OTTILIO LANDFILL (08088)
PCP220002

Date: 8/19/2022

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: PCP **Number:** 80001

Description of Modifications: Since 2006, the vents have been tested in accordance with the permit. Initially, the vents were sampled on a monthly basis for six months; this was done from 11-2006 through 3-2007. Then they were sampled on a quarterly basis from July 2007 to the present. The last of the quarterly sampling was done in 2008.

In 2009 the sampling was modified to go to a semi annual schedule. This schedule has continued until the present. The results of semi annual sampling has shown that detected levels are well below the permit reporting thresholds. Therefore, the Bureau of Site Management is requesting to eliminate sampling requirements and requirements for use of GAC units.

OTTILIO LANDFILL (08088)
PCP220002

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): V Ottilio

Facility ID (AIMS): 08088

Street Address: 180 RAYMOND BLVD
NEWARK , NJ 07105

Mailing Address: 92 N MAIN ST
BUILIDNG 20 UNIT C
PO BOX 36
WINDSOR , NJ 08561

State Plane Coordinates:

X-Coordinate:	595,883
Y-Coordinate:	693,277
Units:	Feet
Datum:	Unknown
Source Org.:	Other/Unknown
Source Type:	Other/Unknown

County: Essex

Location Description: V Ottilio Landfill

Industry:

Primary SIC:

Secondary SIC:

NAICS:

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: NJDEP
Org. Type: State
Name: Ryan Clark
NJ EIN:
Title: Environmental Specialist
Phone: (609) 439-1746 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: Ryan.Clark@dep.nj.gov
Mailing Address: 401 E State St
PO BOX 420
Trenton, NJ 08625

Contact Type: Fees/Billing Contact

Organization: NJDEP
Org. Type: State
Name: Ryan Clark
NJ EIN:
Title: Environmental Specialist
Phone: (609) 439-1746 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: Ryan.Clark@dep.nj.gov
Mailing Address: 401 E State St
PO BOX 420
Trenton, NJ 08625

Contact Type: General Contact

Organization: NJDEP
Org. Type: State
Name: Ryan Clark
NJ EIN:
Title:
Phone: ( ) - x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: ryan.clark@dep.nj.gov
Mailing Address: 401 E state St
PO 420 Mail Code 401-05R
Trenton, NJ 08625

OTTILIO LANDFILL (08088)
PCP220002

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Responsible Official**

Organization: NJDEP
Name: Fred Mumford
Title: Bureau Chief
Phone: (609) 376-9427 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: Fred.Mumford@dep.nj.gov

Org. Type: State
NJ EIN:

Mailing Address: 401 E State Street
PO Box 420
Trenton, NJ 08625

OTTILIO LANDFILL (08088) Date: 8/19/2022

PCP220002

New Jersey Department of Environmental Protection
Facility Profile (Permitting)

1. Is this facility classified as a small business by the USEPA?	No
2. Is this facility subject to N.J.A.C. 7:27-22?	
3. Are you voluntarily subjecting this facility to the requirements of Subchapter 22?	No
4. Has a copy of this application been sent to the USEPA?	No
5. If not, has the EPA waived the requirement?	
6. Are you claiming any portion of this application to be confidential?	No
7. Is the facility an existing major facility?	No
8. Have you submitted a netting analysis?	No
9. Are emissions of any pollutant above the SOTA threshold?	No
10. Have you submitted a SOTA analysis?	No
11. If you answered "Yes" to Question 9 and "No" to Question 10, explain why a SOTA analysis was not required	
12. Have you provided, or are you planning to provide air contaminant modeling?	No

OTTILIO LANDFILL (08088)
PCP220002

Date: 08/19/2022

New Jersey Department of Environmental Protection
Non-Source Fugitive Emissions

FG NJID	Description of Activity Causing Emission	Location Description	Reasonable Estimate of Emissions (tpy)								
			VOC (Total)	NOx	CO	SO	TSP (Total)	PM-10	Pb	HAPS (Total)	Other (Total)
FG1											
Total											

OTTILIO LANDFILL (08088)
PCP220002

Date: 8/19/2022

New Jersey Department of Environmental Protection
Insignificant Source Emissions

IS NJID	Source/Group Description	Equipment Type	Location Description	Estimate of Emissions (tpy)								
				VOC (Total)	NOx	CO	SO	TSP	PM-10	Pb	HAPS (Total)	Other (Total)
IS1		Landfill		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
Total												

