APPENDIX 5.6
Landfill Gas Field Sampling Forms

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
Mission Bay Landfill	San Diego	5-25-04	Cloudy, Cool, 63°	K. Stackpole	1 of 4

SUMMA CANISTER ID	9423 BB	3002	9423 BB	3002	9423 BB
SAMPLE NUMBER	MB-4B (SG)	MB-4B (LFG)	MB-3B (SG)	MB-3B (LFG)	MB-2B (SG)
TOTAL CANISTER VACUUM (in. Hg)	30	28		21 (start)	
CANISTER VOLUME (L)					
CANISTER VACUUM/VOL (in. Hg/L)	200 ml/min				
BAROMETRIC PRESSURE	29.94	29.94	29.94	29.94	29.93
TIME: BEGIN PURGE					
PURGE RATE					
TIME: END PURGE					
PURGE VOLUME (L)	1.5 L	1.5 L	1.5 L	1.5 L	1.5 L
% METHANE	0	35.0	5.7	8.9	13.2
% CO2	6.0	28.2	12.8	18.4	13.7
% OXYGEN	13.8	5.1	9.2	7.0	11
% NITROGEN (CALC)	80.3	31.4	72.1	65.6	62
CANISTER VAC: INITIAL	-30	-28	-23	-21	-16
TIME: BEGIN FILL	9:38	10:03	10:49	10:29	11:32
CANISTER VAC: FINAL	-25	-22	-18	-16	-11
TIME: END FILL	9:45	10:10	10:56	10:37	11:39
SAMPLE FILL RATE (ml/min)					
SAMPLE VOLUME (L)					
SAMPLE TEMPERATURE					
SAMPLE DEPTH	5'	10'	3'	5'	2' 1'
H_2S	.002 ppm	.043 ppm	.038	.035	.006
FID	260 ppm	N/A	exceeded alarm	—	exceeded alarm

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/25/04	Cloudy, cool 65°	K. STACKPOLE	2 of 4

SUMMA CANISTER ID	3002	9423BB	3002	9423BB	3002
SAMPLE NUMBER	MB-2B (LFG)	MB-3C (SG)	MB-3C (LFG)	MB-4C (SG)	MB 4C (LFG)
TOTAL CANISTER VACUUM (in. Hg)					
CANISTER VOLUME (L)					
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.93	29.94	29.94	29.94	29.94
TIME: BEGIN PURGE					
PURGE RATE					
TIME: END PURGE					
PURGE VOLUME (L)					
% METHANE	16.4	12.9	21.3	0.0	16.5
% CO2	12.7	10.2	~~15~~ 17.5	0.3	14.2
% OXYGEN	12.5	13.3	10.9	19.0	12.8
% NITROGEN (CALC)	58.4	63.5	50.3	80.8	56.5
CANISTER VAC: INITIAL	-14	-10	-9.5	-5	-5
TIME: BEGIN FILL	12:05	12:36	12:54	—	2:08
CANISTER VAC: FINAL	-10	-5	-5.5	-1	-1
TIME: END FILL	12:13	12:45	1:02	—	2:16
SAMPLE FILL RATE (ml/min)					
SAMPLE VOLUME (L)					
SAMPLE TEMPERATURE					
SAMPLE DEPTH	7'	5'	10'	5'	10'
H_2S	0.23 ppm	.001 ppm	.028 ppm	.001 ppm	.013 ppm
FID	N/A	exceeded alarm	N/A	didn't collect	N/A

BACKGROUND PID = 0.06 ppm - 1.5 ppm
FID = 0.05 ppm - 0.34 ppm

Profile Only

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
Mission Bay LF / CSD	San Diego	5/25/04	Cloudy, cool	K STACKPOLE	3 of 4

SUMMA CANISTER ID					
SAMPLE NUMBER	MB-2B (SAB)(A)	MB-2B (B)	MB-2B (C)	MB-2B	MB-2B
TOTAL CANISTER VACUUM (in. Hg)					
CANISTER VOLUME (L)					
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.3				
TIME: BEGIN PURGE					
PURGE RATE					
TIME: END PURGE					
PURGE VOLUME (L)					
% METHANE	20.7	22.8	27.2	27.4	26.4
% CO2	20.5	20.3	21.2	20.2	18.8
% OXYGEN	7.5	8.0	7.8	08.6	09.7
% NITROGEN (CALC)	51.9	49.0	43.8	43.8	45.1
CANISTER VAC: INITIAL					
TIME: BEGIN FILL					
CANISTER VAC: FINAL					
TIME: END FILL	profile only				
SAMPLE FILL RATE (ml/min)					
SAMPLE VOLUME (L)					
SAMPLE TEMPERATURE					
SAMPLE DEPTH	3'	5'	7'	10'	13'

all #s run out to 0

Profile Only

typical LFG
45% CH_4
45% CO_2

(*) Connect GEM directly to tube

for SV
Low O_2 for surface
CO_2 around the same as methane

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
Mission Bay Landfill	San Diego	5/25/04	Cloudy, cool, 63°F	KStackpole	4 of 4

