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Attorneys for Intervenors KO OLINA COMMUNITY ASSOCIATION and MAILE SHIMABUKURO '11 DEC 30 P2:03

DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONELU

BEFORE THE PLANNING COMMISSION

OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAI'I

In the Matter of the Application of

DEPARTMENT OF ENVIRONMENTAL SERVICES, CITY AND COUNTY OF HONOLULU

To delete Condition No. 14 of Special Use Permit No. 2008/SUP-2 (also referred to as Land Use Commission Docket No. SP09-403) which states as follows:

"14. Municipal solid waste shall be allowed at the WGSL up to July 31, 2012, provided that only ash and residue from H-POWER shall be allowed at the WGSL after July 31, 2012."

FILE NO. 2008/SUP-2

INTERVENORS KO OLINA COMMUNITY ASSOCIATION AND MAILE SHIMABUKURO'S SECOND AMENDED EXHIBIT LIST

EXHIBITS K156-K158

CERTIFICATE OF SERVICE

INTERVENORS KO OLINA COMMUNITY ASSOCIATION AND MAILE SHIMABUKURO'S SECOND AMENDED EXHIBIT LIST

Intervenors Ko Olina Community Association and Maile Shimabukuro (together

"Intervenors") submit their second amended exhibit. Intervenors may introduce

KOCA 21

the following exhibits and reserve the right to amend or supplement this list as additional exhibits are identified:

Exhibit N	o.	Ollerea for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K1					March 13, 2003 Findings of Fact,	
	j				Conclusions, and Decision by the	1
					Planning Commission	
K2					June 5, 2003 Decision and Order	
					Approving Amendment to Special	
					Use Permit by the Land Use	
77.0					Commission	-
K3					January 16, 2008 Findings of Fact,	
					Conclusions of law, and Decision	
					and Order by the Planning	
TZA					Commission	
K4					March 13, 2008 Findings of Fact,	
					Conclusions of Law, and Decision by the Planning Commission	
K5					October 2008 Final Environmental	
Ko					Impact Statement re Waimanalo	
					Gulch Sanitary Landfill Lateral	
					Expansion by R.M. Towill	
					Corporation (excerpts)	
K6					April 3, 2009 Letter from Abbey	
110					Seth Mayer to David K. Tanoue	
K7					June 22, 2009 Transcript of the	
					Contested Case Hearing Before	
	ŀ				the Planning Commission	
	İ				(excerpts)	
K8					June 24, 2009 Transcript of the	
					Contested Case Hearing Before	
					the Planning Commission	
					(excerpts)	
K9					July 1, 2009 Transcript of the	
			-		Contested Case Hearing Before	
			-	}	the Planning Commission	
Ş			-		(excerpts)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K10			5.	July 2, 2009 Transcript of the Contested Case Hearing Before the Planning Commission (excerpts)	
K11				July 8, 2009 Transcript of the Contested Case Hearing Before the Planning Commission (excerpts)	
K12				August 4, 2009 Findings of Fact, Conclusions of Law, and Decision and Order by the Planning Commission	
K13				September 22, 2009 Letter from Abbey Seth Mayer to Ransom Plitz	
K14				September 24, 2009 Transcript of Proceedings Before the Land Use Commission (excerpts)	
K15				October 22, 2009 Order Adopting the City and County of Planning Commission's Findings of Fact, Conclusions of Law and Decision and Order with Modifications by the Land Use Commission	
K16				January 22, 2010 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	
K17	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		April 12, 2010 Appellee Land Use Commission's Answering Brief in Department of Environmental Services v. Land Use Commission, Civ. No. 09-102719-11 (Haw. 1st Cir. Ct.) (excerpts)	
K18		•		April 21, 2010 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K19	(#)	***		Dwight E. Miller, PE Resume and Project Litigation and Expert Witness Experience	
K20				September 21, 2010 Order Affirming Land Use Commission's Order Adopting the City and County of Planning Commission's Findings of Fact, Conclusions of Law, and Decision and Order dated October 22, 2009 with Modifications in Department of Environmental Services v. Land Use Commission, Civ. No. 09-1- 2719-11 (Haw. 1st Cir. Ct.)	
K21				October 19, 2010 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	
K22				January 2011 Fiscal & Economic Benefits Analysis Prepared for Ko Olina Resort Operators Association Prepared by CBRE Strategic Consulting	
K23				January 13, 2011 News Release re Landfill Flooding Affects Waters Between Ko Olina and Kahe Power Plant by the Department of Health	
K24				Proposed Revised Ewa Development Plan	
K25	£300 8	12 9AT -	THE RESIDENCE AND	January 18, 2011 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	
K26	-			January 20, 2011 Meeting No. 1 Materials for the Mayor's Advisory Committee on Landfill Site Selection	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K27				January 20, 2011 Meeting No. 1 Group Memory by the Mayor's Advisory Committee on Landfill Site Selection	2 2
K28				January 26, 2011 Letter from Ronald E. Boyle of AECOM Technical Services, Inc. to Waste Management of Hawaii	
K29				March 10, 2011 Meeting No. 3 Group Memory by Mayor's Advisory Committee on Landfill Site Selection	
K30				March 31, 2011 Meeting No. 4 Agenda and Materials for the Mayor's Advisory Committee on Landfill Site Selection	
K31				March 31, 2011 Meeting No. 4 Group Memory by the Mayor's Advisory Committee on Landfill Site Selection	
K32				April 18, 2011 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	
K33				May 12, 2011 Meeting No. 5 Group Memory by the Mayor's Advisory Committee on Landfill Site Selection	
K34				June 1, 2011 Letter from Timothy E. Steinberger to Vladimir P. Devine	
K35			1965	July 18, 2011 Status Report on Reducing and/or Continuing the Use of Waimanalo Gulch Sanitary Landfill (WGSL)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K36			AMERICAL III	July 25, 2011 Letter from S.B. Teramoto of the Association of Apartment Owners of the Coconut Plantation in the Ko Olina Resort and Marina the Coconut Plantation to David K. Tanoue	·· 5 8
K37				August 9, 2011 Letter from Mario Beekes to David K. Tanoue	
K38				August 8, 2011 Letter from Ken Williams of Ko Olina Community Association to David K. Tanoue	
K39				August 10, 2011 Letter from Duke Hospodar of Resort Operations- LLC to David Tanoue	
K40				August 10, 2011 Letter from Mona Abadir of Honu Group Communications, LLC to David K. Tanoue	
K41				August 10, 2011 Letter from Ralph F. Harris of Ko Olina Fairways – Association of Apartment Owners to David K. Tanoue	
K42				August 11, 2011 Letter from Alan Nakamura of Ko Olina Golf Course to David K. Tanoue	
K43				August 12, 2011 Letter from Jo Jordan of the Hawai'i House of Representatives to the Department of Planning and Permitting	
K44		w Ab		August 12, 2011 Letter from Joseph Yamaoka of Resort Management Company LLC to David K. Tanoue	
K45				August 13, 2011 Letter from Masaki Nagamine of Watabe Wedding Corporation to David K. Tanoue	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K46		- ALTERNATION - 100	1-	August 13, 2011 Letter from Colleen Hanabusa to David K. Tanoue	
K47				August 17, 2011 Letter from Leland Ribac for George S. Yamamoto of the Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 to David K. Tanoue	
K48				December 7, 2007 Settlement Agreement between the Department of Health, Waste Management of Hawaii, Inc., and the City	
K49	į			December 15, 2010 Letter from Justin Lottig to Lene Ichinotsubo with Attachment	
K50		·		December 19, 2010 Incident Alert Form	
K51				December 21, 2010 Email from Justin Lottig to Thomas Miyashiro	
K52				December 23, 2010 Investigation Report by the Department of Health, Clean Water Branch	
K53				December 30, 2010 Email from Justin Lottig to Lene Ichinotsubo with Attachments	
K54				January 12, 2011 Email from Joanna Seto to Timothy Steinberger	
K55				January 12, 2011 Email from Timothy Steinberger to Joanna Seto with Attachment	
K56				January 12 and 13, 2011 Station Summary Palehua Hawaii	
K57				2003 and 2004 Articles regarding R.M. Towill	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K58	8 2 16			December 1, 2003 Report of Mayor's Advisory Committee (Blue Ribbon Committee) on Landfill Site Selection without Attachments	e e e e
K59				January 31, 2006 Letter from Laurence K. Lau to Paul Burns and Eric Takamura with Enclosures	
K60	li .			April 5, 2006 Letter from Deborah Jordan to Paul Burns and Eric S. Takamura with Enclosure	i d
K61				December 18, 2006 Article, Firms land contracts despite donation fines, Honolulu Advertiser, by Rick Daysog	
K62				March 12, 2008 Engineering Report for Landfill Expansion: Waimanalo Gulch Landfill, Ewa Beach, Oahu, Hawaii prepared by Geosyntec Consultants without Appendices	
K63				March 2009 Second 6-Month Report Status of Operations Waimanalo Gulch Sanitary Landfill and Actions Taken to Further Reduce Waste Volumes Disposed of at the Landfill	
K64				September 2009 Third 6-Month Report Status of Operations Waimanalo Gulch Sanitary Landfill and Actions Taken to Further Reduce Waste Volumes	
K65				Disposed of at the Landfill. May 12, 2010 Letter from Wilfred K. Nagamine to Joe Whelan	# # # # # # # # # # # # # # # # # # #

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K66		12		May 13, 2010 Letter from	
120 tes 2 2 10		90 " #1659 T 10		Laurence K. Lau to Joe Whelan	
				and Timothy Steinberger with	
				Enclosures	
K67				September 15, 2010 Article, The	
				super \$6K club part II: Engineers	
				vs. Educators: Abercrombie racks	
				up big bucks as election day draws	
				near, by Alan D. McNarie	
K68				March 31, 2011 City & County of	
				Honolulu Mayor's Advisory	
				Committee on Landfill Site	
1				Selection Agenda with	
		i		Attachments	
K69				April 20, 1987 Findings of Fact,	
				Conclusions of Law and Decision	
				and Order by the Land Use	
				Commission	
K70				October 31, 1989 Findings of Fact,	
		1		Conclusions of Law and Decision	
				and Order by the Land Use	
				Commission	
K71			İ	July 6, 2007 Planning Division	
				Master Application Form	
				(excerpts)	
K72				July 31, 2009 Meeting of the	
			ŀ	Planning Commission Transcripts	
				(excerpts)	
K73				January 27, 2011 Article, No	
				Paperwork to Back Up Safety of	59
				Medical Waste, by Adrienne	
				LaFrance	
K74				November 21, 2011 Article, City	
V MV SEL - SELECT TO SERVICE S		1	-= -	Pays Landfill Operator \$2.6M for	2 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
				Spill Cleanup, by Michael Levine,	3+ 5 /
				with Attachment	

Exhibit No.	Offered for Identification	4	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K75	.000				January 25, 2011 Administrative	
			-		Order on Consent for Removal	
					Action by the Environmental	
					Protection Agency and Waste	
					Management of Hawaii, Inc.	
K76					May 25, 2005 Letter from Eric S.	
					Takamura to Anthony Ching	
K77					February 2, 2011 Transcript of	
					Proceedings Before the Land Use	
					Commission	
K78					January 28, 2011 Article,	
					Stormwater Released Into Ocean	
		-			to Avoid Larger Landfill	
					Catastrophe, by Michael Levine	
K79					November 30, 2011 Article, EPA	
					Orders Additional Safeguards at	
		l		1	Waimanalo Gulch Landfill, by	
					Adrienne LaFrance	
K80					January 17, 2011 More Medical	
	ŀ				Waste Wash On West Shores 5	
					Days After Landfill Spill, by	
					KITV.com	
K81					April 21, 2006 Transcript of	
		- 1			Proceedings Before the Land Use	
		_			Commission (excerpts)	
K82					September 5, 2008 Letter from	
					Thomas E. Arizumi to Joseph	
3		\perp		ļ	Whelan and Eric Takamura	
K83					March 6, 2008 Transcript of	
					Proceedings Before the Land Use	
		_		ļ	Commission (excerpts)	
K84					March 7, 2008 Transcript of	
					Proceedings Before the Land Use	
H 931			*		Commission (excerpts)	
K85					March 27, 2003 Hearing	,
					Transcript Before the Land Use	
					Commission (excerpts)	£