OTTILIO LANDFILL (08088) Date: 8/19/2022

PCP220002

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1			Landfill			No		

OTTILIO LANDFILL (08088) Date: 8/19/2022

PCP220002

New Jersey Department of Environmental Protection
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID

OTTILIO LANDFILL (08088)
PCP220002

Date: 8/19/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		

OTTILIO LANDFILL (08088)
PCP220002

Date: 8/19/2022

New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

Compliance Schedule

new jersey department of environmental protection njdep

njdep online

AQPP Air Quality Permitting Program

RADIUS Certification Authorization Form

This certification authorization is required to satisfy the federal reporting requirements of EPA's Cross-Media Electronic Reporting Regulations (CROMERR). Users who wish to complete major source (Title V) RADIUS Emission Statement submittals and Operating Permit applications via NJDEP Online must fill out this form and submit it to NJDEP in order to obtain the authorization necessary to certify the submittals.

This Certification Authorization Form is only required for individuals at major source (Title V) facilities who wish to submit RADIUS files online. It is not required for minor source submittals, or for major or minor source submittals sent via postal mail, since those are not subject to CROMERR.

Instructions

ONE FORM PER CERTIFIER

Please note that each certifier must complete a separate RADIUS Certification Authorization Form.

1. Prior to submission of this form, users must create an account in NJDEP Online. If you do not already have an account, you can create one by following the instructions at: http://njdeponline.com/.
2. Fill out Part A of this form: Certifier Information. All items in this section are required.
3. Fill out Part B of the form if you are a Responsible Official as described in Part B
   and/or
   Fill out Part C of the form if you are an Individual With Direct Knowledge as described in Part C.
   Note that you must be either a Responsible Official or an Individual With Direct Knowledge at a facility in order to be able to certify permit applications or emission statements for that facility. Some users may fill both roles.
4. Mail or fax the completed and signed form to:

   NJDEP Air Quality Permitting Program
   ATTN: RADIUS Certification Authorization
   Mail Code 401-02
   P.O. Box 420
   Trenton, NJ 08625-0420
   FAX: (609) 292-1028

Part A. Certifier Information

Note: All fields are required. If any information is not provided, the form may be rejected as incomplete by DEP.

Name:	Organization:	Title:
Ryan Clark	NJDEP	Environmental Specialist
Mailing Address:		
401 E. State St. Trenton NJ 08625 Mail Code 401-05R PO Box 420		
Telephone Number:	**E-mail Address:**	**DEP Online User ID:**
609-439-1746	Ryan.Clark@dep.nj.gov	RCLARK1292

Part B. Request for Responsible Official (RO) Role

Fill out this section if you are a Responsible Official at one or more facilities.

I request the Responsible Official (RO) role for the facility(s) identified below in order to be able to submit and certify RADIUS files on behalf of the facility(s) in DEP Online.

A Responsible Official is defined in the New Jersey Administrative Code as one of the following:

- **For a corporation:** (i) A president, secretary, treasurer, or vice president of the corporation, who is in charge of a principal business function; (ii) Any other person who performs similar policy or decision making functions for the corporation; or (iii) A duly authorized representative of the person in (i) or (ii) above, if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a preconstruction permit or certificate, or an operating permit, and either: (1) The facilities for which the representative is responsible employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or (2) The delegation of authority to the representative is approved in writing in advance by the Department
- **For a partnership:** A general partner
- **For a sole proprietorship:** The proprietor
- **For a government agency:** A ranking elected official or a principal executive officer

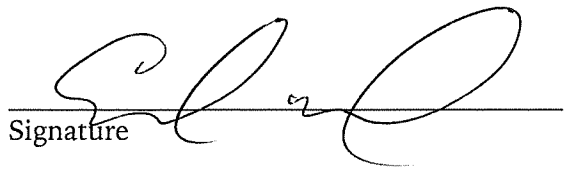
Responsible Official access requested for:

Facility ID (Program Interest Number)	**Facility Name**	**Facility Telephone Number**	**Facility Address**
08088	V OTTILIO	609 439 1746	180 Raymond Blvd, Newark 07105

Attach additional sheets if necessary.