SUMMA CANISTER ID					
SAMPLE NUMBER	MB-4B (SG)	MB4B(2) (SG)	MB-4B(3)(SG)	MB-4B(4)(LFG)	MB-4B(5)(LFG)
TOTAL CANISTER VACUUM (in. Hg)					
CANISTER VOLUME (L)					
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.92				
TIME: BEGIN PURGE					
PURGE RATE					
TIME: END PURGE					
PURGE VOLUME (L)					
% METHANE	0	0	0.4	35.0	1.3
% CO2	8.2	6.0	4.6	28.2	1.2
% OXYGEN	12.6	13.8	15.8	5.1	18.1
% NITROGEN (CALC) (BAL)	79.3	80.3	79.8	31.4	79.6
CANISTER VAC: INITIAL					
TIME: BEGIN FILL					
CANISTER VAC: FINAL					
TIME: END FILL					
SAMPLE FILL RATE (ml/min)					
SAMPLE VOLUME (L)					
SAMPLE TEMPERATURE					
SAMPLE DEPTH	3'	5'	7'	10'	13'

profile only

(55) (10)

lfg sampling form

FID = T.O. Vapors

8:40 am BACKGROUND PID = 0.45 ppm
" FID = 0.25 ppm

Canister 2323 – MB2-Sur
" 3296 = MB2-Lfg

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/26/04	Cloudy, Cool 60°	Stackpole	1 of 4

	Sur	Lfg	Sur	Lfg	Sur
SUMMA CANISTER ID	2323	3296	2323	3296	2323
SAMPLE NUMBER	MB-3D	MB-3D	MB-2E	MB-2E	MB-2F
TOTAL CANISTER VACUUM (in. Hg)	29	29	19	19	14
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.94	29.95	29.96	29.96	
TIME: BEGIN PURGE	7:58	8:20	8:50	9:31	10:17
PURGE RATE ml/min	500	500 ml/min	500	500	500
TIME: END PURGE	8:00	8:22	8:53	9:35	10:21
PURGE VOLUME (L)	.5	.5	.5	.5	.5
% METHANE	0.0	01.9%	0	40.0	0
% CO2	2.0	03.1%	005	23.4	0.1
% OXYGEN	17.5	16.7%	15.8	5.8	18.7
% NITROGEN (CALC)	80.5	78.4%	83.7	30.3	81.2
CANISTER VAC: INITIAL	29	29	24	24	19
TIME: BEGIN FILL	8:07	8:24	8:54	9:37	10:22
CANISTER VAC: FINAL	24	24	19	19	14
TIME: END FILL	8:13	8:32	9:00	9:44	10:28
SAMPLE FILL RATE (ml/min)	~250	~250	~250	250	250
SAMPLE VOLUME (L)	1L	1L	1L	1	1
SAMPLE TEMPERATURE					
SAMPLE DEPTH (ft below grade)	4'	10'	4'	15'	4'
H_2S	.001 ppm	0 ppm	.002 ppm	1.45 ppm	.003 ppm
FID	2.6 ppm	exceeded alarm	87.25 ppm	N/A	10.4
PID	8.7 ppm	↓	43.40 ppm	N/A	17.63

lfg sampling form

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/26/04	Cloudy, cool	Strickpole	2 of 4

	LFG	SV!	LFG	SV	LFG
SUMMA CANISTER ID	3296	2323	3296	2323	3296
SAMPLE NUMBER	MB 2F	MB-3F	MB-3F	MB-3E	MB-3E
TOTAL CANISTER VACUUM (in. Hg)	14	9	9	9	3
CANISTER VOLUME (L)	4L	3L	3L	2L	2L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.95	29.97	29.96	29.96	29.97
TIME: BEGIN PURGE	10.48	11:26	12:43	2:55	2:28
PURGE RATE	500	500	500	500	500
TIME: END PURGE	10:51	11:29	12:47	3.10	2:32
PURGE VOLUME (L)	.5	.5	.5	.5	.5
% METHANE	10.7	0.0	2.5 (max)	00.4	46.6
% CO2	50.1	1.2	4.0 (max)	00.4	31.5
% OXYGEN	2.8	17.9	12.0	19.4	3.6
% NITROGEN (CALC)	36.3	80.8	81.0	79.8	18.1
CANISTER VAC: INITIAL	10:54	14	14	9	8
TIME: BEGIN FILL	19	11:31	12:47	3:09	2:38
CANISTER VAC: FINAL	14	9	9	4	3
TIME: END FILL	11:00	11:39	12:54	3:17	2:46
SAMPLE FILL RATE (ml/min) approx.	250	250	250	250	250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE					
SAMPLE DEPTH	7' (GW@13')	4'	9'	4'	16.5'
H_2S	.013 ppm	0 ppm	.001	.002 ppm	1.6 ppm
FID	N/A	exceeded alarm	N/A	N/A	N/A
PID	⊥	⊥	⊥	⊥ D. tubing on	⊥