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K86		55		May 12, 2011 Final Criteria List for the Mayor's Advisory Committee on Landfill Site Selection	0
K87				June 22, 2004 Letter from Frank J. Doyle to Anthony J.H. Ching	
K88		-		July 30, 2004 Letter from Frank J. Doyle to Anthony J.H. Ching	
K89				November 30, 2004 Letter from Frank J. Doyle to Anthony J.H. Ching	
K90				March 1, 2006 Letter from Anthony J.H. Ching to Eric S. Takamura	
K91				July 2010 First Annual Report, Status of Actions Taken to Satisfy the State Land Use Commission's Order Dated October 22, 2009 and Status of Operations Waimanalo Gulch Sanitary Landfill	
K92				June 1, 2011 Second Annual Report, Status of Actions Taken to Satisfy the State Land Use Commission's Order Dated October 22, 2009 and Status of Operations Waimanalo Gulch Sanitary Landfill	
K93				September 2008 6-Month Report Status of Operations, Waimanalo Gulch Sanitary Landfill and Actions Taken to Further Reduce Waste Volumes Disposed of at the Landfill (excerpts)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K94	3 30000			October 22, 2009 Order Adopting the City & County of Honolulu Planning Commission's Findings of Fact, Conclusions of Law, and Decision and Order with Modifications by the Land Use Commission	
K95				September 23, 2009 Letter from Maeda C. Timson to the Land Use Commission	
K96				August 16, 2011 Draft Regular Meeting Minutes by the Nanakuli- Maili Neighborhood Board No. 36	
K97				May 2, 2011 Letter from Steven Chang to Joseph Whelan and Timothy Steinberger	
K98				December 1, 2011 Article, City Ordered to Improve Monitoring at Landfill, by Gary T. Kubota	
K99			-	January 2011 Articles from KHON, Hawaii News Now, Star Advertiser re Landfill spill	
K100				July 6, 2009 Declaration of Gary Y. Takeuchi with attached Environmental Impact Statement	
K101				October 25, 2006 Warning letter from Thomas E. Arizumi to Paul Burns & the Honorable Eric Takamura	
K102				Photographs of Ko Olina Lagoons	
K103				Photographs of Ko Olina Clean-Up Efforts (some photographs stamped with dates photographs were taken)	
K104				Photographs of Ko Olina Clean-Up Efforts – Before and After	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K105	- #35#90			Photographs of Debris (photographs stamped with dates photographs were taken)	
K106				Photographs of Empty Beaches (photographs stamped with dates photographs were taken)	
K107				Photographs of Landfill Drainage	
K108				Photographs of Medical Waste (some photographs stamped with dates photographs were taken)	
K109				Photographs of Muddy Waters (photographs stamped with dates photographs were taken)	
K110				Videos of Ko Olina Clean-Up Efforts: K110a: January 20, 2011 Video K110b: January 20, 2011 Video K110c: January 14, 2011 Video K110d: January 14, 2011 Video K110e: January 18, 2011 Video K110f: January 18, 2011 Video K110g: January 20, 2011 Video K110h: January 14, 2011 Video	
K111				Photographs of Trash from the Landfill at Ko Olina (photographs stamped with dates photographs were taken)	
K112				Photographs of Views of the Landfill from Ko Olina (some photographs stamped with dates photographs were taken)	
K113	F		E-	Photograph of a Warning Sign (photograph stamped with date	
K114				Photograph was taken) Photograph of a Wedding (photograph stamped with date photograph was taken)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K115	200 N	mtss: (#) - its		August 12, 2011 Letter from Alex Duarte to David K. Tanoue	
K116				August 12, 2011 Letter from Lance Jeffery to David Tanoue	
K117				July 20, 2011 Letter from William and Sara Barnes to David Tanoue	
K118				August 1, 2011 Letter from Harriet Bloom to David Tanoue	
K119				August 15, 2011 Letter from James Handsel to David Tanoue	
K120				August 12, 2011 Email from Greg Nichols to David Tanoue	
K121				August 12, 2011 Letter from Chuck Krause to David Tanoue	
K122				August 11, 2011 Letter from Pieter and Claire van Wingerden to David Tanoue	
K123				November 29, 2011 Letter from Alexis Strauss to Timothy Steinberger and Joseph Whelan	
K124				2011 Filings in Confederated Tribes and Bands of the Yamaka Nation v. United States Dep't of Agriculture, No. CV-10-3050-EFS (E.D. Wash.)	
K125				May 3, 2007 Letter from Thomas E. Arizumi to Paul Burns and the Honorable Eric Takamura	
K126				February 24, 2006, 2006 State of the City Address, by Mufi Hanneman	
K127		340		Photographs of Stones at Waimanalo Gulch Sanitary Landfill (photographs stamped with dates photographs were taken)	

	-,	т	7		1
Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K128				November 30, 2011 Petition to	
	er e er	8 1 8	9.0	Close Waimanalo Gulch Landfill	150 550
				and Locate Landfill Operations	
				Outside District 1	
K129				Photographs of Stones at	
				Waimanalo Gulch Sanitary	
			İ	Landfill (photographs stamped	
				with dates photographs were	
				taken)	
K130				October 9, 2007 Book excerpt by	
				Shad Kane, Waimanalo:	
				Navigational Stones	
K131				March 17, 2011 PBSHawaii.org	
				video on Insights, Where Should	
				Garbage Go	
K132				1981 and 1983 Ewa Development	
				Plans (excerpts)	
K133				News Videos Regarding the	
				January 2011 Spill:	
				K133a: January 14, 2011	
				KHON 2 Video	
				K133b: January 15, 2011	
				KHON 2 Video	
				K133c: January 22, 2011	
				KITV 4 Video	
K134				Letters from Ken Williams to Joe	
				Whelan	
K135		j		April 13, 2008 E-mail String re	
				Report of Debris Flying from	
				City/County Vehicle	
K136				March 20, 2007 Letter from	
				Edward R. Appleby to Todd Apo	
K137		- Film (W)		June 14, 2010 Letter from Ken	
				Williams to Joe Whelan re Foul	
TT				Odors, dust and Noise	2"
K138				January 24, 2011 Waimanalo	
				Gulch Landfill Spill Investigation	
				Follow-Up	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K139				April 12, 2011 Invoice from Ko	
2015	100 - 100			Olina Operations, LLC to Ko	
				Olina Community Association	
K140				January 18, 2011 E-mail String re	
				Landfill Runoff into the Ocean	
K141				January 19, 2011 E-mail String re	
				Procedure for Disposal of Medical	
				Waste and Landfill Concerns	
K142				January 20, 2011 Email string re	
İ				Procedure for Disposal of Medical	
				Waste and Landfill Concerns	
K143				February 2, 2011Email string re:	
				Landfill issue	
K144				October 2008 Integrated Solid	
ć.				Waste Management Plan Update	
				Prepared for City & County of	
				Honolulu, Hawaii (excerpts)	
K145				April 2000 New Systems Research	
				for Refuse Disposal, prepared by	
				R.M. Towill Corporation (excerpt)	
K146				Waimanalo Gulch Sanitary	
				Landfill Design and Operation	
				Review Technical Memorandum	
				prepared by Parametrix and	
				approved by Dwight Miller	
K147				Site Selection Evaluation	
	İ			Technical Memorandum prepared	
4				by Parametrix and approved by	
				Dwight Miller	
K148				Waimanalo Gulch Landfill	
	. 81			Alternatives Analysis Technical	
				Memorandum prepared by	
				Parametrix and approved by	
	(4) (4) (4) (1) (4)	- Francisco (26) - 10	×(40)	Dwight Miller	
K149				July 21, 2010 Status Report on	
				Reducing and/or Continuing the	
±\$1.		1	-	Use of Waimanalo Gulch Sanitary	
				Landfill (WGSL)	

Exhibit No.	Offered for Identification	Received in Evidence	Withdrawn	Description	Date R=Returned D=Destroyed Other Comments
K150	101 UTG	200		February 2, 2011 Land Use	es:
The country of the control of the co	Table	- detection		Commission Status Report on	
				Waimanalo Gulch Sanitary	
				Landfill	
K151				April 2010 AECOM Surface Water	
				Management Plan Waimanalo	
				Gulch Sanitary Landfill Kapolei,	
				Oʻahu, Hawaii	
K152				November 8, 2011 Landfill	
				Meeting 7 Group Memory	
K153				November 8, 2011 Landfill	
				Meeting Handout, Landfill Site	
				Selection Study GIS Assessment,	
				Mayor's Advisory Committee on	
				Landfill Site Selection 2011	
K154				Photos from the Department of	
				Health Clean Water Branch	
				(photographs stamped with dates	1
				photographs were taken)	
K155				March 14, 2008 Findings of Fact,	
				Conclusions of Law, and Decision	
				and Order Adopting with	
				Modifications, the City and	
			-	County of Honolulu Planning	
				Commission's Recommendation to	
				Approve Amendment to Special	
				Use Permit by the Land Use	
				Commission	
K156				December 29, 2011 Letter from	
T7				Ken Williams to Joe Whelan	
K157				August 30, 2011 Letter from	
				Timothy E. Steinberger to Ronald	
T74.70		. W		Ho and John Brock with enclosure	
K158		75-20		August 18, 2011 Letter from	The second secon
				Justin H. Lottig to John Brock and	
				Ronald Ho	

DATED: Honolulu, Hawai'i, December 30, 2011.

CADES SCHUTTE A Limited Liability Law Partnership

CALVERT G. CHIPCHASE CHRISTOPHER T. GOODIN

Attorneys for Intervenors KO OLINA COMMUNITY ASSOCIATION and MAILE SHIMABUKURO

DEPARTMENT OF ENVIRONMENTAL SERVICES

CITY AND COUNTY OF HONOLULU

1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707 TELEPHONE: (808) 768-3486 ● FAX: (808) 768-3487 ● WEBSITE: http://envhonolulu.org



PETER B. CARLISLE MAYOR



TIMOTHY E. STEINBERGER, P.E. DIRECTOR

MANUEL S. LANUEVO, P.E., LEED AP DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E. DEPUTY DIRECTOR

IN REPLY REFER TO: DIR 11-016

August 30, 2011

Mr. Ronald Ho Clean Air Branch Environmental Management Division Hawaii Department of Health 919 Ala Moana Blvd., Suite 203 Honolulu, HI 96814 Mr. John Brock Air Enforcement Office US EPA, Region IX 75 Hawthorne Street San Francisco, CA 94105

Subject: Semi-Annual Report for the Period of January 1, 2011 through June 30, 2011 Waimanalo Gulch Municipal Solid Waste Landfill Covered Source Permit No. 0489-01-C

Dear Mr. Ho and Mr. Brock:

Pursuant to Condition G.2 in Covered Source Permit (CSP) Number 0489-01-C issued to the City and County of Honolulu for the Waimanalo Gulch Municipal Solid Waste Landfill (WGSL) and 40 CFR §60.757, this semi-annual report is hereby being submitted.

This semiannual report covers the period of January 1, 2011 through June 30, 2011 and uses the following forms as required by Condition G.2 of the CSP:

Monitoring Report Form, Collection and Control System Monitoring Report Form, Visible Emissions

Based on information recently provided by the City's contractor (Waste Management of Hawaii, Inc. (WMH)), certain monthly wellhead monitoring data was not recorded for a number of wells in several months in the first half of 2011. As a result, the values reported for the 6-month averages and maximums are based on only the values for the wells and sampling events that WMH has verified were actually measured. This report includes additional information explaining this issue.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information

Mr. Ronald Ho Mr. John Brock August 30, 2011 Page 2

not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Sincerely,

Timothy E. Steinberger, P.E.

Director

Enclosure

Joseph Whelan, Waste Management of Hawaii CC:

Justin Lottig, Waste Management of Hawaii Christian Colline, Waste Management

WAIMANALO GULCH SANITARY LANDFILL

Covered Source Permit No. 0489-01-C

Semi-Annual Report
January 1, 2011 through June 30, 2011

August 29, 2011

Prepared for:

City and County of Honolulu and Waste Management of Hawaii, Inc. 92-460 Farrington Hwy Kapolei, HI 96707

Prepared by:



I30 E. Main Street Caledonia, MI 493I6 Phone: 6I6-89I-5873 Fax: 6I6-89I-5720 www.EILLLC.com

INTRODUCTION

This semi-annual report has been prepared pursuant to Condition G.2 in Covered Source Permit (CSP) Number 0489-01-C issued to the City and County of Honolulu for the Waimanalo Gulch Sanitary Landfill (WGSL) and 40 CFR §60.757 and covers the period of January 1, 2011 through June 30, 2011.

Included as Attachments are the specific reporting forms required pursuant to Condition G.2:

Attachment 1 - Monitoring Report Form "Collection and Control System"

Attachment 2 - Monitoring Report Form "Visible Emissions"

Attachment 3 - Available Monitoring Data

Attachment 4 - Monitoring Data

Attachment 5 - Monitoring Data (August 2011)

RECORD KEEPING AND REPORTING

Records are maintained and available for inspection in accordance with CSP Condition F.8 and 40 CFR §60.758. The primary location for records storage is at the WGSL.

Records are maintained at this location for a minimum of five years.

SEMI-ANNUAL MONITORING REPORT

The following information is included on the monitoring forms as required pursuant to Condition G.2 that also includes information as required in Special Condition G.3.

Section 1 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.a. Value, date, time, and duration of each exceedance of applicable parameters for:

- Gauge pressure in the gas collection header;
- Nitrogen or oxygen concentration in the landfill gas;
- Temperature of the landfill gas; and
- Surface concentrations of methane

Condition G.2.b.ix.

... all instances of non-compliance, indicate the dates, times, duration, and reason;

- The flare was shut down on 6/21/11 to accommodate flare inspection and maintenance. A 24-Hour notification for this event was not submitted to the Hawaii Department of Health preceding the manual shutdown as required by CSP Standard Condition 16.
- In early August 2011, the City's contractor, Waste Management of Hawaii, Inc., identified suspected non-compliance with the NSPS landfill gas wellhead monitoring requirements and undertook an investigation. On August 26, 2011, a

WMH employee admitted that he had failed to take a large number of wellhead readings and instead fabricated those readings. WMH has terminated that employee and is undertaking further investigation to determine the scope of noncompliance and whether there is other valid data that can replace the missing data. As a result, the values reported for the 6-month average and maximum gauge pressures, oxygen concentrations, and temperatures are based on only the values for those wells and sampling events that were actually measured. Attachment 3 identifies the wells and months for which data is available. Attachment 4 presents the available data for January-June 2011. This report does not include data that WMH reasonably suspects or has confirmed is not actual data taken for the wells. Also attached is Attachment 5 with recorded data for August 2011.