Responsible Official Certification and Signature

I certify under penalty of law that all documents and attachments submitted electronically under my User ID were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I accept full legal responsibility as the Responsible Official for all information submitted electronically for the facilities for which I am the Responsible Official. I understand that the unique combination of the password, Challenge Question responses, and PIN associated with my User ID comprise my electronic signature, which is legally binding as if it were my handwritten signature. Therefore, I will not share my password, Challenge Question responses, or PIN with any other person, and I will protect my password, Challenge Question responses, and PIN at all times. If any of these credentials are compromised, I will change my password and PIN and notify NJDEP immediately at portalcomments@dep.state.nj.us.



Signature

6/1/22

Date

Part C. Request for Individual With Direct Knowledge (IWDK) Role

Fill out this section if you are an Individual With Direct Knowledge at one or more facilities.

I request the Individual With Direct Knowledge (IWDK) role for the facility(s) identified below in order to be able to submit and certify RADIUS files on behalf of the facility(s) in DEP Online.

An Individual With Direct Knowledge is the individual or individuals (including any consultants) with direct knowledge of and responsibility for the information contained in the certified document.

Individual With Direct Knowledge access requested for:

Facility ID (Program Interest Number)	**Facility Name**	**Facility Address**	**Facility Contact & Telephone Number***
08088	V Ottilio	180 Raymond Blvd Newark 07105	Ryan Clark 609-439-1746

**This is the name and telephone number of someone at the facility who can verify your authority to submit files on the facility's behalf.*

Attach additional sheets if necessary.

Individual With Direct Knowledge Certification and Signature

I certify under penalty of law that all documents and attachments submitted electronically under my User ID are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I understand that the unique combination of my Password, Challenge Question Responses, and PIN associated with my User ID comprise my electronic signature, which is legally binding as if it were my handwritten signature. Therefore, I will not share my Password, Challenge Question Responses, or PIN with any other person, and I will protect my Password, Challenge Question Responses, and PIN at all times. If any of these credentials are compromised, I will change my password and PIN and notify NJDEP immediately at portalcomments@dep.state.nj.us.

Ryan Clark
Signature

6/1/2022
Date

This page is for NJ DEP Use Only

☐ This request has been approved in its entirety.

<OR>

☐ This request has been approved with the following exceptions:

List exceptions and reason for exceptions here:

Access Level (RO/IWDK)	*Facility ID (PIN)*	*Facility Name*	*Reason for Exception*

Reviewed and Approved By:

_____

Name of DEP Official

_____ _____

Signature *Date*

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation and Waste Management Program
401 East State Street
P.O. Box 420, Mail Code 401-06
Trenton, NJ 08625-0420
Tel: (609) 292-1250
Fax: (609) 777-1914

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Acting Commissioner

M E M O R A N D U M

TO: JEANETTE ABELS, OPERATIONS MANAGER
BUREAU OF SITE MANAGEMENT

FROM: CHAD VAN SCIVER, SRTS *CVS 6/10/2021*
BUREAU OF ENVIRONMENTAL MEASUREMENTS AND SITE ASSESSMENT

SUBJECT: OTTILIO LANDFILL
PASSIVE VENT SAMPLING
DETERMINATION OF LANDFILL GAS DISCHARGE
PERMIT # PCP 080001, FACILITY ID # 08088
May 20, 2021, Sampling Event

The NJDEP/Environmental Measurements Section performed sampling of the passive gas vents at the Ottilio Landfill Site with the measurements and analysis of the gas samples by direct reading instruments. Samples were collected on May 20, 2021.

The Post-Closure Monitoring Plan for the Ottilio Landfill requires the determination of the efficiency of the carbon system in removing contaminants from the passive vent discharge. This is performed by analyzing the discharge of the carbon unit and the passive vent and calculating the % Removal Efficiency by the following formula:

% Removal Efficiency = $(VOC_{carbon} - VOC_{vent})/VOC\ vent * 100\%$

The Air Permit (Permit Activity Number PCP 080001) for the site also requires the reporting of the following information:

1. Sampling Date
2. SCFM
3. DRI Reading
4. Response Factor
5. $\%O_2$
6. VOC ppm
7. VOC lbs/hr

I have calculated the parameters and tabulated the required information which is included in Table 1. All sampling, analysis and calculations followed the procedures set in the protocol for the "Test Protocol for the Passive Vent Monitoring Program at the Ottilio Landfill Site; April 2005". The only exception was due to the low CH_4 concentrations, an FID was used due to its advantage of the high ionization potential of 15.4 eV as compared to the PID 11.7 eV. This gives the advantage of the FID to detect a greater number of compounds vs the PID in non-methane atmospheres. Concentrations from the use of the FID were reported as ppm Propane.