lfg sampling form

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD - ESD	San Diego	5/26/04	Sunny, breezy 68°	K. Stackpole	3 of 4

	LFG	SUR	LFG	SUR	LFG
SUMMA CANISTER ID	2741	2629	2741	2629	2741
SAMPLE NUMBER	MB-2D	MB-2D	MB-2C	MB2C	MB-1C
TOTAL CANISTER VACUUM (in. Hg)	30	29	25	24	19
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.95	29.95	29.94	29.93	29.92
TIME: BEGIN PURGE	3:37	4:00	4:30	4:57	5:17
PURGE RATE	500	500	500	500	500
TIME: END PURGE	3:41	4:08	4:40	5:02	5:20
PURGE VOLUME (L)	.5	.5	.5	.5	.5
% METHANE	38.5	00.2	3.4	0	43.7
% CO2	34.1	01.3	3.0	2.7	35.0
% OXYGEN	4.2	16.3	17.3	16.3	3.6
% NITROGEN (CALC)	22.4	82.3	76.2	81.0	17.6
CANISTER VAC: INITIAL	3:42	29	24	23	18
TIME: BEGIN FILL	30	4:08	4:41	5:02	5:20
CANISTER VAC: FINAL	351	24	19	18	13
TIME: END FILL	25	4:17	4:49	5:09	5:41
SAMPLE FILL RATE (ml/min)	250	250	250	250	250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE					
SAMPLE DEPTH	15'	4'	15'	4'	10'
H_2S	.007 ppm	.002	.007	.004	2.1
FID	N/A	N/A	N/A	2.2 ppm	N/A
PID	⊥	⊥	⊥	4.37 ppm	⊥

lfg sampling form

(SW)

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF/CSD-ESD	San Diego	5/26/04	Cloudy, breezy, cool 60°	K. Stackpole	4 of 4

SUMMA CANISTER ID	2629				
SAMPLE NUMBER	MB-1C				
TOTAL CANISTER VACUUM (in. Hg)	18				
CANISTER VOLUME (L)	4L				
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.92				
TIME: BEGIN PURGE	5:49				
PURGE RATE	500				
TIME: END PURGE	5:50				
PURGE VOLUME (L)	1L				
% METHANE	15.2				
% CO2	15.2				
% OXYGEN	9.8				
% NITROGEN (CALC)	59.8				
CANISTER VAC: INITIAL	17				
TIME: BEGIN FILL	5:50				
CANISTER VAC: FINAL	12				
TIME: END FILL	5:58				
SAMPLE FILL RATE (ml/min) approx	250				
SAMPLE VOLUME (L)	1L				
SAMPLE TEMPERATURE					
SAMPLE DEPTH	2'				

KS 5/26/04

H_2S	.020 ppm
FID	N/A
PID	⊥

* 4' sample for MB-1C = 27% CH_4, collected sample @ 2 ft bgs instead.

lfg sampling form

MB-1A NOT Collected (LD)

BACKGROUND FID = 0.42 ppm
PID = 0.91 ppm
H_2S = 0 ppm
8:30 am

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/26/04	Cloudy, Cool	K. Stackpole	1 of 4

SUMMA CANISTER ID	2353	1280			
SAMPLE NUMBER	MB-1B	MB-1B	MB-2A	MB-2A	MB-3A
TOTAL CANISTER VACUUM (in. Hg) (@ start)	29	29	23	23	17
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	30.01	30.00	29.99	30.00	30.00
TIME: BEGIN PURGE	7:53	8:12	9:11	9:27	9:50
PURGE RATE	500	500	500	500	500
TIME: END PURGE	7:57	8:15	9:14	9:35	9:55
PURGE VOLUME (L) (1L in tedlar)	.5	.5	.5	.5	.5
% METHANE	1.9	00.0	(120) 1.0 * highest CH4 was H2O	9.2	42.9
% CO2	11.5	00.9	01.1 with a flocculation in the sample.	7.3	35.4
% OXYGEN	11.6	18.2	18.5	15.4	00.3
% NITROGEN (CALC) (Bal)		81.0	79.3	68.1	21.6
CANISTER VAC: INITIAL	29	29	23	23	17
TIME: BEGIN FILL	7:57	8:18	9:16	9:35	9:56
CANISTER VAC: FINAL	8:05	24	18	18	13
TIME: END FILL	24	8:25	9:22	9:41	10:02
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE					
SAMPLE DEPTH	10'	2'	8'	3'	8'
H_2S	0.04 ppm	.003 ppm	.000 ppm	.004 ppm	.031 ppm
FID	—	10.45 ppm	—	—	—
PID	—	5.77 ppm	—	—	—

lfg sampling form

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego, CA	5/27/04	Cloudy, breezy, cool	K. Strackpow	2 of 4