Note that surface concentration data is included in Section 6 of Monitoring Report Form "Collection and Control System" are not in this section because the requested information is identical.

Section 2 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.2.b.i, ii, iii, and iv.

- i. Average and maximum gauge pressure within each gas extraction well measured over 6-month period;
- ii. Average and maximum nitrogen concentration average and maximum oxygen concentration measured over 6-month period;
- iii. Average and maximum landfill gas temperature in extraction well measured over six-month period;
- iv. Average and maximum methane concentration at landfill surface measured over quarterly period. If annual monitoring is allowed, the average and maximum methane concentration at landfill surface during the most recent monitoring event;
- viii. For all maximum values, include the date and time that the value was identified:

Section 3 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.b. Description, reason, dates, start and end times, and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in Attachment II, Section E.

Condition G.2.b. v. Identification of any instances when the gas flow has been diverted from the control device, enclosed combustor, or open flare

Section 4 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.c.

Description, reason, dates, start and end times, and duration of all periods when the control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating.

Section 5 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.d.

All periods when the collection system was not operating in excess of five (5) days, including dates and times that operation ceased, reason for not operating, actions taken, dates and times that operation resumed, and future operational protocol that will prevent a reoccurrence of the situation.

Section 6 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.e.

The location of each exceedance of the 500 ppm surface methane concentration as provided in 60.753(d), concentration at each location for which an exceedance was recorded in the previous month. Also identify the dates of sampling, sampler's name, and actions taken to address the exceedance.

Section 7 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.f.

The date of installation and the location of each well or collection system expansion added.

Section 8 of Monitoring Report Form "Collection and Control System" includes information pursuant to:

Condition G.3.b.

Description, reason, dates, start and end times, and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in Attachment II, Section E.

Condition G.2.b, v.

Identification of any instances when the gas flow has been diverted from the control device, enclosed combustor, or open flare

Additional Information Not Included on Forms provided by the Department.

Condition G.2.b.vi. Average, maximum, and minimum combustion temperature of an enclosed combustion device, as applicable;

	Maximum Te	mperature	Minimum Te	mperature	Average
Month	Reading (°F)	Date	Reading (°F)	Date	Temperature (°F)
January-11	1801	01/13/11	1451	01/28/11	1645
February-11	1778	02/25/11	1495	02/25/11	1645
March-11	1717	03/06/11	1519	03/05/11	1642
April-11	1706	04/20/11	1532	04/19/11	1642
May-11	1730	05/02/11	1435	05/02/11	1642
June-11	1707	06/19/11	1073	06/03/11	1637
Six-Month Period	1801		1073		1642

Note that the above measurements represent instantaneous values and are not to be compared against the three hour limit specified in the following condition.

Condition F.10.d. Periods of operation during which the parameter boundaries established during the most recent performance test are exceeded, including:

 For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater: all 3hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature.

There were no 3-hour periods of operation when the combustion temperature was more than 28°C below the average combustion temperature of 1,583 degrees Fahrenheit (F) (861.7 degrees Celsius (C)) determined during the most recent performance test conducted on 10/27/2010.

Condition G.2.b. vii. Identification of any instances in which the pilot flame or flare flame for an open flare was not present;

The GCCS at WGSL does not employ an open flare. An enclosed flare is installed and controls the collected gas. There were no instances when LFG flowed through the flare when a flame was not present. The control system monitors the flame and shuts the system down when the flame is not present.

Section 1 of Monitoring Report Form "Visible Emissions" includes information pursuant to:

Condition G.2.b. x.

Any opacity exceedances as determined by the required monthly visible emissions monitoring. Each exceedance reported shall include the date, six (6) minute average opacity reading, possible reasons for exceedance, duration of exceedance, and corrective actions taken. If there were no exceedances, the permittee shall submit in writing a statement indicating that for each equipment there were no exceedances for that semi-annual period.

Visible emissions monitoring for the reporting period January 1 through June 30, 2011 was conducted on the following dates: January 25, 2011; February 25, 2011; March 26, 2011; April 7, 2011; May 27, 2011; and June 17, 2011.

There were no exceedances of opacity, i.e., the enclosed flare did not exhibit visible emissions greater than 20 percent for any 6-minute averaging period.

ATTACHMENT 1 -

MONITORING REPORT FORM "COLLECTION AND CONTROL SYSTEM"

Issuance Date: March 11, 2005

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

For Period: January 1, 2011 through June 30, 2011 Facility Name: Waimanalo Gulch Sanitary Landfill

Date: August 29, 2011

Expiration Date: March 10, 2010

Facility Location: Kapolei, HI

Information that cannot be certified as accurate has been omitted from this report form and is under investigation as detailed in the cover letter attached here to.

Responsible Official (Print):	Timothy E. Steinberger, P.E.		
Title:	Director, Environmental Services Department		
Responsible Official (Signature):	See Cover Letter with Certification	Date:	

Value and length of time for exceedance of applicable parameters. If there were no exceedances identified, then write "no
exceedances" in the comment column.

Gauge pressure in gas collection

r	eader				•	
Well ID	Value	Date	Start Time	End Time	Duration (days)	Comments
WGSL0032	0	3/2/11	4:27 PM	3/2/11 4:27 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSL0033	0	2/10/11	3:29 PM	2/10/11 5:49 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSL0044	0	2/10/11 ·	4:26 PM	2/10/11 5:41 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSL0047	0.4	2/10/11	2:48 PM	2/10/11 6:09 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSL0048	0.4	2/10/11	1:59 PM	2/10/11 6:06 PM	. 0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).

Issuance Date: March 11, 2005

Expiration Date: March 10, 2010

Well ID	Value	Date	Start Time	End Time	Duration (days)	Comments
WGSL0049	0.1	3/2/11 4	4:10 PM	3/2/11 4:10 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSL0049	0.1	3/2/11	4:14 PM	3/2/11 4:14 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSLGW02	0.5	3/2/11	4:04 PM	3/2/11 4:04 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSLGW02	0	6/14/11	2:53 PM	6/14/11 2:53 PM	0 .	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSLGW06	0	2/10/11	1:23 PM	2/10/11 6:01 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSLGW06	0	3/2/11	4:19 PM	3/2/11 4:19 PM	O	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
WGSLGW15	0	6/14/11	3:34 PM	6/14/11 3:34 PM	0	Corrective action was initiated within 5 days and the exceedance was corrected within 15 days pursuant to 40 CFR 60.755(a)(3).
Oxyge	n Conc. (%)					
Well ID	Value	Date	Start Time	End Time	Duration (days)	Comments
NA	NA		NA	, NA	NA	No Exceedances

Issuance Date: March 11, 2005

Expiration Date: March 10, 2010

Tem	p. (°C) of landfill g	las .				
Well ID	Value	Date	Start Time	End Time	Duration during reporting period (days)	Comments
GW-2	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-6	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-7	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-8	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-9	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-11	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-12	>55	1/1,	/2011	6/30/2011	180	See Note.
GW-13	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-14	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-15	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-24	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-25	<55	1/1.	/2011	6/30/2011	. 180	See Note.
GW-26	>55	1/1.	/2011	6/30/2011	180	See Note.
GW-27	>55	1/1,	/2011	6/30/2011	180	See Note.
GW-29	>55	1/1	/2011	6/30/2011	180	See Note.
GW-30	>55	1/1/	/2011	6/30/2011	180	See Note,
GW-31	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-32	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-33	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-34	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-35	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-36	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-37	>55	1/1/	/2011	6/30/2011	180	See Note.
GW-38	>55	1/1/	2011	6/30/2011	180	See Note.
GW-39	<55	1/1/	2011	6/30/2011	180	See Note.
GW-40	>55	1/1/	2011	6/30/2011	180	See Note.
GW-41	>55	1/1/	2011	6/30/2011	180	See Note.
GW-42	<55	1/1/	2011	6/30/2011	180	See Note.
GW-43	<55	. 1/1/	2011	6/30/2011	180	See Note.
GW-44	>55	1/1/	2011	6/30/2011	180	See Note.
GW-46	>55	1/1/	2011	6/30/2011	180	See Note.
GW-47	>55	1/1/	2011	6/30/2011	180	See Note,
GW-48	>55	1/1/	2011	6/30/2011	180	See Note.
GW-49	>55	1/1/	2011	6/30/2011	180	See Note.

Note: WMH has submitted (on behalf of the City & County of Honolulu) the following request letters to the United States EPA and Hawaii DOH CAB:

- 1. Alternative Wellhead Operating Standards and Compliance Procedures (dated 10/21/05).
- Alternative Wellhead Compliance Timeline Request (dated 12/7/05).
- 3. Alternative Wellhead Compliance Timeline Extension Request (dated 12/28/06).
- 4. Higher Operating Temperature Demonstration (dated 7/16/08).
- 5. Well 18 was closed in accordance with USEPA guidance (DOH notification dated 1/7/2010)
- 6. Well 28 was closed in accordance with USEPA guidance (DOH notification dated 1/7/2010)
- Well 45 was closed in accordance with USEPA guidance (DOH notification dated 2/16/2010)

To date, WMH/City & County of Honolulu has not received approval for the alternative compliance temperatures or the requested extensions. However, the issue of elevated temperatures at the Waimanalo landfill is the subject of a US EPA enforcement action (Citation No.R9-06-06). Studies by technical experts retained by WMH confirm that a subsurface fire is not present and is not contributing to the elevated temperatures. We are endeavoring to work out a corrective action plan as part of the settlement with US EPA.

A higher operating temperature demonstration was submitted to DOH and US EPA Region IX on 7/16/08 that establishes that the observed temperatures are normal for the facility. Upon approval by DOH and EPA, the wells noted herein would not otherwise have reportable temperature exceedances.

			ERED SOURC				
issuance Date:	March 11, 2005	-				Expiration Date: Mar	ch 10, 2010
Surface Conc. o as hexane)	f Methane (ppmv				,		
, , , , , , , , , , , , , , , , , , ,	Value	Date	Start Time	End	Time	Duration .	Comments
							See No. 6 below
2. Average and Header near Fl	maximum values fo	or the follow	ring: See Note	Following	this Sectio	n.	
	ameter	Averag	ge Value	Maximu	ım Value	Date of Max. Value	Comments
Gauge pressure header	in gas collection	-4	10.4	-3	9.6	2/10/11	Readings taken at flare inlet
Nitrogen Conc.	(%) or						
Oxygen Conc. (%)	(0.1	().2	3/3/11	Readings taken at flare inlet
Temp. (°C) of la	ındfill gas	3	0.6	3	3.0	3/14/11	Readings taken at flare inlet
Surface Concer Methane - 1st (1		NA	1	NA	NA	NA
Surface Concer Methane - 2nd (NA	1	NA	NA	NA
GW-2							
	ameter	Average Value		Maximum Value		Date of Max. Value	Comments
Gauge pressure header	e in gas collection	-0.2		0.5		3/2/11	
Nitrogen Conc.	(%) or					3/2,4/5,6/14,6/22	
Oxygen Conc. ((%)		0.0	0.0			
Temp. (°C) of la	andfill gas	7	75.1	7	7.8	6/14/11	
GW-6	ameter	Avera	ge Value	Mayim	um Value	Date of Max, Value	Comments
and the second s	e in gas collection		·0.1		0.0	2/10/11	
Nitrogen Conc.	(%) or					1445 0440 040 445	
Oxygen Conc. (0.0		0.1	1/15,2/10,3/2,4/5	
Temp. (°C) of la	andfill gas	-	70.7	7	1.1	1/15,2/10,3/2,4/5	
GW-7							
	ameter	Avera	ge Value	Maxim	um Value	Date of Max. Value	Comments
header	e in gas collection		-0.7		0.4	2/10/11	
Nitrogen Conc.						1/2,2/10,3/3	
Oxygen Conc.	(%)		0.0		0.0		1
Temp. (°C) of la	andfill gas		76.7	-	76.7	1/2,2/10,3/3	
GW-8							
Par	rameter	Avera	ige Value	Maxim	um Value	Date of Max. Value	Comments
Gauge pressure header	e in gas collection		-0.8		-0.2	1/2/11	
Nitrogen Conc.	(%) or						
Oxygen Conc.	(%)		0.0		0,1	4/12/11	
Temp. (°C) of la	andfill gas		62.5		33.3	1/2/11	

ssuance Date: March 11, 2005			Expiration Date: March 10, 2010				
GW-9							
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments			
Gauge pressure in gas collection header	-0.6	-0.3	4/26/11				
Nitrogen Conc. (%) or			4/0 4/45 0/40 A/06				
Oxygen Conc. (%)	0.0	0.0	1/2,1/15,2/10,4/26				
Temp. (°C) of landfill gas	71.4	72.2	2/10/11				
GW-11							
Parameter	Average Value	Maximum Value	Date of Max. Value	Commonto			
Gauge pressure in gas collection header	-0.4	-0.2	1/15/11	Comments			
Nitrogen Conc. (%) or							
Oxygen Conc. (%)	0.1	0.2	6/14/11				
Temp. (°C) of landfill gas	62.1	62.2	1/2,1/15,3/2,4/5,4/46,				
GW-12							
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments			
Gauge pressure in gas collection header	-0.4	-0.2	1/2,2/10				
Nitrogen Conc. (%) or			1/2,2/10,3/3,4/12				
Oxygen Conc. (%)	0.0	0.0	172,2710,070,4712				
Temp. (°C) of landfill gas	64.7	65.6	2/10/11				
GW-13							
Parameter	Average Value	Maximum Value	Date of Max, Value	Comments			
Gauge pressure in gas collection header	-0.4	-0.4	2/10,3/2				
Nitrogen Conc. (%) or			2/10,3/2,4/25				
Oxygen Conc. (%)	0.0	0.0					
Temp. (°C) of landfill gas	69.6	70.0	2/10,4/25				
GW-14							
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments			
Gauge pressure in gas collection neader	-1.9	-1.6	2/10/11				
Nitrogen Conc. (%) or			2/10,3/3				
Oxygen Conc. (%)	0.0	0.0					
Temp. (°C) of landfill gas	66.1	66.7	2/10/11				
GW-15							
Parameter	Average Value	Maximum Value	Date of Max, Value	Comments			
Gauge pressure in gas collection neader	-0.3	0.0	6/14/11				
Nitrogen Conc. (%) or			2/10,3/2,4/26,6/14				
Oxygen Conc. (%)	0.0	0.0	2/10,0/2,4/20,0/14				
		1	1				