The carbon control efficiency, SCFM and ppm permit limit were all within the permit limits with no exceedances.

In addition, soil gas samples from the (12)-twelve soil gas probes around the landfill were collected and analyzed with direct reading instruments (DRI). The results are included on Table 4 of the excel spread sheet. The next round of sampling is scheduled for October of 2021. If you have any questions, please don't hesitate to contact me.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Acting Commissioner

M E M O R A N D U M

TO: JEANETTE ABELS, OPERATIONS MANAGER
BUREAU OF SITE MANAGEMENT

FROM: CHAD VAN SCIVER, SRTS *CVS 11/9/21*
BUREAU OF ENVIRONMENTAL MEASUREMENTS AND SITE ASSESSMENT

SUBJECT: OTTILIO LANDFILL
PASSIVE VENT SAMPLING
DETERMINATION OF LANDFILL GAS DISCHARGE
PERMIT # PCP 080001, FACILITY ID # 08088
October 29, Sampling Event

The NJDEP/Environmental Measurements Section performed sampling of the passive gas vents at the Ottilio Landfill Site with the measurements and analysis of the gas samples by direct reading instruments. Samples were collected on October 29, 2021.

The Post-Closure Monitoring Plan for the Ottilio Landfill requires the determination of the efficiency of the carbon system in removing contaminants from the passive vent discharge. This is performed by analyzing the discharge of the carbon unit and the passive vent and calculating the % Removal Efficiency by the following formula:

% Removal Efficiency = $(VOC_{carbon} - VOC_{vent})/VOC\ vent * 100\%$

I have calculated the parameters and tabulated the required information which is included in Table 1. All sampling, analysis and calculations followed the procedures set in the protocol for the "Test Protocol for the Passive Vent Monitoring Program at the Ottilio Landfill Site; April 2005". The only exception was due to the low CH_4 concentrations, an FID was used due to its advantage of the high ionization potential of 15.4 eV as compared to the PID 11.7 eV. This gives the advantage of the FID to detect a greater number of compounds vs the PID in non-methane atmospheres. Concentrations from the use of the FID were reported as ppm Propane.

The carbon control efficiency, SCFM and ppm permit limit were all within the permit limits with no exceedances.

In addition, soil gas samples from the (12)-twelve soil gas probes around the landfill were collected and analyzed with direct reading instruments (DRI). The results are included on Table 4 of the excel spread sheet. The next round of sampling is scheduled for April 2021. If you have any questions, please don't hesitate to contact me.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation and Waste Management Program
401 East State Street
P.O. Box 420, Mail Code 401-06
Trenton, NJ 08625-0420
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PHILIP D. MURPHY
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CATHERINE R. McCABE
Acting Commissioner

M E M O R A N D U M

TO: JEANETTE ABELS, OPERATIONS MANAGER
BUREAU OF SITE MANAGEMENT

FROM: CHAD VAN SCIVER, SRTS CVS 1/14/21
BUREAU OF ENVIRONMENTAL MEASUREMENTS AND SITE ASSESSMENT

SUBJECT: OTTILIO LANDFILL
PASSIVE VENT SAMPLING
DETERMINATION OF LANDFILL GAS DISCHARGE
PERMIT # PCP 080001, FACILITY ID # 08088
October 8, 2020 Sampling Event

The NJDEP/Environmental Measurements Section performed sampling of the passive gas vents at the Ottilio Landfill Site with the measurements and analysis of the gas samples by direct reading instruments. Samples were collected on October 8, 2020.