	SUV	LFG	SUV	LFG	SUV
SUMMA CANISTER ID	1280	2353	1280	2353	
SAMPLE NUMBER	MB-3A	MB-4A	MB-4A	MB-1D	MB-1D
TOTAL CANISTER VACUUM (in. Hg) @ start	18	12	13	7	8
CANISTER VOLUME (L)	4L	3L	3L	2L	1L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	30.00	30.00	30.00	30.00	30.03
TIME: BEGIN PURGE	10:10	10:30	10.45	11:15	11:40
PURGE RATE	500	500	500	500	500
TIME: END PURGE	10.14	10.33	10:48	11.20	11:45
PURGE VOLUME (L) (1L in tedlar)	1L	1L	1L	1L	1L
% METHANE	27.2	46.7	43.6	34.8	00.0
% CO2	28.8	36.3	34.9	23.9	00.1
% OXYGEN	02.3	02.2	2.4	06.5	19.2
% NITROGEN (CALC)	41.5	14.8	19.1	33.6	80.6
CANISTER VAC: INITIAL	18	12	13	7	8
TIME: BEGIN FILL	10.14	10:33	10:48	11:22	11:48
CANISTER VAC: FINAL	10.21	7	8	2	3
TIME: END FILL	13	10:40	10.53	11:33	11:54
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE				69.3°F	
SAMPLE DEPTH	3'	8'	3'	13'	3'
H_2S	.024 ppm	.022	0.57	.006	.000 ppm
FID	N/A	N/A	N/A	N/A	N/A
PID	⊥	⊥	⊥	⊥	⊥

lfg sampling form

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/27/04	Cloudy, breezy cool 70'	K Stackpole	3 of 4

	LFG	SUV	LFG	SUV	LFG
SUMMA CANISTER ID	2226	3185	2296	3185	2226
SAMPLE NUMBER	MB-1E	MB-1E	MB-1F	MB-1F	MB-1G
TOTAL CANISTER VACUUM (in. Hg) (@ start)	30	29	25	24	20
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	30.03	30.03	30.06	30.06	30.06
TIME: BEGIN PURGE	12:10	12:48	1:50	2:00	2:38
PURGE RATE (ml)	500	500	500	500	500
TIME: END PURGE	12:12	12:38	1:54	2:10	2:44
PURGE VOLUME (L)	.5	.5	.5	.5	.5
% METHANE	14.2	00.0	50.4	18.6	6.1
% CO2	18.1	00.0	33.4	24.4	21.1
% OXYGEN	10.4	19.2	02.2	09.6	01.3
% NITROGEN (CALC)	57.1	80.7	12.7	47.0	71.5
CANISTER VAC: INITIAL	30	29	25	24	20
TIME: BEGIN FILL	12:16	12:39	1:56	2:11	2:39
CANISTER VAC: FINAL	25	24	20	19	15
TIME: END FILL	12:24	12:50	2:01	2:18	2:45
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE			73.6		76.4 * May not have been in hole long enough
SAMPLE DEPTH	10'	4'	10'	4'	7'
H_2S	.004	.000 ppm	0.18 ppm	0.90 ppm	0.17 ppm
FID	N/A	Couldn't ignite flame	N/A	N/A	N/A
PID	⊥	⊥	⊥	⊥	⊥

lfg sampling form

Ambient Air 0.005 ppm of H_2S @ MB-2G

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego, CA	5/27/04	Hazy, hot 78°	K. Stackpole	4 of 4