Issuance Date: March 11, 2005			Expiration Date: March	10, 2010
GW-24				·
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-1.1	-0.7	2/10/11	
Nitrogen Conc. (%) or			1/2,2/10,3/3	
Oxygen Conc. (%)	0.0	0,0		
Temp. (°C) of landfill gas	73.1	73.9	2/10/11	
GW-25				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-1.1	-1.0	1/15/11	Manager 1
Nitrogen Conc. (%) or			1/15,2/10,3/2	
Oxygen Conc. (%)	0.0	0,0		
Temp. (°C) of landfill gas	53.1	53.3	1/15,3/2	
GW-26				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-0.7	-0.7	2/10/11	
Nitrogen Conc. (%) or			2/10/11	
Oxygen Conc. (%)	0,0	0.0	-	
Temp. (°C) of landfill gas	57.8	57.8	2/10/11	
GW-27				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-3.2	-3.0	3/2/11	v
Nitrogen Conc. (%) or			4/5/11	
Oxygen Conc. (%)	0.0	0.1		
Temp. (°C) of landfill gas	59.6	60.0	1/15,3/2,4/5	
GW-29				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-3.2	-2.8	2/28,3/2	
Nitrogen Conc. (%) or		ļ	2/28,3/2,4/26	
Oxygen Conc. (%)	0.0	0.0		
Temp. (°C) of landfill gas	61.1	64.4	3/2/11	
GW-30				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-1.2	-0.8	2/10,3/2	
Nitrogen Conc. (%) or			1/2,2/10,3/2,4/26	
Oxygen Conc. (%)	0.0	0.0		
Temp. (°C) of landfill gas	73.3	75.6	3/2/11	

Issuance Date: March 11, 2005	Expiration Date: March	on Date: <u>March 10, 2010</u>		
GW-31				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-1.8	-1.1	4/26/11	
Nitrogen Conc. (%) or			4/0.0/40.0/0.4/00	
Oxygen Conc. (%)	0.0	0.0	- 1/2,2/10,3/2,4/26	
Temp. (°C) of landfill gas	69.2	70.0	3/2/11	
GW-32				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-0.6	0.0	3/2/11	
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/2,4/5	
Oxygen Conc. (%)	0.0	0.0		
Temp. (°C) of landfill gas	77.6	77.8	1/2,1/15,2/10,3/2	
GW-33				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-0.3	0.0	2/10/11	
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/3,4/5	
Oxygen Conc. (%)	0.0	0.0	,,,	
Temp. (°C) of landfill gas	70.7	73.3	2/10/11	
GW-34				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-23.9	-23,5	1/2/11	
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/3,4/5	
Oxygen Conc. (%)	0.0	0.0	_	
Temp. (°C) of landfill gas	54.0	55,6	2/10/11	
GW-35		approximation .		
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection neader	-30.5	-29.7	1/2/11	
Nitrogen Conc. (%) or			1/2,2/10,3/2,4/5	
Oxygen Conc. (%)	0.0	0.0	, ,,	
Temp. (°C) of landfill gas	63,6	64.4	1/2,3/2,4/5	
GW-36		*		
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-29.2	-28.5	1/2/11	
Nitrogen Conc. (%) or			1/2,2/10,3/2,4/5	
Oxygen Conc. (%)	0.0	0.0	,,	
Temp. (°C) of landfill gas	64.6	65.6	1/2/11	

COVERED SOURCE PERMIT NO. 0489-01-C				
issuance Date: March 11, 2005	Expiration Date: March 10, 2010			<u>10, 2010</u>
GW-37				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-1.0	-0.4	2/10/11	
Nitrogen Conc. (%) or			1/2,2/10,4/5,4/26	
Oxygen Conc. (%)	0.0	0.0		
Temp. (°C) of landfill gas	59.2	60.0	2/10/11	
GW-38				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-2.2	-1.8	2/10/11	
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/3,4/5	
Oxygen Conc. (%)	0.0	0.0	,,,,	
Temp. (°C) of landfill gas	59.1	60.0	2/10/11	
GW-39				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-30.6	-29.4	1/2/11	
Nitrogen Conc. (%) or			1/2,2/10,3/3	
Oxygen Conc. (%)	0.0	0.0	172,2710,070	
Temp. (°C) of landfill gas	41.1	43.3	2/10/11	
GW-40				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-21.8	-21.4	1/15/11 & 2/10/11	
Nitrogen Conc. (%) or	0.0	0.0	1/2,1/15,2/10,3/2,4/5	
Oxygen Conc. (%) Temp. (°C) of landfill gas	53.6	55.6	2/10/11 & 3/2/11	
Temp. (O) of failuring gas				
GW-41		1		
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-7.1	-6.2	1/2/11 & 2/10/11	
Nitrogen Conc. (%) or			1/2,2/10,4/5,4/26	
Oxygen Conc. (%)	0.0	0.0	172,27707.1120	
Temp. (°C) of landfill gas	54.7	55.6	1/2/11 & 2/10/11	
GW-42				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-29.4	-28.6	1/2/11	
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/2,4/5,	
Oxygen Conc. (%)	0.0	0.0	4/26	
Temp. (°C) of landfill gas	50.7	51.1	2/10,3/2,4/5,4/26	
GW-43				
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments
Gauge pressure in gas collection header	-7.1	-6.4	2/10/11	
Nitrogen Conc. (%) or			1/2 2/10 2/2	
Oxygen Conc. (%)	0.0	0.0	1/2,2/10,3/3	
Temp. (°C) of landfill gas	54.1	54.4	1/2,2/10	

COVERED SOURCE PERMIT NO. 0489-01-C						
Issuance Date: March 11, 2005	Expiration Date: March 10, 2010					
GW-44						
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments		
Gauge pressure in gas collection header	-0.4	0.0	2/10/11			
Nitrogen Conc. (%) or			1/2,2/10,3/3			
Oxygen Conc. (%)	0.0	0.0	1/2,2/10,3/3			
Temp. (°C) of landfill gas	77.8	77.8	1/2,2/10,3/3			
GW-46	\$					
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments		
Gauge pressure in gas collection header	-30.5	-29.1	4/5/11			
Nitrogen Conc. (%) or			1/2,2/10,4/5,4/26			
Oxygen Conc. (%)	0.0	0.0	,			
Temp. (°C) of landfill gas	55.1	57.2	2/10/11			
GW-47						
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments		
Gauge pressure in gas collection header	-0.4	0.7	2/10/11			
Nitrogen Conc. (%) or			4/5/11			
Oxygen Conc. (%)	0.0	0.1				
Temp. (°C) of landfill gas	74.3	75.6	1/2,1/15,3/2,4/5,4/26			
GW-48						
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments		
Gauge pressure in gas collection header	-0.3	0.8	2/10/11			
Nitrogen Conc. (%) or			1/2,1/15,2/10,3/2,4/5,			
Oxygen Conc. (%)	0.0	0.0	4/26			
Temp. (°C) of landfill gas	75.4	75.6	1/2,1/15,2/10,3/2,4/5, 4/26			
GW-49						
Parameter	Average Value	Maximum Value	Date of Max. Value	Comments		
Gauge pressure in gas collection header	-0,2	0.1	3/2/11			
Nitrogen Conc. (%) or			2/10,3/2,4/5,6/14,6/22			
Oxygen Conc. (%)	0.0	0.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Temp. (°C) of landfill gas	75.6	75.6	6/14/11			

Monthly monitoring data for wellhead temperatures, pressures, and oxygen concentrations were not recorded for a number of wells in several months. As a result, the values reported for the 6-month average and maximum gauge pressures, oxygen concentrations, and temperatures are based on only the values for those wells and sampling events that were actually measured. Attachment 3 identifies the wells and months for which data is available. Attachment 4 presents the available data.

Identify the dates, times, duration, reason, and description of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow. If there were no occurrences, then write 'no occurrences' in the comment column.

Description and Reason	Date	Start-End Time	Duration	Comments
				NO OCCURRENCES
 				· ·
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Issuance Date: March 11, 2005

Expiration Date: March 10, 2010

4. Identify the dates, times, duration, reason, and description of all periods when the control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating. If there were no occurrences, then write 'no occurrences' in the comment column.

Description and Reason	Date	Start-End Time	Duration (hours)	Comments	
Power Outage	1/10/11 - 1/11/11	23:08 - 4:10	5,03	Non-scheduled	
Power Outage	1/12/11 - 1/13/11	22:06 - 1:34	3.47	Non-scheduled	
Air Compressor Malfunction	1/27/11	11:34 - 15:34	4.00	Non-scheduled	
Air Compressor Malfunction	1/28/11	14:06 - 17:46	3.67	Non-scheduled	
Air Compressor Malfunction	2/4/11	11:46 - 14:04	2.30	Non-scheduled	
Air Compressor Malfunction	2/14/11	19:14 - 22:20	3.10	Non-scheduled	
Air Compressor Malfunction	2/18/11	10:52 - 13:38	2.77	Non-scheduled	
Air Compressor Malfunction	2/19/11	1:08 - 3:12	2.07	Non-scheduled	
Sump Malfunction	2/24/11	14:08 - 15:56	1.80	Non-scheduled	
Injection system Malfunction	2/25/11	12:20 - 4:16	3,93	Non-scheduled	
Sump Malfunction	3/5/11 - 3/6/11	21:40 - 2:08	4.47	Non-scheduled	
Air Compressor Malfunction	3/18/11	9:52 - 12:52	3.00	Non-scheduled	
Air Compressor Malfunction	3/23/11	1:22 - 5:04	3.70	Non-scheduled	

Issuance Date: March 11, 2005

Expiration	Data:	March	40	2040	

Description and Reason	Date	Start-End Time	Duration (hours)	Comments
Air Compressor Malfunction	3/23/11	7:38 - 18:08	10.50	Non-scheduled
Sump Malfunction .	3/25/11	2:02 - 4:24	2.37	Non-scheduled
Sump Malfunction	3/29/11	14:34 - 16:34	2.00	Non-scheduled
Air Compressor Malfunction	4/14/11	13:14 - 16:22	3.13	Non-scheduled
Sump Malfunction	4/19/11	12:24 - 17:12	4.80	Non-scheduled
Air Compressor Malfunction	4/28/11	13:08 - 16:44	3.60	Non-scheduled
Power Outage	5/3/11	13:02 - 17:30	4.47	Non-scheduled
Power Outage	5/12/11	11:28 - 16:20	4.87	Non-scheduled
Power Outage	5/29/11 - 5/30/11	21:56 - 1:38	3.70	Non-scheduled
Power Outage	6/1/11	1:26 - 2:52	1.43	Non-scheduled
Power Outage	6/3/11	8:54 - 12:40	3.77	Non-scheduled
Power Outage	6/4/11	22:10 - 23:40	1.50	Non-scheduled
Air Compressor Malfunction	6/8/11	7:58 - 12:02	4.07	Non-scheduled

Issuance Date: March 11, 2005 Expiration Date: March 10, 2010

Description and Reason Date		Start-End Time	Duration (hours)	Comments	
Injection system Malfunction	6/8/11	13:52 - 15:44	1.87	Non-scheduled	
Flare Inspection and Maintenance	6/21/11	7:40 - 15:22	7.70	Non-scheduled	
Air Compressor Malfunction	6/28/11	14:08 - 15:52	1.73	Non-scheduled	

5. Identify all periods when the collection system was not operating in excess of five (5) days, including the dates and times that operation ceased, reason for not operating, actions taken, dates and times that operation resumed, and future operational protocol that will prevent a reoccurrence of the situation. If there were no occurrences, then write 'no occurrences' in the comment column.