The Post-Closure Monitoring Plan for the Ottilio Landfill requires the determination of the efficiency of the carbon system in removing contaminants from the passive vent discharge. This is performed by analyzing the discharge of the carbon unit and the passive vent and calculating the % Removal Efficiency by the following formula:

% Removal Efficiency = $(VOC_{carbon} - VOC_{vent})/VOC\ vent * 100\%$

The Air Permit (Permit Activity Number PCP 080001) for the site also requires the reporting of the following information:

1. Sampling Date
2. SCFM
3. DRI Reading
4. Response Factor
5. $\%O_2$
6. VOC ppm as Benzene
7. VOC lbs/hr

I have calculated the parameters and tabulated the required information which is included in Table 1. The efficiency of the carbon system in removing contaminants from the passive vent discharge was able to be measured this round since the carbon tanks were repaired and placed back on-line.

All sampling, analysis and calculations followed the procedures set in the protocol for the "Test Protocol for the Passive Vent Monitoring Program at the Ottilio Landfill Site; April 2005". There were some alterations to the procedure that were required due to equipment limitations discovered upon ordering. The sampling procedure states that a PID detector would be used with an 11.7ev lamp. This instrument is no longer provided by the EESC. Therefore, a PID with a 10.6ev lamp was used. The PID response was reported as benzene.

The carbon control efficiency, SCFM and ppm permit limit were all within the permit limits with no exceedances.

Also used for information and as a backup was an FID in conjunction with charcoal tubes to determine the NMOC concentrations in the vent and carbon unit discharge. The calculation of the % efficiency of the carbon was difficult as measured with the FID due to the extremely low concentrations of NMOC from the vent discharge. Also, the windy conditions may have added to the variability in the readings. Concentrations from the use of the FID were reported as ppm Propane.

The next round of sampling is scheduled for April of 2021. If you have any questions, please don't hesitate to contact me.

TABLE 1
OTTILO LANDFILL
PASSIVE VENT SAMPLING AND ANALYSIS RESULTS
SAMPLING DATE 10/8/2020

Location	Date	Opacity	ACFM	SCFM	Reading	Response Factor Multiplier	%O2	VOC (ppm-Benzene)	VOC (lb/hr as Benzene)	Carbon Control Efficiency %	SCFM Permit Limit	PPM Permit Limit	Carbon Control Efficiency Criteria
CD-1	10/8/2020	Clear	0.05	0.0462	0.00	0.702	20.4	0.00	0.000000	100	240 CFM	25 ppm	**95%**
CD-2	10/8/2020	Clear	0.03	0.0302	0.00	0.702	20.6	0.00	0.000000	100	240 CFM	25 ppm	**95%**
CD-3	10/8/2020	Clear	0.09	0.0899	0.00	0.702	20.9	0.00	0.000000	100	240 CFM	25 ppm	**95%**

TABLE 1
OTTILO LANDFILL
PASSIVE VENT SAMPLING AND ANALYSIS RESULTS
DATE 10/29/2021

	lbs/hr	lbs/hr LIMIT
TOTAL SITE EMISSION OF NMOC AS PROPANE =	**0.000000000**	0.001908
TOTAL SITE EMISSION OF METHANE =	**0.000000000**	0.744091
TOTAL SITE EMISSION OF CARBON DIOXIDE =	**0.018117457**	
TOTAL SITE EMISSIONS; ACFM	**0.1310**	240 ACFM
TOTAL SITE EMISSIONS; SCFM	**0.1296**	

Carbon Tank Efficiency

	CD-1	CD-2	CD-3
INF-VOC-NMHC-Propane (ppm)	98.58	0.81	434.00
EFF-VOC-NMHC-Propane (ppm)	0.00	0.00	0.00
% VOC REMOVAL	**100.00%**	**100.00%**	**100.00%**
	REMOVAL LIMIT-95% or less than 25 ppm		
OPACITY OF DISCHARGE	**Clear**	**Clear**	**Clear**
%OXYGEN	20.8	20.3	20.9
VOC-NMHC-Propane (lbs/hr)	0.00000000	0.00000000	0.00000000