	SUR	LFG	SUR	LFG * difficult to pull samples	SUR
SUMMA CANISTER ID	3185	2226	3185	2226	
SAMPLE NUMBER	MB-1G	MB2G	MB-2G	MB-3G	MB-3G
TOTAL CANISTER VACUUM (in. Hg) (@ start)	19	15	14	9	8
CANISTER VOLUME (L)	4L	3L	3L	2L	2L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	30.06	30.06	30.06	30.06	30.06
TIME: BEGIN PURGE	2:48	3:14	3:29	3:56	4:20
PURGE RATE ml	500	500	500	500	500
TIME: END PURGE	2:51	3:18	3:36	4:06	4:22
PURGE VOLUME (L)	.5 L	.5L	.5L	.5	.5
% METHANE	5.8	57.3	2.0	3.1	0
% CO2	20.5	34.3	01.9	2.2	0.2
% OXYGEN	01.7	01.3	18.4	17.9	19.6
% NITROGEN (CALC)	72.0	07.3	77.8	76.8	80.3
CANISTER VAC: INITIAL	19	15	14	9	8
TIME: BEGIN FILL	2:53	3:17	3:38	4:06	4:28
CANISTER VAC: FINAL	14	10	9	4	4
TIME: END FILL	2:59	3:26	3:45	4:12	4:30
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE		70.2 (in hole for 4 min)			
SAMPLE DEPTH	4'	15'	4'	12'	4'
H_2S	.020 ppm	4.5 ppm	.001 ppm	.002	.002 ppm
FID	N/A	N/A	N/A	N/A	
PID	⊥	⊥	⊥	⊥	

lfg sampling form

LFG | Sur | LFG | Sur | LFG

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/28/04	Cloudy, cool	K. Stuckpole	1 of 4

SUMMA CANISTER ID	3078	2334	3078	2334	3078
SAMPLE NUMBER	MB-1H	MB-1H	MB-1I	MB-1I	MB-1J
TOTAL CANISTER VACUUM (in. Hg) @ start	29	29	24	23	18
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.97	29.97	29.97	29.97	29.93
TIME: BEGIN PURGE	8:19	8:33	9:04	9:20	9:48
PURGE RATE (ml)	500 ml	500	500	500	500
TIME: END PURGE	8:23	8:38	9:09	9:25	9:51
PURGE VOLUME (L) (plus Tedlar bag)	1L	1L	1L	1L	1L
% METHANE	24.5	0	38.1	36	19.8
% CO2	26.6	0.7	22.2	19.5	20.7
% OXYGEN	6.7	18.3	05.6	04.2	03.8
% NITROGEN (CALC)	42.0	81.0	34.5	38.1	55.5
CANISTER VAC: INITIAL	29	29	24	23	18
TIME: BEGIN FILL	8:23	8:39	9:10	9:25	9:51
CANISTER VAC: FINAL	24	24	19	18	13
TIME: END FILL	8:28	8:46	9:15	9:32	9:57
SAMPLE FILL RATE (ml/min)	~250 ml/min	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE					
SAMPLE DEPTH	5'	3'	5'	3'	5'
H_2S	0.33 ppm	.603 ppm	.045 ppm	01.8 ppm	.19 ppm
FID	N/A	—	N/A	N/A	N/A
PID	⊥	—	⊥	⊥	⊥

(562) 4269594 Gabrielle

Ambient air = .001 H_2S

SUR | LFG (airfield) | SUR (airfield) | LFG | SUR

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego, CA	9/28/04	Cloudy, cool, 65°	K. Stackpole	2 of 4

SUMMA CANISTER ID	2334	3078	2334	3078	2334
SAMPLE NUMBER	MB-1J	MB-2H	MB-2H	MB-2I	MB-2I
TOTAL CANISTER VACUUM (in. Hg) @ start	18	12	12	6	7
CANISTER VOLUME (L)	4L	3L	3L	2L	2L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.93	29.96	29.95	29.96	29.95
TIME: BEGIN PURGE	10:01	10:47	11:10	11:35	12:00
PURGE RATE (ml)	500 ml	500	500	500	500
TIME: END PURGE	10:04	10:52	11:18	11:42	12:05
PURGE VOLUME (L) (plus tedlar)	1L	1L	1L	1L	1L
% METHANE	1.4	35.7	4.4	42.3	0
% CO2	3.3	29.1	15.3	26.6	0.1
% OXYGEN	16.3	03.2	19.3	04.3	19.1
% NITROGEN (CALC)	79.5	31.9	80.2	26.7	80.7
CANISTER VAC: INITIAL	18	12	12	6	7
TIME: BEGIN FILL	10:05	10:52	11:19	11:42	12:05
CANISTER VAC: FINAL	10:12	7	7	2	2
TIME: END FILL	13	11:00	11:22	11:50	12:19
SAMPLE FILL RATE (ml/min)	~250 ml/min	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	71.8°F	too deep, cord on T° is only 10' long	—	66.4°F	—
SAMPLE DEPTH	3'	15'	4'	10'	4'
H_2S	.002 ppm	.036 ppm	.002 ppm	0.27 ppm	0 ppm
FID	N/A	N/A	N/A	N/A	unable to ignite
PID	⊥	⊥	⊥	⊥	Flame (PID readings ~6 ppm)

lfg sampling form

Recalibrate?

