PROBE LOCATIONS



PROJECT LOCATIONS:



**METHANE
SPECIALISTS**

621 Via Alondra
Suite 610
Camarillo, CA - 93012
TEL: 805.987.5356
FAX: 805.987.3968
methanespecialists.com

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: 1185 - 1245 W. Sunset Blvd., Los Angeles, CA - 90048

Job # 2715

Description of Gas Analysis Instrument(s):

Instrument Name and Model: RKI Eagle

Instrument Accuracy: 500 ppm/v.

City of Los Angeles Testing License #: 10202

Page 1 of 2

Date	Time	Probe Set#	Stablized CH4 Concentration (ppmv)	Pressure (inches of water column)	Probe Depth (feet)	Descriptions / Comments :
						- Refusal was met @ each deep probe (see below) - Groundwater was not met @ any probe
03/01/2013	8:27	SP-1	< 500	< 0.1	4	
"	8:21	P-1	< 500	< 0.1	5	
"	8:14	P-1	< 500	< 0.1	10	14 ppm/v peak H2S reading & met refusal
"	8:56	SP-2	< 500	< 0.1	4	
"	8:45	P-2	< 500	< 0.1	5	30 ppm/v peak H2S reading
"	8:43	P-2	---	< 0.02	8	Low Flow & met refusal
"	9:37	SP-3	< 500	< 0.1	4	
"	9:31	P-3	< 500	< 0.1	5	12 ppm/v peak H2S reading
"	9:26	P-3	< 500	< 0.1	10	
"	9:21	P-3	< 500	< 0.1	16	50 ppm/v peak H2S reading & met refusal
"	12:49	SP-4	< 500	< 0.1	4	
"	12:42	P-4	< 500	< 0.1	5	
"	12:35	P-4	500	< 0.1	10	100 ppm/v peak H2S reading
"	12:34	P-4	---	< 0.03	16	Low Flow & met refusal
"	1:23	SP-5	< 500	< 0.1	4	
"	1:17	P-5	---	< 0.03	5	Low Flow
"	1:12	P-5	< 500	< 0.1	12	100 ppm/v peak H2S reading & met refusal
"	3:00	SP-6	< 500	< 0.1	4	
"	2:55	P-6	< 500	< 0.1	5	
"	2:50	P-6	---	< 0.03	16	Low Flow & met refusal
"	9:52	SP-7	< 500	< 0.1	4	
"	11:36	SP-8	500	< 0.1	4	100 ppm/v peak H2S reading
"	1:33	SP-9	500	< 0.1	4	30 ppm/v peak H2S reading
"	1:48	SP-10	< 500	< 0.1	4	10 ppm/v peak H2S reading
"	2:15	SP-11	500	< 0.1	4	<= Maximum Stabilized CH4 Readings
"	2:26	SP-12	< 500	< 0.1	4	

INSTRUMENTATION CALIBRATION RECORD:

WATER ENCOUNTERED ? (Y) (N) DEPTH: (see above)

DATE: 3/01/2012 TIME: 8:10 A.M. INIT: D. R. REFUSAL ? (Y) (N) DEPTH: (see above)

DATE: 3.04/2012 TIME: 9:10 A.M. INIT: D. R. COMMENTS: "< 500 ppmv" <=> "Non-Detect" <=> "ND"

DATE: _____ TIME: _____ INIT: _____ tester was Dan Rogers

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: 1185 - 1245 W. Sunset Blvd., Los Angeles, CA - 90048

Job # 2715

Description of Gas Analysis Instrument(s):

Instrument Name and Model: RKI Eagle

Instrument Accuracy: 500 ppm/v.

City of Los Angeles Testing License #: 10202

Page 2 of 2

Date	Time	Probe Set#	Stablized CH4 Concentration (ppmv)	Pressure (inches of water column)	Probe Depth (feet)	Descriptions / Comments :
						- Refusal was <u>met</u> @ each deep probe (see below) - Groundwater was <u>not met</u> @ any probe
03/04/2013	8:27	SP-1	< 500	< 0.1	4	
"	8:21	P-1	< 500	< 0.1	5	
"	8:14	P-1	---	< 0.02	8	Low Flow & previously met refusal
"	8:56	SP-2	< 500	< 0.1	4	
"	8:45	P-2	< 500	< 0.1	5	500 ppm/v peak CH4 reading
"	8:43	P-2	---	< 0.02	8	Low Flow & previously met refusal
"	9:37	SP-3	< 500	< 0.1	4	
"	9:31	P-3	< 500	< 0.1	5	
"	9:26	P-3	< 500	< 0.1	10	
"	9:21	P-3	< 500	< 0.1	16	previously met refusal
"	12:49	SP-4	< 500	< 0.1	4	
"	12:42	P-4	< 500	< 0.1	5	
"	12:35	P-4	---	< 0.01	10	Low Flow
"	12:34	P-4	---	< 0.02	16	Low Flow & previously met refusal
"	1:23	SP-5	< 500	< 0.1	4	
"	1:17	P-5	< 500	< 0.1	5	
"	1:12	P-5	---	< 0.02	5	Low Flow & previously met refusal
"	3:00	SP-6	< 500	< 0.1	4	
"	2:55	P-6	500	< 0.1	5	
"	2:50	P-6	---	< 0.03	16	Low Flow & previously met refusal
"	9:52	SP-7	< 500	< 0.1	4	
"	11:36	SP-8	< 500	< 0.1	4	
"	1:33	SP-9	500	< 0.1	4	500 ppm/v peak H2S reading
"	1:48	SP-10	500	< 0.1	4	
"	2:15	SP-11	< 500	< 0.1	4	
"	2:26	SP-12	< 500	< 0.1	4	

INSTRUMENTATION CALIBRATION RECORD: WATER ENCOUNTERED ? (Y) (N) DEPTH: (see above)

DATE: 3/01/2012 TIME: 8:10 A.M. INIT: D. R. REFUSAL ? (Y) (N) DEPTH: (see above)

DATE: 3.04/2012 TIME: 9:10 A.M. INIT: D. R. COMMENTS: "< 500 ppmv" <=> "Non-Detect" <=> "ND"

DATE: _____ TIME: _____ INIT: _____ tester was Dan Rogers

TABLE 1A - MITIGATION REQUIREMENTS FOR METHANE ZONE

SITE DESIGN LEVEL		LEVEL I		<u>LEVEL II</u>		LEVEL III		LEVEL IV		LEVEL V	
		0 - 100		101 - 1,000		1,001 - 5,000		5,001 - 12,500		>12,500	
DESIGN METHANE CONCENTRATION (ppmv)											
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	PRESSURE SENSORS UNDER MEMBRANE							X	X	
		MECHANICAL EXTRACTION 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.

FORM 1 - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

P/BC 2002-101

Part 1: Certification Sheet

Site Address: 1185 - 1245 W. Sunset Blvd., Los Angeles, CA - 90048 Job No. 2715
 Legal Description: Tract: ANGELINO HEIGHTS Lot: 1 through 23 Block: 31
 Building Use: "New 200+ Unit Apartment Complex" over "two Subterranean Parking 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: 4 Mar 2013

Required Data:

- * Project is in the (**Methane Zone**) or (Methane Buffer Zone).
- * Depth of Groundwater observed during testing: > 1' **below** the Impervious Membrane
- * Depth of Historical High Ground Water Table Elevation*: > 1' **below** the Impervious Membrane
- * Design Methane Concentration**: 500 parts per million in volume (ppm/v).
- * 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. (**but still subject to Geotech Report**)
- * Pump discharge rate not provided 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 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.