FID Response Factor Multiplier for Propane is 0.623

TABLE 2
OTTILO LANDFILL
CARBON EFFICIENCY
PASSIVE VENT SAMPLING AND ANALYSIS - FIELD MEASUREMENTS
DATE 10/29/21

	CARBON EFFLUENT			CARBON INFLUENT			
VENT #	**CD-1**	**CD-2**	**CD-3**	**PV-1**	**PV-2**	**PV-3**	
Opacity	Clear	Clear	Clear	Clear	Clear	Clear	
Stack Radius (in)	0.25	0.25	0.25	2.6875	2.6875	2.6875	
%CH4	0.0	0.0	0.0	0.0	0.0	0.0	
%CO2	1.9	2.2	1.6	2.3	2.1	2.8	
%O2	20.8	20.3	20.9	20.9	20.5	19.0	
%N2	77.3	77.5	77.5	76.8	77.4	78.2	
VOC-FID	0.00	0.00	0.00	159.00	1.30	7450.00	
VOC-FID w/ Charcoal	0.00	0.00	0.00	0.00	0.00	6750.00	
VOC-FID-NMHC as CH4	0.00	0.00	0.00	159.00	1.30	700.00	
VOC-FID-NMHC-as Propane (ppm)	0.00	0.00	0.00	98.58	0.81	434.00	Response Factor Multiplier for Propane is 0.623
VOC-FID-TTVO-Benzene (ppm)	0.00	0.00	0.00	55.01	0.45	242.20	Response Factor Multiplier for Benzene is 0.346
VOC-PID (11.7 ev)	0.10	0.00	0.00	0.90	0.00	0.00	
VOC-PID-NMHC-Propane (ppm)	0.18	0.00	0.00	1.62	0.00	0.00	Response Factor Multiplier for Propane is 1.8
VOC-PID-as Benzene (ppm)	0.06	0.00	0.00	0.54	0.00	0.00	ResponseFactor Multiplier for Benzene is 0.6
STACK TEMP (F)	63.8	72.0	72.0	64.7	70.4	70.4	
Barometeric Pressure (in-Hg)	29.62	29.62	29.62	29.62	29.62	29.87	
Stack Pressure (inch. water)	0.009	0.000	0.000	0.009	0.000	0.000	
TOTAL STACK PRESSURE	29.62	29.62	29.62	29.62	29.62	29.87	temp conversion F to C
STACK VEL (ft/min)	44.0	50.0	2.0	1.0	2.0	2.0	
ACFM	0.0600	0.0682	0.0027	0.0014	0.0027	0.0027	F= 65 C= **18.3333**
SCFM	0.0598958	0.0670128	0.0026805	0.0013589	0.0026886	0.0027113	
VOC-NMHC-Propane (lbs/hr)	0.00000000	0.00000000	0.00000000	0.00000092	0.00000001	0.00000805	
METHANE (lbs/hr)	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	
CO2 (lbs/hr)	0.00776518	0.01005963	0.00029264	0.00021327	0.00038525	0.00051801	

	Landfill lbs/hr	**Landfill lbs/hr Limit**	**Landfill tons/yr**	**Landfill tons/yr Limit**
TOTAL SITE EMISSION OF VOC AS PROPANE =	**0.000000**	0.05	**0**	0.219
TOTAL SITE EMISSION OF METHANE =	**0.000000**	0.744091	**0.000000000**	3.25911858
TOTAL SITE EMISSION OF CARBON DIOXIDE =	**0.018117**	0.558068	**0.079354463**	2.44433784
TOTAL SITE EMISSIONS; ACFM=	**0.1310**	240 ACFM		
TOTAL SITE EMISSIONS; SCFM=	**0.1296**			

CARBON EFFICIENCY	**CD-1**	**CD-2**	**CD-3**	
INF-VOC-NMHC-P	98.58	0.81	434.00	
EFF-VOC-NMHC-P	0.00	0.00	0.00	
% VOC REMOVAL	**100.0%**	**100.0%**	**100.0%**	**Carbon**
	<25PPM			**Efficiency Criteria 95%**

TABLE 4
V. OTILLIO LANDFILL
SOIL GAS MEASUREMENT DATA ANALYSIS WORKSHEET
DATE:10/29/21

	PROBE DEPTH	%CH4	% CO2	%O2	H2S (ppm)	CO (ppm)	PID* (ppm)	Probe Pressure (IN.H20)
GV-1S	6.4	0.0	4.8	15.6	0	0	4.7	0.000
GV-1	10.1	0.0	13.2	8.2	0	0	3.7	0.000
GV-2S	7.4	45.3	1.4	0.0	1	4	36.4	0.031
GV-2	12.0	45.1	1.6	0.0	2	5	12.1	0.023
GV-3S	7.2	27.3	4.0	0.0	1	5	232.3	0.020
GV-3	11.3	25.7	2.2	0.0	2	5	89.9	0.000
GV-4S	5.9	4.8	5.5	0.0	9	2	71.7	0.000
GV-4	9.6	0.0	3.2	0.0	1	1	36.4	0.000
GV-5S	6.9	0.0	7.5	8.7	1	1	16.5	0.000
GV-5	10.1	0.0	2.8	16.3	1	1	11.7	0.000
GV-6S	4.1	0.0	7.7	14.5	1	0	0.0	0.000
GV-6	8.0	0.0	2.5	18.5	1	0	0.0	0.000