LFG SAMPLING FIELD FORM

	LFG	SUR	LFG	SUR	LFG
PROJECT/CLIENT	MBLF / CSD - Env. Serv. Dept				
PROJECT LOCATION	San Diego, CA				
DATE	05/28/04				
WEATHER	Cloudy, Overcast				
PERSONNEL	K. STACKPOLE				
PAGE	3 of 4				
SUMMA CANISTER ID	3036	3331	3036	3331	3036
SAMPLE NUMBER	MB-2J	MB-2J	MB-2K	MB-2K	MB-2L
TOTAL CANISTER VACUUM (in. Hg) @ start	30	29	24	23	18
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.95	29.92	29.93	29.92	29.92
TIME: BEGIN PURGE	1:20	1:46	2:13	14:35	4:00
PURGE RATE	500 ml	500	500	500	500
TIME: END PURGE	1:30	1:50	2:16	14:40	4:05
PURGE VOLUME (L) (+ tedlar)	1L	1L	1L	1L	1L
% METHANE	39.5	28.6	9.2	4.7	14.9
% CO2 (two)	28.8	26.7	19.2	16.3	22.9
% OXYGEN	02.9	03.4	02.0	03.4	02.9
% NITROGEN (CALC)	28.9	41.3	69.0	75.5	59.4
CANISTER VAC: INITIAL	30	29	24	23	18
TIME: BEGIN FILL	1:30	1:50	2:18	2:40	4:05
CANISTER VAC: FINAL	24	1:57	19	23	4:12
TIME: END FILL	1:38	24	2:23	2:50	13
SAMPLE FILL RATE (ml/min)	~250	~250	~250	≈250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	67.8°F	—	—
SAMPLE DEPTH	10'	4'	10'	4'	5'
H_2S	3.1 ppm	.11 ppm	.030 ppm	.008 ppm	0.93 ppm

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	5/28/04	Overcast, cool breezy	K. Stackpole	4 of 4

	SW	LFG	SW		
SUMMA CANISTER ID	3331	3036	3331		
SAMPLE NUMBER	MB-2L	MB-3L	MB-3L		
TOTAL CANISTER VACUUM (in. Hg) (0 start)	17	12	12		
CANISTER VOLUME (L)	4L	3L	3L		
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.92	29.92	29.92		
TIME: BEGIN PURGE	4:17	5:15	5:30		
PURGE RATE (ml)	500ml	500	500		
TIME: END PURGE	4:21	5:20	5:42		
PURGE VOLUME (L)	1L	1L	1L		
% METHANE	13.2	2.8	0		
% CO2	23.4	19.7	[illegible]		
% OXYGEN	02.4	0.8	17.2		
% NITROGEN (CALC)	60.8	76.8	80.3		
CANISTER VAC: INITIAL	17	12	12		
TIME: BEGIN FILL	4:21	5:20	5:42		
CANISTER VAC: FINAL	12	7	7		
TIME: END FILL	4:27	5:28	5:58		
SAMPLE FILL RATE (ml/min)	~250	~250	~250		
SAMPLE VOLUME (L)	1L	1L	1L		
SAMPLE TEMPERATURE	—	—	—		
SAMPLE DEPTH	3'	12'	3'		
H_2S	0.14 ppm	.005 ppm	.001 ppm		

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD-ESD	San Diego	6/1/04	Sunny, Warm 60°	K. Stackpole	1 of 2

	LFG	SW	LFG	SW	LFG
SUMMA CANISTER ID	2657	3327	2657	3327	2657
SAMPLE NUMBER	MB-3M	MB-3M	MB-4M	MB-4M	MB-2M
TOTAL CANISTER VACUUM (in. Hg) @ start	28	29	22	24	16.5
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.79	29.79	29.79	29.77	29.81
TIME: BEGIN PURGE	8:09	8:34	9:05	9:30	11:10
PURGE RATE	500 cc	500	500	500	500
TIME: END PURGE	8:10	8:39	8:10	9:33	11:14
PURGE VOLUME (L) (+ tedlar)	1L	1L	1L	1L	1L
% METHANE	20.9	0	2.1	0	22.9
% CO2	22.6	1.0	9.4	.5	27.3
% OXYGEN	02.8	18.2	4.5	18.5	02.6
% NITROGEN (CALC)	53.4	80.9	83.9	81	42.1
CANISTER VAC: INITIAL	28	29	22	24	16.5
TIME: BEGIN FILL	8:17	8:39	9:11	9:34	11:14
CANISTER VAC: FINAL	22	24	17	19	11.5
TIME: END FILL	8:28	8:45	9:19	9:38	11:21
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	—	—	—
SAMPLE DEPTH	12'	3'	16'	3'	10'
H_2S	.001 ppm	0 ppm	.001 ppm	.001 ppm	21.0 ppm
FID / PID	{Waiting for H gas delivery} (yes)				lfg sampling form N/A (CH4 present)