Reasons, Actions Taken	Start/End Dates	Start/End Times	Duration	Future Protocol, Comments
The state of the s				NO OCCURRENCES

suance Date:	March 11, 2005	Expiration Date: 1	March 1

6. Identify the location of each exceedance of the 500 ppm surface methane concentration and the concentration at each location for which an exceedance was recorded in the previous month. Also identify the dates of sampling, sampler's name, and actions taken to address the exceedance. If there were no exceedances, then write 'no occurrence' in the table.

Sampling Date	Location	Conc. (ppm)	Previous Conc. (ppm)	Actions Taken	Sampler's Name
	NO OCCURRENCES				· .

7. Identify the date of installation and the location of each well or collection system expansion added. If no additions were made, then write 'no additions' in the table.

Well ID	Description of Addition	Date of	Coordinates		
	Description of Addition	Installation	North	East	
	NO ADDITIONS				

	THE PARTY OF THE P				

8. Identify any instances when the gas flow has been diverted from the control device, enclosed combustor, or open flare. If there were no occurrences, then write 'no occurrences' in the table.

Description and Reason	Date	Start-End Time	Duration	Comments
			,	NO OCCURRENCES
1		1		

ATTACHMENT 2 -

MONITORING REPORT FORM "VISIBLE EMISSIONS"

MONITORING REPORT FORM **VISIBLE EMISSIONS** COVERED SOURCE PERMIT NO. 0489-01-C

Issuance Date: March 11, 2005

Expiration Date: March 10, 2010

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

For Period: January 1, 2011 through June 30, 2011 Facility Name: Waimanalo Gulch Sanitary Landfill

Facility Location: Kapolei, HI

Date: August 1, 2011

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (Print): Timothy E. Steinberger, P.E.

Director, Environmental Services Department

Responsible Official (Signature): See cover letter with certification

Visible Emissions:

Report the following on the lines provided below: all date(s) and six (6) minute average opacity reading(s) which the opacity limit was exceeded during the monthly observations; if there were no exceedances during the monthly observations, then write "no exceedances" in the comment column.

EQUIPMENT	SERIAL/ID NO.	DATE	6 MIN. AVG (%)	COMMENTS
				NO EXCEEDANCES

ATTACHMENT 3 – AVAILABLE MONITORING DATA

Attachment 3 - Available Monitoring Data

Well ID	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11
2		Х	Х	Х	•	X
6	X	Х	Х	Х		
7	X	Х	Χ			
8	X	Х	Х	Х		
9	Χ	Х		Х		
11	Х	Х	Х	Χ		Х
12	Х	Х	Х	Х		Contract Heritage States
13		Х	Х	Χ		
14		Х	Χ			
15		Х	Х	Х		Х
24	Х	Х	Х			
25	Χ	Χ	Х			
26		Χ				
27	Х	Х	Х	Х		
29		Х	Х	Х		
30	Х	Х	Х	Х		
31	Χ	Χ	Х	X		
32	Χ	Χ	Х	X		
33	Χ	Χ	Х	X		
34	Χ	Χ	Х	Х		
35	Х	Χ	Х	Х	*	
36	Х	Χ	Х	Х		
37	Χ	Χ		X		
38	Х	Χ	Х	Х		
39	Χ	Χ	Х			
40	Χ	Χ	Х	Х	****	
41	Χ	Χ		х		
42	Χ	Χ	Х	X		
43	Χ	Χ	Х			
44	Х	Х	Х			
46	Х	Χ	and the second s	X		
47	Х	Х	Χ	Х		
48	Χ	Х	Х	X		
49	Χ	Χ	Х	х		

No certifiable accurate record

X Valid record used in calculation of average and maximum.

ATTACHMENT 4 – MONITORING DATA

	1		Attachment 4	- Monitoring Da	ita			
		02.40	Initial Static	Adjusted Static	Initial	Adjusted		
Davies ID	Data Time	O2 (Oxygen)	Pressure	Pressure	Temperature	Temperature		
Device ID WGSL0025	Date Time	(%)	("H2O)	("H2O)	(Deg F)	(Deg F)	avg. T	Deg C
WGSL0025 WGSL0025	1/15/11 12:02 PM	0.00	-1.0	-1.0	128	128	128	53.3
WGSL0025 WGSL0025	2/10/11 2:13 PM	0.00	-1.1	-1.1	127	127	127	52.8
WGSL0025 WGSL0025 A	3/2/11 5:27 PM	0.00	-1.1	-1.1	128	128	128	53.3
WGSL0025 A	2/10/11 2:18 PM	0.00 0.00	-1.1 -0.7	-1.1	128	128	400	53.1
WGSL0026 WGSL0026 A		0.00	-0.7 -0.7	-0.7	136	136	136	57.8
WGSL0027	1/2/11 10:06 PM	0.00	-0.7 -3.6	-0.7	136	136	420	57.8
WGSL0027 WGSL0027	1/15/11 12:06 PM	0.00	-3.0 -3.1	-3.7 -3.1	138	138	138	58.9
WGSL0027 WGSL0027	2/10/11 1:01 PM	0.00	-3.2	-3.1	140 138	140	140	60.0
WGSL0027	3/2/11 3:52 PM	0.00	-3.2	-3.5 -3.0	140	138 140	138	58.9
WGSL0027 WGSL0027	4/5/11 4:04 PM	0.10	-3.1	-3.0 -3.1	140		140	60.0
WGSL0027 A		0.02	-3.1	-3.1	139	140 139	140	60.0
WGSL0029	2/28/11 5:36 PM	0.00	-3.1	-3.2 -2.8	140	136	140	59.6
WGSL0029	3/2/11 5:21 PM	0.00	-3.1 -2.9	-2.8 -2.8	148	148	140	60.0
WGSL0029	4/26/11 12:49 PM	0.00	-3.9	-3.9	140	140	148 140	64.4 60.0
WGSL0029 A		0.00	-3.3	-3.2	143	140	140	61.5
WGSL0030	1/2/11 11:41 PM	0.00	-1.9	-1.9	162	162	162	72.2
WGSL0030	2/10/11 2:43 PM	0.00	-0.8	-0.8	165	165	165	72.2 73.9
WGSL0030	3/2/11 5:08 PM	0.00	-0.8	-0.8	168	166	168	75.6
WGSL0030	4/26/11 12:38 PM	0.00	-1.2	-1.2	162	162	162	73.0
WGSL0030 A		0.00	-1.2	-1.2	164	164	102	73.5
WGSL0031	1/2/11 11:45 PM	0.00	-2.8	-2.8	156	156	156	68.9
WGSL0031	2/10/11 3:17 PM	0.00	-1.7	-1.7	156	156	156	68.9
WGSL0031	3/2/11 5:02 PM	0.00	-1.7	-1.7	158	158	158	70.0
WGSL0031	4/26/11 12:31 PM	0.00	-1.1	-1.1	156	156	156	68.9
WGSL0031 A		0.00	-1.8	-1.8	157	157	150	69.2
WGSL0032	1/2/11 10:27 PM	0.00	-1.1	-1.1	172	172	172	77.8
WGSL0032	1/15/11 11:43 AM	0.00	-1.1	-1.0	172	172	172	77.8
WGSL0032	2/10/11 1:51 PM	0.00	-0.2	-0.3	172	172	172	77.8
WGSL0032	3/2/11 4:27 PM	0.00	0.0	-0.1	172	172	172	77.8
WGSL0032	4/5/11 4:35 PM	0.00	-0 . 5	-0.6	170	170	170	76.7
WGSL0032 A	verage	0.00	-0.6	-0.6	172	172		77.6
WGSL0033	1/2/11 11:14 PM	0.00	-0.5	-0.5	158	158	158	70.0
WGSL0033	1/15/11 12:49 PM	0.00	-0.1	-0.1	158	158	158	70.0
WGSL0033	2/10/11 3:29 PM	0.00	0.0	0.0	160	160	160	71.1
WGSL0033	2/10/11 5:49 PM	0.00	-0.1	-0.1	164	164	164	73.3
WGSL0033	3/3/11 10:54 AM	0.00	-0.6	-0.6	158	158	158	70.0
WGSL0033	4/5/11 1:13 PM	0.00	-0.6	-0.6	158	158	158	70.0
WGSL0033 Av	verage	0.00	-0.3	-0.3	159	159		70.7
WGSL0034	1/2/11 11:10 PM	0.00	-23.5	-23.5	130	130	130	54.4
WGSL0034	1/15/11 12:51 PM	0.00	-23.8	-23.8	128	128	128	53.3
WGSL0034	2/10/11 3:32 PM	0.00	-23.6	-23.6	132	132	132	55.6
WGSL0034	3/3/11 10:57 AM	0.00	-24.1	-24.1	128	128	128	53.3
WGSL0034	4/5/11 1:07 PM	0.00	-24.5	-24.4	128	128	128	53.3
WGSL0034 Av		0.00	-23.9	-23.9	129	129		54.0
WGSL0035	1/2/11 10:53 PM	0.00	-29.8	-29.7	148	148	148	64.4
WGSL0035	2/10/11 4:01 PM	0.00	-30.8	-30.8	142	142	142	61.1
WGSL0035	3/2/11 1:35 PM	0.00	-30.5	-30.6	148	148	148	64.4
WGSL0035	4/5/11 12:42 PM	0.00	-30.9	-30.9	148	148	148	64.4
WGSL0035 Av		0.00	-30.5	-30.5	147	147		63.6
WGSL0036	1/2/11 10:57 PM	0.00	-28.5	-28.5	150	150	150	65.6
WGSL0036	2/10/11 3:58 PM	0.00	-29.3	-29.3	145	145	145	62.8

Attachment 4 - Monitoring Data										
			Initial Static	Adjusted Static	Initial	Adjusted				
· ·		O2 (Oxygen)	Pressure	Pressure	Temperature	Temperature				
Device ID	Date Time	(%)	("H2O)	("H2O)	(Deg F)	(Deg F)	avg. T	Deg C		
WGSL0036	3/2/11 1:40 PM	0.00	-29.3	-29.3	150	150	150	65.6		
WGSL0036 4/5/11 12:45 PM		0.00	-29.7	-29.6	148	148	148	64.4		
WGSL0036 Average		0.00	-29.2	-29.2	148	148		64.6		
WGSL0037	1/2/11 11:52 PM	0.00	-0.6	-0.6	138	138	138	58.9		
WGSL0037	2/10/11 2:32 PM	0.00	-0.4	-0.4	140	140	140	60.0		
WGSL0037	4/5/11 1:31 PM	0.00	-1.8	-1.8	138	138	138	58.9		
WGSL0037	4/26/11 12:15 PM	0.00	-1.3	-1.3	138	138	138	58.9		
WGSL0037 A	verage	0.00	-1.0	-1.0	139	139		59.2		
WGSL0038	1/2/11 11:23 PM	0.00	-2.2	-2.2	138	138	138	58.9		
WGSL0038	1/15/11 12:46 PM	0.00	-1.9	-1.9	138	138	138	58.9		
WGSL0038	2/10/11 3:23 PM	0.00	-1.8	-1.8	140	140	140	60.0		
WGSL0038	3/3/11 10:51 AM	0.00	-2.9	-2.9	138	138	138	58.9		
WGSL0038	4/5/11 1:20 PM	0.00	-2.1	-2.1	138	138	138	58.9		
WGSL0038 A	verage	0.00	-2.2	-2.2	138	138		59.1		
WGSL0039	1/2/11 11:05 PM	0.00	-29.9	-29.4	100	100	100	37.8		
WGSL0039	2/10/11 4:06 PM	0.00	-30.6	-31.1	110	110	110	43.3		
WGSL0039	3/3/11 11:01 AM	0.00	-31.2	-31.3	108	108	108	42.2		
WGSL0039 A		0.00	-30.6	-30.6	106	106		41.1		
WGSL0040	1/2/11 11:21 PM	0.00	-21.5	-21.5	124	124	124	51.1		
WGSL0040	1/15/11 12:57 PM	0.00	-21.4	-21.4	126	126	126	52.2		
WGSL0040	2/10/11 3:37 PM	0.00	-21.4	-21.4	132	132	132	55.6		
WGSL0040	3/2/11 1:21 PM	0.00	-21.7	-21.7	132	132	132	55.6		
WGSL0040	4/5/11 1:02 PM	0.00	-22.6	-23.1	128	128	128	53.3		
WGSL0040 A	verage	0.00	-21.7	-21.8	128	128		53.6		
WGSL0041	1/2/11 11:56 PM	0.00	-6.4	-6.4	132	132	132	55.6		
WGSL0041	2/10/11 2:28 PM	0.00	-6.3	-6.3	132	132	132	55.6		
WGSL0041	4/5/11 1:26 PM	0.00	-7.5	-7.7	130	130	130	54.4		
WGSL0041	4/26/11 12:08 PM	0.00	-8.1	-8.1	128	128	128	53.3		
WGSL0041 A	verage	0.00	-7.1	-7.1	131	131		54.7		
WGSL0042	1/2/11 11:32 PM	0.00	-28.6	-28.6	122	122	122	50.0		
WGSL0042	1/15/11 12:42 PM	0.00	-29.2	-29.2	122	122	122	50.0		
WGSL0042	2/10/11 3:41 PM	0.00	-29.1	-29.1	124	124	124	51.1		
WGSL0042	3/2/11 1:11 PM	0.00	-29.0	-29.0	124	124	124	51.1		
WGSL0042	4/5/11 12:55 PM	0.00	-28.9	-28.9	124	124	124	51.1		
WGSL0042	4/26/11 12:00 PM	0.00	-31.8	-31.7	124	124	124	51.1		
WGSL0042 A	verage	0.00	-29.4	-29.4	123	123		50.7		
WGSL0043	1/2/11 10:48 PM	0.00	-7.6	-7.6	130	130	130	54.4		
WGSL0043	2/10/11 4:13 PM	0.00	-6.4	-6.4	130	130	130	54.4		
WGSL0043	3/3/11 11:09 AM	0.00	-7.3	-7.3	128	128	128-	53.3		
WGSL0043 A	verage	0.00	-7.1	-7.1	129	129		54.1		
WGSL0044	1/2/11 6:17 PM	0.00	-0.3	-0.1	172	172	172	77.8		
WGSL0044	2/10/11 4:26 PM		0.0	0.0	172	172	172	77.8		
WGSL0044	2/10/11 5:41 PM	0.00	0.0	-0.1	172	172	172	77.8		
WGSL0044	3/3/11 11:25 AM		-1.3	-1.0	172	172	172	77.8		
WGSL0044 A		0.00	-0.4	-0.3	172	172		77.8		
WGSL0046	1/2/11 11:49 PM	0.00	-30.1	-30.1	130	130	130	54.4		
WGSL0046	2/10/11 3:11 PM	0.00	-30.9	-30.9	135	135	135	57.2		
WGSL0046	4/5/11 1:37 PM	•	-29.1	* -29.1	130	130	130	54.4		
WGSL0046	4/26/11 12:22 PM		-31.8	-31.8	130	130	130	54.4		
WGSL0046 A		0.00	-30.5	-30.5	131	131		55.1		
WGSL0047	1/2/11 10:21 PM		-0.4	-0.4	168	168	168	75.6		
WGSL0047	1/15/11 11:57 AM		-0.5	-0.5	168	168	168	75.6		