PID background
@ MB-2M = 1.82 ppm
FID = .30 ppm

*FID/PID not used for sample reading when City present

SUR LFG SUR LFG SUR Karen

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF/CSD, Env Services	San Diego, CA	6/1/04	Sunny, Warm	K. Stackpole	2 of 2

SUMMA CANISTER ID	3327	2657	3327	2657	3327
SAMPLE NUMBER	MB-2M	MB-1N	MB-1N	MB-1L	MB-1L
TOTAL CANISTER VACUUM (in. Hg) @ Start	19	11	14	6	8
CANISTER VOLUME (L)	4L	3L	3L	2L	2L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.81	29.81	29.81	29.82	29.82
TIME: BEGIN PURGE	11:28	12:25	12:43	1:20	1:45
PURGE RATE (ml)	500 ml	500	500	500	500
TIME: END PURGE	11:31	12:29	12:47	1:28	1:49
PURGE VOLUME (L) (+ bedlar)	1L	1L	1L	1L	1L
% METHANE	0	24.7	22.7	16.9	0.1
% CO2	9.3	25.0	20.7	19.5	1.3
% OXYGEN	10.1	0.5	01.5	01.0	18.4
% NITROGEN (CALC)	80.6	49.8	55.2	62.4	80.3
CANISTER VAC: INITIAL	19	11	14	6	8
TIME: BEGIN FILL	11:32	12:29	12:47	1:29	1:50
CANISTER VAC: FINAL	14	6	9	1	3
TIME: END FILL	11:37	12:37	12:53	1:39	2:00
SAMPLE FILL RATE (ml/min)	≈250cc	≈250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	—	—	—
SAMPLE DEPTH	4'	10'	4'	10'	3'
H_2S	.020 ppm	0.29 ppm	0.30 ppm	3.7 ppm	
FID	23.97 ppm	—	—	—	41 (max) ppm lfg sampling form
PID	3.45 ppm	—	—	—	4.40 ppm

LFG | SVR | LFG | SVR | LFG

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD, ESD.	San Diego, CA	6/2/04	Overcast, 63°	K. Stackpole	1 of

SUMMA CANISTER ID	3325	2587	3325	2587	3325
SAMPLE NUMBER	MB-1M	MB-1M	MB-4N	MB-4N	MB-3N
TOTAL CANISTER VACUUM (in. Hg) @ start	29	28	25	24	20
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.79	29.79	29.79	29.77	29.77
TIME: BEGIN PURGE	8:30	8:50	9:56	10:13	10:03
PURGE RATE (ml)	500 cc	500	500	500	500
TIME: END PURGE	8:35	8:54	9:59	10:17	10:06
PURGE VOLUME (L) (+ tedlar)	1L	1L	1L	1L	1L
% METHANE	41.0	2.9	0.7	0	1.6
% CO2	29.6	18.8	4.4	0.5	01.1
% OXYGEN	0.4	01.5	11.7	18.7	18.6
% NITROGEN (CALC)	29.1	77.0	83.1	80.3	78.7
CANISTER VAC: INITIAL	29	28	25	24	15
TIME: BEGIN FILL	8:35	8:54	~~10:06~~ 9:59	10:18	10:06
CANISTER VAC: FINAL	24	23	20	19	20
TIME: END FILL	8:44	9:01	10:06	10:23	11:13
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	—	—	—
SAMPLE DEPTH	10'	3'	15'	4'	6.5' (refusal)
H_2S	.043 ppm	.060 ppm	0 ppm	0 ppm	0 ppm
PID	—	—	3.75 ppm	4.1 ppm	lfg sampling form
FID	—	—	23.97 ppm	11.1 ppm	exceeded alarm

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LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD, ESB	San Diego, CA	6/2/04	Sunny, sl breeze 75°	K. Stackpole	2 of 4

SUMMA CANISTER ID	2587	3325	2587	3325	2587
SAMPLE NUMBER	MB-3N	MB-2N	MB-2N	MB-10	MB-10
TOTAL CANISTER VACUUM (in. Hg)	4L	14	3L	3L	3L
CANISTER VOLUME (L)	19	3L	14	9	9
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.79	29.79	29.81	29.82	29.82
TIME: BEGIN PURGE	11:22	11:32	11:43	12:45	11:04
PURGE RATE (ml)	500	500	500	500	500
TIME: END PURGE	11:25	11:35	11:49	12:50	11:08
PURGE VOLUME (L)	1L	1L	1L	1L	1L
% METHANE	14.4	14.2	0	8.9	0
% CO2	10.3	29.1	11.5	5.3	0
% OXYGEN	11.0	0.6	10.2	11.2	18.8
% NITROGEN (CALC)	64.7	56.0	78.3	75.1	80.8
CANISTER VAC: INITIAL	19	14	14	9	9
TIME: BEGIN FILL	11:25	11:36	11:50	12:51	11:08
CANISTER VAC: FINAL	14	9	9	4	4
TIME: END FILL	11:30	11:40	12:00	1:04	1:13
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	—	—	—
SAMPLE DEPTH	3'	7'	3'	6.5'	3'
H_2S	0.39	1.8 ppm	0.11 ppm	0.26 ppm	.002 ppm
PID	—	—	4.77 ppm	— 3.96 ppm	3.86 ppm
FID	—	—	7.09 ppm	— in breathing zone	17.41 ppm

LFG | SUR | LFG | SUR | LFG

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD, SSB	San Diego	6/2/04	Sunny, hot 80°	K. Stackpole	3 of 4

SUMMA CANISTER ID	3426	3416	3426	3416	3426
SAMPLE NUMBER	MB-1P	MB-1P	MB-20	MB-20	MB-30
TOTAL CANISTER VACUUM (in. Hg)	30 in. hg.	29	24	25	18.5
CANISTER VOLUME (L)	6L	6L	5L	5L	4L
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.82	29.82	29.82	29.81	29.81
TIME: BEGIN PURGE	1:25	1:53	2:25	2:44	3:13
PURGE RATE	500	500	500	500	500
TIME: END PURGE	1:40	1:55	2:32	2:48	3:20
PURGE VOLUME (L)	1L	1L	1L	1L	1L
% METHANE	1.6	0	7.0	0	13.5
% CO2	15.49	2.8	7.5	0.2	20.4 ~~13.5~~
% OXYGEN	1.2	15.9	10.8	19.0	00.5 ~~20.4~~
% NITROGEN (CALC)	81.6	81.2	74.7	80.8	65.6 ~~00.5~~
CANISTER VAC: INITIAL	30	29	24	25	~~65.6~~ 18.5
TIME: BEGIN FILL	1:41	1:56	2:33	2:48	3:20
CANISTER VAC: FINAL	27	25	19	20	13
TIME: END FILL	1:52	2:01	2:40	2:54	3:25
SAMPLE FILL RATE (ml/min)	~250	~250	~250	~250	~250
SAMPLE VOLUME (L)	1L	1L	1L	1L	1L
SAMPLE TEMPERATURE	—	—	—	—	—
SAMPLE DEPTH	10'	3'	10'	3'	18'
H_2S	.001	.009	.051 ppm	.001 ppm	0.57 ppm
PID	7.6 ppm	3.3 ppm	—	8.81 ppm	—
FID	exceeded alarm	21.14 ppm	—	14.14 ppm	—

lfg sampling form

SUR LFG SUR LFG SUR

LFG SAMPLING FIELD FORM

PROJECT/CLIENT	PROJECT LOCATION	DATE	WEATHER	PERSONNEL	PAGE
MBLF / CSD, ESD	San Diego, CA	6/2/04	Sunny, hot 80°	K. Stracsephen	4 of 4

SUMMA CANISTER ID	3416	3426	3416		
SAMPLE NUMBER	MB-30	MB-40	MB-40		
TOTAL CANISTER VACUUM (in. Hg) @ start	19	12	14		
CANISTER VOLUME (L)	4L	3L	3L		
CANISTER VACUUM/VOL (in. Hg/L)					
BAROMETRIC PRESSURE	29.81	29.80	29.80		
TIME: BEGIN PURGE	3:25	4:02	4:15		
PURGE RATE (ml)	500	500	500		
TIME: END PURGE	3:31	4:06	4:19		
PURGE VOLUME (L)	1L	1L	1L		
% METHANE	0	23.1	0		
% CO2	1.7	18.1	0.3		
% OXYGEN	16.5	1.8	18.7		
% NITROGEN (CALC)	81.7	57.0	81.0		
CANISTER VAC: INITIAL	19	12	14		
TIME: BEGIN FILL	3:32	4:07	4:19		
CANISTER VAC: FINAL	14	7	9		
TIME: END FILL	3:44	4:14	4:25		
SAMPLE FILL RATE (ml/min)	~250	~250	~250		
SAMPLE VOLUME (L)	1L	1L	1L		
SAMPLE TEMPERATURE	—				
SAMPLE DEPTH	3'	6'	3'		
H_2S	.011	0.37	.008		
PID	6.97 ppm	—	2.1 ppm		
FID	2.7 ppm	—	3.64 ppm (max)		

lfg sampling form