	.		Attachment 4	- Monitoring Da	ita			
		00/0	Initial Static	Adjusted Static	Initial	Adjusted		
D		O2 (Oxygen)	Pressure	Pressure	Temperature	Temperature		
Device ID	Date Time	(%)	("H2O)	("H2O)	(Deg F)	(Deg F)	avg. T	Deg C
WGSL0047	2/10/11 2:48 PM	0.00	0.4	0,3	160	160	160	71.1
WGSL0047	2/10/11 6:09 PM	0.00	0.7	-0.3	160	160	160	71.1
WGSL0047	3/2/11 4:42 PM	0.00	-0.6	-0.7	168	168	168	75.6
WGSL0047	4/5/11 4:18 PM	0.10	-1.1	-1.1	168	168	168	75.6
WGSL0047	4/26/11 2:26 PM	0.00	-0.7	-0.7	168	168	168	75.6
WGSL0047 A	-	0.01	-0.3	-0.5	166	166		74.3
WGSL0048	1/2/11 10:35 PM	0.00	-0.2	-0.3	168	168	168	75.6
WGSL0048	1/15/11 11:50 AM	0.00	-0.1	-0.1	168	168	168	75.6
WGSL0048	2/10/11 1:59 PM	0.00	0.4	0.4	166	166	166	74.4
WGSL0048	2/10/11 6:06 PM	0.00	8,0	-0.1	168	168	168	75.6
WGSL0048	3/2/11 4:33 PM	0.00	-0.2	-0.2	168	168	168	75.6
WGSL0048	4/5/11 4:28 PM	0.00	-0.5	-0.5	168	168	168	75.6
WGSL0048	4/26/11 2:09 PM	0.00	-0.4	-0.4	168	168	168	75.6
WGSL0048 A	-	0.00	0.0	-0.2	168	168		75.4
WGSL0049	1/15/11 11:37 AM	0.00	-0.5	-0.5	168	168	168	75.6
WGSL0049	2/10/11 1:17 PM	0.00	-0.1	-0.2	168	168	168	75.6
WGSL0049	3/2/11 4:10 PM	0.00	0.1	-0.2	168	168	168	75.6
WGSL0049	3/2/11 4:14 PM	0.00	0.1	-0.1	168	168	168	75.6
WGSL0049	4/5/11 4:45 PM	0.00	-0.2	-0.2	168	168	168	75.6
WGSL0049 A	verage	0.00	-0.1	-0.2	168	168		75.6
WGSLGW02	2/10/11 1:08 PM	0.00	-0.7	-0.6	168	168	168	75.6
WGSLGW02	3/2/11 4:04 PM	0.00	0.5	-0.2	160	162	162	72.2
WGSLGW02	4/5/11 4:52 PM	0.00	-0.3	-0.2	162	162	162	72.2
WGSLGW02	6/14/11 2:37 PM	0.00	-0.1	-0.1	170	170	170	76.7
WGSLGW02	6/14/11 2:53 PM	0.00	0.0	-0.1	172	172	172	77.8
WGSLGW02	6/22/11 4:02 PM	0.00	-0.1	-0.2	170	170	170	76.7
WGSLGW02	Average	0.00	-0.1	-0.2	167	167		75.2
WGSLGW06	1/15/11 11:39 AM	0.00	-0.2	-0.2	160	160	160	71.1
WGSLGW06	2/10/11 1:23 PM	0.00	0.0	0.1	154	158	158	70.0
WGSLGW06	2/10/11 6:01 PM	0.00	-0.1	-0.1	160	160	160	71.1
WGSLGW06	3/2/11 4:19 PM	0.00	0.0	-0.2	160	160	160	71.1
WGSLGW06	4/5/11 4:41 PM	0.00	-0.2	-0.4	160	160	160	71.1
WGSLGW06	Average	0.00	-0.1	-0.2	159	160		70.9
WGSLGW07	1/2/11 6:31 PM	0.00	-0.7	-0.7	170	170	170	76.7
WGSLGW07	2/10/11 4:34 PM	0.00	-0.4	-0.4	170	170	170	76.7
WGSLGW07	3/3/11 11:35 AM	0.00	-1.0	-1.0	170	170	170	76.7
WGSLGW07	Average	0.00	-0.7	-0.7	170	170		76.7
WGSLGW08	1/2/11 6:25 PM	0.00	-0.2	-0.2	146	146	146	63.3
WGSLGW08	2/28/11 6:24 PM	0.00	-0.4	-0.4	144	144	144	62.2
WGSLGW08	3/3/11 11:32 AM	0.00	-1.3	-1.3	144	144	144	62.2
WGSLGW08	4/12/11 10:20 AM	0.10	-1.3	-1.3	144	144	144	62.2
WGSLGW08	Average	0.03	-0.8	-0.8	145	145		62.5
WGSLGW09	1/2/11 10:33 PM	0.00	-0.8	-0.8	160	160	160	71.1
WGSLGW09	1/15/11 11:47 AM	0.00	-0.8	-0.8	160	160	160	71.1
WGSLGW09	2/10/11 1:55 PM	0.00	-0.4	-0.4	162	162	162	72.2
WGSLGW09	4/26/11 2:00 PM	0.00	-0.3	-0.3	160	160	160	71.1
WGSLGW09		0.00	-0.6	-0.6	161	161	100	71.4
WGSLGW11	1/2/11 10:16 PM	0.00	-0.3	-0.3	144	144	144	62.2
WGSLGW11	1/15/11 11:53 AM	0.00	-0.2	-0.3	144	144	144	62.2
WGSLGW11	2/10/11 2:51 PM	0.00	-0.3	-0.3	142	142	144	61.1
WGSLGW11	3/2/11 4:37 PM	0.00	-0.4	-0.3	144	144	144	
WGSLGW11	4/5/11 4:23 PM	0.10	-0.4	-0.5 -0.5	144	144	144 144	62.2 62.2
	-y my mm + 1 mm + 1 1 1 1	0.20	0.5	5.5	±-7- 7	±-7- 11	T-4-4	02.2

	Attachment 4 - Monitoring Data									
		03 (0)(400 5)	Initial Static Pressure	Adjusted Static Pressure	Initial Temperature	Adjusted Temperature				
		O2 (Oxygen)			•	,	nua T	DogC		
Device ID	Date Time	(%)	("H2O)	("H2O) -0.4	(Deg F)	(Deg F) 144	avg. T 144	Deg C 62.2		
WGSLGW11	4/26/11 2:18 PM	0.00	-0.3		144	144	144	62.2		
WGSLGW11	6/14/11 4:03 PM	0.20	-0.7	-0.3	144	144 144		62.2		
WGSLGW11	6/14/11 4:09 PM	0.20	-0.3	-0.3	144		144			
WGSLGW11	•	0.06	-0.4	-0.3	144	144	4.40	62.1		
WGSLGW12	1/2/11 6:20 PM	0.00	-0.2	-0.2	148	148	148	64.4		
WGSLGW12	2/10/11 4:29 PM	0.00	-0.2	-0.2	150	150	150	65.6		
WGSLGW12	3/3/11 11:28 AM	0.00	-0.5	-0.5	148	148	148	64.4		
WGSLGW12	4/12/11 10:25 AM	0.00	-0.6	-0.5	148	148	148	64.4		
WGSLGW12	-	0.00	-0.4	-0.4	149	149		64.7		
WGSLGW13	2/10/11 2:56 PM	0.00	-0.4	-0.4	158	158	158	70.0		
WGSLGW13	3/2/11 4:49 PM	0.00	-0.4	-0.4	156	156	156	68.9		
WGSLGW13	4/25/11 2:39 PM	0.00	-0.5	-0.5	158	158	158	70.0		
WGSLGW13	WGSLGW13 Average		-0.4	-0.4	157	157		69.6		
WGSLGW14	2/10/11 4:22 PM	0.00	-1.6	-1.6	152	152	152	66.7		
WGSLGW14	3/3/11 11:22 AM	0.00	-2.2	-2.2	150	150	150	65.6		
WGSLGW14	Average	0.00	-1.9	-1.9	151	151		66.1		
WGSLGW15	2/10/11 3:03 PM	0.00	-0.1	-0.1	152	152	152	66.7		
WGSLGW15	3/2/11 4:56 PM	0.00	-0.1	-0.1	150	150	150	65.6		
WGSLGW15	4/26/11 2:50 PM	0.00	-0.5	-0.5	144	144	144	62.2		
WGSLGW15	6/14/11 3:34 PM	0.00	0.0	-0.3	150	152	152	66.7		
WGSLGW15	6/14/11 3:37 PM	0.00	-0.4	-0.4	152	152	152	66.7		
, WGSLGW15	6/14/11 3:41 PM	0.00	-0.4	-0.2	152	152	152	66.7		
WGSLGW15	Average	0.00	-0.3	-0.3	150	150		65.7		
WGSLGW24	1/2/11 6:12 PM	0.00	-1.2	-1.2	162	162	162	72.2		
WGSLGW24	2/10/11 4:18 PM	0.00	-0.7	-0.7	165	165	165	73.9		
WGSLGW24	3/3/11 11:14 AM	0.00	-1.5	-1.5	164	164	164	73.3		
WGSLGW24		0.00	-1.1	-1.1	164	164		73.1		
Grand Avera	ge	0.01	-6.7	-6.7	149	149		65.2		
=	-									

ATTACHMENT 5 – MONITORING DATA (AUGUST 2011)

Device D		·		Attachment	5 - Monitoring [Data (August 201	.1)		
Device ID Date Time (Na) Pressure Chegri Temperature Temperature Clog F1 Clog F1 Clog F2 Clog F3 Clog				Initial Centic	Adjusted Ctati-]misini	Adiustad	Initial	Adjusted
Device Device			1		1 ' 1		- 1		1 1
MOSILOD25 \$1/4/D11 1:29	Doving ID	Data Tima			1			· · · · · · · · · · · · · · · · · · ·	
WGSL0025 N/19/2011 16:26 0					<u> </u>				··
WGSL0025 WGSL0025 WGSL0025 WGSL0026 WGSL0026 WGSL0026 WGSL0026 WGSL0026 WGSL0026 WGSL0027 WGSL0028									
WGSL0026						120	120		
WGSL0026 8/19/2011 16:21 O		_				138	138		
WGSL0027 8/12/2011 17:04							,		
WGSL0027 8/12/2011 13*201 0 -2.9 -2.9 140 140 60.0 60.0 60.0 WGSL0027 8/14/2011 13*21 0 -2.9 -2.9 140 140 60.0 60.0 60.0 WGSL0027 8/14/2011 13*23 0 -2.8 -2.9 140 140 60.0 60.0 60.0 WGSL0029 8/14/2011 12*0 0 -9.5 -7.8 140 140 60.0 60.0 60.0 WGSL0029 8/14/2011 17*48 0 -6.5 -6.4 142 142 141 61.1		• •				200			
WGSL0027 8/18/2011 14:312 0		_				140	140		
WGSL0027 N24/2011 14:38									
WGSL0027 NeTage 0 2-9 2-9 60.0						140	140		60.0
WGSL0029			0					60.0	60.0
WGSL0039 WGSL0039 WGSL0039 WGSL0039 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0030 WGSL0031 WGSL0032 WGSL0031 WGSL0032 WGSL0031 WGSL0032 WGSL0032 WGSL0031 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0032 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0033 WGSL0034 WGSL0034 WGSL0034 WGSL0034 WGSL0034 WGSL0034 WGSL0035 WGSL0034 WGSL0034 WGSL0034 WGSL0034 WGSL0035		_	. 0	-9.5	-7.8	140	140	60.0	60.0
WGSL0030						142	142	61.1	61.1
WGSL0030 8/17/2011 17:40 0 -0.3 -0.3 162 162 72.2 71.1 WGSL0030 8/25/2011 15:53 0 -0.5 -0.5 -0.5 72.2 71.1 WGSL0031 8/13/2011 23:06 0 -0.5 -0.5 70.0 70.0 WGSL0031 8/13/2011 13:30 0 -1.2 -1.3 158 156 70.0 68.9 WGSL0031 4/17/2011 17:31 0 -1.7 -1.8 70.0 69.4 WGSL0032 8/13/2011 13:58 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/18/2011 13:58 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/18/2011 13:58 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/16/2011 13:22 0 -0.7<	WGSL0029 A	verage	0	-8.0	-7.1			60.6	60.6
WGSL0030 8/25/201115:53 0 -0.2 -0.2 162 160 72.2 71.1 WGSL0031 8/17/2011 23:06 0 -0.2 -0.2 158 158 70.0 68.9 WGSL0031 8/17/2011 17:31 0 -1.2 -1.3 158 156 70.0 68.9 WGSL0032 Nerrage 0 -1.7 -1.8 158 156 70.0 69.4 WGSL0032 Nerrage 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 Nerrage 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0033 Nerrage 0 -0.9 -0.9 -77.8 77.8 77.8 WGSL0033 Nerrage 0 -1.0 -1.0 -70.7 158 158 70.0 70.0 WGSL0034 Nerrage 0 -2.0 -2.0 -2.0 12.0 12.0 70.0 70.0 70.0 70.0 70.0 <t< td=""><td>WGSL0030</td><td>8/13/2011 23:01</td><td>0</td><td>-1.1</td><td>-1.1</td><td>162</td><td>162</td><td>72.2</td><td>72.2</td></t<>	WGSL0030	8/13/2011 23:01	0	-1.1	-1.1	162	162	72.2	72.2
WGSL0030 N=Fige 0 -0.5 -0.5 -0.5 7.2 71.9 WGSL0031 N=713/2011 23:06 0 -2.2 -2.2 158 158 70.0 68.9 WGSL0031 N=Fige 0 -1.7 -1.8 -70.0 69.4 WGSL0032 N=712/2011 17:26 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 N=8/18/2011 13:58 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 N=Fige 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0033 N=8/18/2011 22:32 0 -0.3 -0.9 172 172 77.8 77.8 WGSL0033 N=8/16/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 N=Fige 0 -0.0 -0.7 -0.7 158 158 70.0 70.0 WGSL0038 N=Fige 0 -0.0 -0.7 -0.7 158 158 53.3 53.3	WGSL0030	8/17/2011 17:40	0	-0.3	-0.3	162	162		
WGSL0031 8/13/2011 23:06 0 -2.2 -2.2 158 158 70.0 68.9 WGSL0031 8/17/2011 17:31 0 -1.2 -1.3 158 156 70.0 68.9 WGSL0032 8/12/2011 17:26 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/12/2011 15:08 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 8/13/2011 12:08 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0033 8/24/2011 15:08 0 -0.9 -0.9 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -1.3 -1.3 158 158 70.0 70.0 WGSL0033 8/13/2011 12:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 12:22 0 -22.0 -23.9 -23.9 128 128 53.3 53.3 53.3	WGSL0030	8/25/2011 15:53	0	-0.2	-0.2	162	160		
WGSL0031 8/17/2011 17:31 0 -1.2 -1.3 158 156 70.0 68.9 WGSL0032 8/12/2011 17:26 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/12/2011 13:58 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 8/12/2011 13:58 0 -2.1 -2.0 172 172 77.8 77.8 WGSL0032 8/13/2011 22:32 0 -2.1 -2.0 172 172 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 18:28 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 53.3 WGSL0034 8/13/2011 10:10 0 -23.0 -22.0 128 128 128 64	WGSL0030 A	verage	0	-0.5	-0.5				
WGSL0031 Average 0 -1.7 -1.8 70.0 69.4 WGSL0032 8/12/2011 17:26 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/24/2011 15:08 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 8/24/2011 15:08 0 -2.1 -2.0 172 172 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -0.9 -0.9 77.8 77.8 WGSL0033 8/16/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2012 2:27 0 -23.9 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/16/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 53.3 WGSL0035 8/14/2010 0:10 0 -31.2 -31.2 -148 148 64.4 64.4 WGSL0035 8/24/2011 13		8/13/2011 23:06	0	-2.2					
WGSL0032 8/12/2011 17:26 0 -0.3 -0.2 172 172 77.8 77.8 WGSL0032 8/18/2011 13:58 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 Average 0 -0.9 -0.9 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -1.3 -1.3 158 158 70.0 70.0 WGSL0033 8/13/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/13/2011 18:28 0 -20.0 -22.0 -22.0 128 128 53.3 53.3 WGSL0034 8/14/2011 0:10 0 -31.2 -31.2 148 148 64.4 64.4 WGSL0035 8/14/2011 0:13 0 -27.2 -27.2 148 148 64.4 64.4						158	156		
WGSL0032 8/18/2011 13:58 0 -0.3 -0.4 172 172 77.8 77.8 WGSL0032 8/24/2011 15:08 0 -2.1 -2.0 172 172 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -0.9 -0.9 158 158 70.0 70.0 WGSL0033 8/16/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/13/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 WGSL0035 8/14/2011 10:10 0 -31.2 -31.2 -41.8 148 64.4 64.4 WGSL0035 8/14/2011 10:13 0 -28.7 -28.7 148 148 64.4 64.4 WGSL0035 8/14/2011 0:13 0 -28.7 -28.7 148 148 64.4 <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		-							
WGSL0032 8/4/2011 15:08 0 -2.1 -2.0 172 172 77.8 77.8 WGSL0032 Average 0 0.9 -0.9 -77.8 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -1.3 -1.3 158 158 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/16/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 WGSL0035 8/14/2011 0:10 0 -31.2 -31.2 148 148 64.4 64.4 WGSL0035 8/14/2011 16:12 0 -27.2 -27.2 148 148 64.4 64.4 WGSL0035 8/14/2011 0:13 0 -30.3 -30.4 150 150 65.6 65.6 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
WGSL0032 Average 0 -0.9 -0.9 -0.9 -0.9 -0.9 77.8 77.8 WGSL0033 8/13/2011 22:32 0 -1.3 -1.3 158 158 70.0 70.0 WGSL0033 8/16/2011 12:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/16/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 WGSL0034 Average 0 -23.0 -23.0 128 128 53.3 53.3 WGSL0035 8/14/2011 0:10 0 -31.2 -31.2 148 148 64.4 64.4 WGSL0035 8/19/2011 16:12 0 -27.2 -27.2 148 148 64.4 64.4 WGSL0035 8/19/2011 16:13 0 -28.7 -28.7 148 148 64.4 64.4 WGSL0035 8/19/2011 16:15 0 -29.0 -29.0 150 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
WGSL0033 8/13/2011 22:32 0 -1.3 -1.3 158 158 70.0 70.0 WGSL0033 8/16/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0033 8/13/2011 22:27 0 -1.0 -1.0 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 Average 0 -22.0 -22.0 128 128 53.3 53.3 WGSL0035 8/14/2011 0:10 0 -31.2 -31.2 148 148 64.4 64.4 WGSL0035 8/14/2011 13:30 0 -27.2 -27.2 -28.7 148 148 64.4 64.4 WGSL0035 8/14/2011 0:13 0 -29.0 -29.0 -29.0 -64.4 64.4 WGSL0036 8/14/2011 0:13 0 -26.4 -26.4 150 150 65.6 65.6 WGSL0036						172	172		
WGSL0033 8/16/2011 18:22 0 -0.7 -0.7 158 158 70.0 70.0 WGSL0034 8/13/2011 22:27 0 -23.9 -23.9 -23.9 128 128 53.3 53.3 WGSL0034 8/16/2011 18:28 0 -22.0 -22.0 128 128 53.3 53.3 WGSL0035 8/14/2010 0:10 0 -23.0 -23.0 -23.0 53.3 53.3 WGSL0035 8/14/2011 0:10 0 -31.2 -31.2 148 148 64.4 64.4 WGSL0035 8/14/2011 0:13 0 -22.7 -27.2 148 148 64.4 64.4 WGSL0035 8/24/2011 13:30 0 -28.7 -28.7 148 148 64.4 64.4 WGSL0036 8/14/2011 0:13 0 -29.0 -29.0 -29.0 64.4 64.4 WGSL0036 8/14/2011 16:15 0 -26.4 -26.4 150 150 65.6 65.6		_							
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WGSL0040 8/16/2011 18:10 0 -17.9 -17.9 128 128 53.3 53.3 WGSL0040 Average 0 -17.9 -17.9 128 128 53.3 53.3 WGSL0041 8/13/2011 23:20 0 -9.5 -9.6 128 128 53.3 53.3 WGSL0041 8/17/2011 17:21 0 -8.4 -8.5 128 128 53.3 53.3 WGSL0041 Average 0 -9.0 -9.1 53.3 53.3 WGSL0042 8/13/2011 22:16 0 -29.9 -29.9 124 124 51.1 51.1 WGSL0042 8/16/2011 18:33 0 -26.6 -26.5 124 124 51.1 51.1 WGSL0044 8/14/2011 0:37 0 -1.0 -1.0 172 172 77.8 77.8		verage						54.4	54.4
WGSL0041 8/13/2011 23:20 0 -9.5 -9.6 128 128 53.3 53.3 WGSL0041 8/17/2011 17:21 0 -8.4 -8.5 128 128 53.3 53.3 WGSL0041 Average 0 -9.0 -9.1 53.3 53.3 WGSL0042 8/13/2011 22:16 0 -29.9 -29.9 124 124 51.1 51.1 WGSL0042 8/16/2011 18:33 0 -26.6 -26.5 124 124 51.1 51.1 WGSL0042 Average 0 -28.3 -28.2 51.1 51.1 WGSL0044 8/14/2011 0:37 0 -1.0 -1.0 172 172 77.8 77.8	WGSL0040	8/16/2011 18:10		-17.9	-17.9	128	128	53.3	53.3
WGSL0041 8/17/2011 17:21 0 -8.4 -8.5 128 128 53.3 53.3 WGSL0041 Average 0 -9.0 -9.1 53.3 53.3 WGSL0042 8/13/2011 22:16 0 -29.9 -29.9 124 124 51.1 51.1 WGSL0042 8/16/2011 18:33 0 -26.6 -26.5 124 124 51.1 51.1 WGSL0042 Average 0 -28.3 -28.2 51.1 51.1 WGSL0044 8/14/2011 0:37 0 -1.0 -1.0 172 172 77.8 77.8	WGSL0040 A	verage	.0	-17.9	-17.9			53.3	53.3
WGSL0041 Average 0 -9.0 -9.1 53.3 53.3 WGSL0042 8/13/2011 22:16 0 -29.9 -29.9 124 124 51.1 51.1 WGSL0042 8/16/2011 18:33 0 -26.6 -26.5 124 124 51.1 51.1 WGSL0042 Average 0 -28.3 -28.2 51.1 51.1 WGSL0044 8/14/2011 0:37 0 -1.0 -1.0 172 172 77.8 77.8	WGSL0041	8/13/2011 23:20	0	-9.5					
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WGSL0042 8/16/2011 18:33 0 -26.6 -26.5 124 124 51.1 51.1 WGSL0042 Average 0 -28.3 -28.2 51.1 51.1 WGSL0044 8/14/2011 0:37 0 -1.0 -1.0 172 172 77.8 77.8	WGSL0041 A	verage	0						
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	WGSL0044	8/19/2011 16:00	0	-0.2	-0.2	172	172	77.8	77.8

Attachment	5 -	Monitoring	Data	(August 2011)
According to	•	IVIOLITICATING	vala	IWASASE SOTTI

	 	r	Attachment	5 - Monitoring I	Data (August 20:	l1)		y
İ		02	Initial Static	Adjusted Static	Initial	Adjusted	Initial	Adjusted
, in		(Oxygen)	Pressure	Pressure	Temperature	Temperature	Temperature	Temperature
Device ID	Date Time	(%)	("H2O)	("H2O)	(Deg F)	(Deg F)	(Deg C)	(Deg C)
WGSL0044	8/24/2011 14:04	0	-0.4	-0.4	172	172	77.8	77.8
WGSL0044 A	-	0	-0.5	-0.5			77.8	77.8
WGSL0046	8/13/2011 23:11	0	-31.1	-31.1	130	130	54.4	54.4
WGSL0046	8/17/2011 17:26	0	-28.0	-28.0	132	132	55.6	55.6
WGSL0046 A		0	-29.6	-29.6			55.0	55.0
WGSL0047	8/13/2011 22:52		-1.6	-1.6	168	168	75.6	75.6
WGSL0047	8/17/2011 16:59	0	-0.5	-0.5	168	168	75.6	75.6
WGSL0047	8/25/2011 15:06	0	-0.8	-0.7	170	170	76.7	76.7
WGSL0047 A		. 0	-1.0	-0.9			75.9	75.9
WGSL0048	8/14/2011 1:45	0	-0.9	-0.7	168	168	75.6	75.6
WGSL0048	8/18/2011 14:09	0	-0.4	-0.4	168	168	75.6	75.6
WGSL0048	8/24/2011 15:17		-1.4	-1.4	172	172	77.8	77.8
WGSL0048	8/25/2011 15:12	0	-1.2	-1.2	170	170	76.7	76.7
WGSL0048 Av	-	0	-1.0	-0.9			76.4	76.4
WGSL0049	8/12/2011 17:17	0	-0.2	-0.2	168	168	75.6	75.6
WGSL0049	8/18/2011 13:42	0	-0.1	-0.1	168	168	75.6	75.6
WGSL0049	8/24/2011 14:53	0	-0.5	-0.5	168	170	75.6	76.7
WGSL0049 Av	-	. 0	-0.3	-0.3			75.6	75.9
WGSLGW02	8/12/2011 17:11	0	-0.1	-0.2	168	168	75.6	75.6
WGSLGW02	8/18/2011 13:35	0	-0.4	-0.4	168	168	75.6	75.6
WGSLGW02	8/24/2011 14:46	0	-0.7	-0.4	172	172	77.8	77.8
WGSLGW02 A	-	0	-0.4	-0.3			76.3	76.3
WGSLGW06	8/12/2011 17:21	0 -		-0.1	160	160	71.1	71.1
WGSLGW06	8/18/2011 13:49	0	-0.3	-0.2	160	160	71.1	71.1
WGSLGW06	8/24/2011 14:58	0	-0.4	-0.3	156	156	68.9	68.9
WGSLGW06 A	_	0	-0.2	-0.2			70.4	70.4
WGSLGW07	8/14/2011 0:48	0	-1.2	-1.2	170	172	76.7	77.8
WGSLGW07	8/18/2011 13:07	0	-0.6	-0.6	170	170	76.7	76.7
WGSLGW07	8/24/2011 14:25	0	-0.6	-0.6	170	170	76.7	76.7
WGSLGW07 A	-	0	-0.8	-0.8			76.7	77.0
WGSLGW08	8/14/2011 0:45	0	-1.3	-1.3	144	144	62.2	62.2
WGSLGW08	8/19/2011 15:51	0	-0.3	-0.3	144	144	62.2	62.2
WGSLGW08	8/24/2011 14:18	0	-0.8	-0.8	142	144	61.1	62.2
WGSLGW08 A	-	0	-0.8	-0.8			61.9	62.2
WGSLGW09	8/14/2011 1:40	0	-0.8	-0.8	160	160	71.1	71.1
	8/18/2011 14:05	0	-0.3	-0.3	160	160	71.1	71.1
WGSLGW09	8/24/2011 15:13	0	-1.6	-1.6	164	164	73.3	73.3
WGSLGW09 A	-	0	-0.9	-0.9			71.9	71.9
WGSLGW11	8/13/2011 22:55	0	-0.6	-0.6	144	144	62.2	62.2
WGSLGW11	8/17/2011 16:56	0	-0.2	-0.2	144	144	62.2	62.2
WGSLGW11	8/25/2011 14:28	0	-0.4	-0.4	146	146	63.3	63.3
WGSLGW11 A	=	0	-0.4	-0.4			62.6	62.6
WGSLGW12	8/14/2011 0:40	0	-0.6	-0.6	148	148	64.4	64.4
WGSLGW12	8/19/2011 15:54	0	-0.2	-0.3	148	148	64.4	64.4
WGSLGW12	8/24/2011 14:10	0	-1.0	-0.5	148	148	64.4	64.4
WGSLGW12 A	U .	0	-0.6	-0.5			64.4	64.4
WGSLGW13	8/13/2011 22:47	0	-0.7	-0.7	158	158	70.0	70.0
WGSLGW13	8/17/2011 17:06	0	-0.2	-0.2	158	158	70.0	70.0
WGSLGW13 A	-	0	-0.5	-0.5			70.0	70.0
WGSLGW14	8/14/2011 0:34	0	-2.2	-2.2	148	148	64.4	64.4
WGSLGW14	8/19/2011 15:57	0	-1.4	-1.3	148	148	64.4	64.4
WGSLGW14	8/24/2011 13:58	0	-1.9	-1.9	146	146	63.3	63.3
WGSLGW14 A	verage	0	-1.8	-1.8			64.1	64.1

Attachment 5 - Monitoring Data (August 2011)

								1
		O2	Initial Static	Adjusted Static	Initial	Adjusted	Initial	Adjusted
		(Oxygen)	Pressure	Pressure	Temperature	Temperature	Temperature	Temperature
Device ID	Date Time	(%)	("H2O)	("H2O)	(Deg F)	(Deg F)	(Deg C)	(Deg C)
WGSLGW15	8/13/2011 22:39	. 0	-0.6	-0.6	144	144	62.2	62.2
WGSLGW15	8/17/2011 17:11	0	-0.2	-0.3	146	146	63.3	63.3
WGSLGW15 Average		0	-0.4	-0.5			62.8	62.8
WGSLGW24	8/14/2011 0:30	0	-1.4	-1.4	162	162	72.2	72.2
WGSLGW24	8/19/2011 16:03	0	-0.3	-0.3	162	162	72.2	72.2
WGSLGW24	8/24/2011 13:51	0	-0.8	-0.8	164	164	73.3	73.3
WGSLGW24	Average	0	-0.8	-0.8			72.6	72.6

KOOLINA

HAWAI'I

December 29, 2011

Via Email (JWhelan1@sm.com) and First Class Mail

Mr. Joe Whelan General Manager Waste Management of Hawaii 92-460 Farrington Highway Kapolei, Hawaii 96707

Subject:

Odor from Waimanalo Gulch Landfill

Dear Mr. Whelan:

On December 18, 2011, my office received complaints from residents of Kai Lani that the odor from the landfill was overwhelming and stronger than usual - to a point where windows could not be left open.

Please respond with reasons for why this happened and your plan to ensure that it does not recur.

Very truly yours,

Ken Williams

Executive Vice President

Copy to:

Mayor Peter Carlisle

Senator Maile Shimabukuro

Council Chair Nestor R. Garcia

Kapolei Neighborhood Board

Attn: Chair Maeda Timson

Nanakuli Neighborhood Board

Attn: Chair Patty Teruya

Department of Environmental Services

Attn: Tim Steinberger, Director

Manny Lanuevo, Deputy Director

Department of Health

Attn: Janice Okubo

State Land Use Commission

Attn: Vladimir Devens

Department of Land and Natural Resources

Attn: William Aila





WASTE MANAGEMENT

92-460 Farrington Hwy. Kapolei, HI 96707 (808) 668-2985 (808) 668-1366 Fax

By Email & USPS Certified Mail

August 18, 2011

John Brock Air Enforcement Office U.S. Environmental Protection Agency, Region IX 75 Hawthorne Street San Francisco, CA 94105 E-mail: Brock.John@epamail.epa.gov

Ronald Ho Clean Air Branch Hawaii Department of Health 919 Ala Moana Blvd., Suite 203 Honolulu, Hawaii 96814 E-mail: Ronald.ho@doh.hawaii.gov

RE:

Waimanalo Gulch Municipal Solid Waste Landfill

Missed Reading Notification

Covered Source Permit No. 0489-01-C

As requested, this letter provides independent notification of the information previously reported in the semi-annual Report dated August 30, 2011.

As reported, in early August 2011, Waste Management of Hawaii, Inc. (WMH) identified suspect readings from recent wellhead monitoring and undertook an investigation. On August 26, 2011, the WMH employee admitted that he had failed to take numerous wellhead readings and instead fabricated those readings. WMH has terminated that employee and is undertaking further investigation to determine the scope of noncompliance. Therefore, the values reported for the 6-month average and maximum gauge pressures, oxygen concentrations, and temperatures are based on only the values for those wells and sampling events that were actually measured. The semiannual report does not include data that WMH reasonably suspects or has confirmed is not actual data taken for the wells.

Following completion of our investigation, a copy of our findings will be shared with your office. If you have additional questions please contact me at 808-668-2985.

Respectfully,

Justin H. Lottig

Environmental Protection Manager. Waste Management of Hawaii Inc.

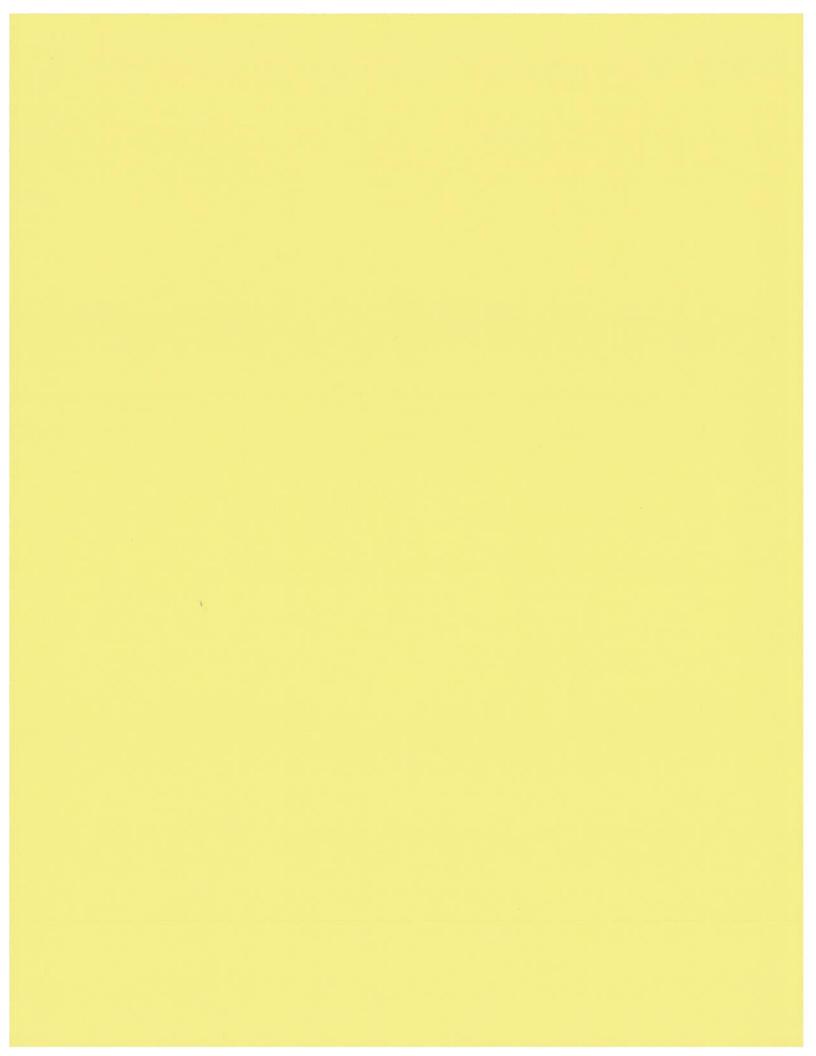
CC: File

via e-mail

Wayne Hamada - CCH Joseph Whelan - WMH

EXHIBIT K158

From everyday collection to environmental protection, Think Green: Think Waste Management.



BEFORE THE PLANNING COMMISSION

OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAI'I

In the Matter of the Application of FILE NO. 2008/SUP-2

DEPARTMENT OF ENVIRONMENTAL SERVICES, CITY AND COUNTY OF HONOLULU

To delete Condition No. 14 of Special Use Permit No. 2008/SUP-2 (also referred to as Land Use Commission Docket No. SP09-403) which states as follows:

"14. Municipal solid waste shall be allowed at the WGSL up to July 31, 2012, provided that only ash and residue from H-POWER shall be allowed at the WGSL after July 31, 2012."

CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

The undersigned certifies that on this day a copy of the foregoing document was duly served on the following persons:

ROBERT CARSON GODBEY, ESQ. Corporation Counsel DANA VIOLA, ESQ. ROBERT BRIAN BLACK, ESQ. **Deputies Corporation Counsel** City and County of Honolulu 530 South King Street, Room 110 Honolulu, Hawai'i 96813

(Hand Delivery)

Attorneys for DEPARTMENT OF ENVIRONMENTAL SERVICES, CITY AND COUNTY OF HONOLULU

DEPARTMENT OF ENVIRONMENTAL SERVICES (Certified Mail) City and County of Honolulu 1000 Uluohia Street, Suite 308 Kapolei, Hawai'i 96707

DEPARTMENT OF PLANNING AND PERMITTING (Hand Delivery)
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

IAN L. SANDISON, ESQ.
DEAN H. ROBB, ESQ.
TIM LUI-KWAN, ESQ.
Carlsmith Ball LLP
American Savings Bank Tower
1001 Bishop Street, Suite 2200
Honolulu, Hawai'i 96813

(Hand Delivery)

Attorneys for Intervenor SCHNITZER STELL HAWAII CORP.

DATED: Honolulu, Hawai'i, December 30, 2011.

CADES SCHUTTE A Limited Liability Law Partnership

CALVERT G. CHIPCHASE CHRISTOPHER T. GOODIN

Attorneys for Intervenors KO OLINA COMMUNITY ASSOCIATION and MAILE SHIMABUKURO