BAR PRESS
29.90" Hg

* A dilutor was used for the reading due to interference from methane and water vapor, a 10.6 eV lamp was used.

OTTILO LAND FILL
SOIL GAS PROBE RESULTS
COMPARISONS

	DEPTH	7/15/04	8/12/04	11/17/06	2/22/07	4/19/07	5/1/08	7/10/08	10/10/08	1/22/09	4/16/09	7/23/09	10/14/09	1/22/10	4/13/10	7/27/10	10/13/10	3/5/11	5/25/11	9/21/11	12/12/11	3/8/12	5/17/12	9/19/12	12/11/12	3/11/13	4/17/13	9/18/13	12/4/13	3/20/17	6/16/14	9/23/14	12/15/14	3/18/15	6/10/15	9/24/15	12/14/15	8/29/16	6/12/17	11/20/18	10/10/19	4/20/21	10/29/21	
%CH4																																										**%CH4**
GV-1S	6.4	ND	0	0.3	0	0	0	0	0	ICED	0	1.3	0	0	0	0.2	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	4.7	0	0	0	0	0.0	0.0	GV-1S
GV-1D	10.1	ND	0	0.2	0	0	0	0	0	ICED	0	0.7	0	0	0	0.1	0	0	3.9	0	0	0	0	0	2.2	0	0	0	0	0	0.1	0	0	0	0.4	0	0	0	0	0	0	0.0	0.0	GV-1D
GV-2S	7.35	27.7	0.1	6.6	11.4	0	0	0	0.3	ICED	0	0	0	4.7	0	0.2	0	0	0	0	0	1	0	0	0	21	0	0	0	3.3	0	0	0	1.2	16	24.1	17.9	20.7	21.4	35.5	35.1	35.8	45.3	GV-2S
GV-2D	12	27.6	0.1	0.1	8.6	0	9.1	0	0.1	ICED	0	0	0.2	1.1	0	0.2	0	0	0.7	0	1.6	0	0	0	0	5.6	0	0	0	3.7	17.1	0	0	0	12.5	23.7	17.7	0.1	0.3	29.7	35.4	27.4	45.1	GV-2D
GV-3S	7.2	5	2.6	16.4	15.8	22.2	5	19.3	21.8	13.2	16.2	18.7	24.3	15.9	19	29	23.5	22.1	22.7	17.3	21.3	21.5	25.2	30.5	18.5	12.5	13.2	25.7	27.1	17.5	0	23.7	19.5	18.6	18.7	25.2	22.5	24.7	23.8	24.3	32.5	21.0	27.3	GV-3S
GV-3D	11.3	33.7	31.2	33.3	14.5	15.9	12.9	0	2.5	6.1	16	0.1	0	0	0	0.1	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0.4	32.5	19.2	25.7	GV-3D
GV-4S	5.9	3.5	2	5.2	0.3	10.6	0	3.2	2	0	0.4	0.9	0.4	0.5	0	0	2.1	1.9	0.2	0	0	1.3	1	2.9	3.1	0	0.1	0	0	0	1.2	0	0.4	2.3	1.9	2.5	1	0.6	3	1.2	3.8	4.1	0.7	4.8	GV-4S
GV-4D	9.6	8.9	5.2	0.1	0	0	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	GV-4D
GV-5S	6.9	ND	0	0.1	0	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0.1	0	0	0	0	0	0	0	0	0	0.0	0.0	GV-5S
GV-5D	10.1	ND	0	0.1	0	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0.1	0	0	0	0	0	0	0	0	0	0.0	0.0	GV-5D
GV-6S	4.1	ND	0	2.2	0	0	0	5.6	0	0	0	2.3	0	0	0	0	0	0	4.3	0	0	4.5	4.9	0	0	0	2	0	0	0.1	2.1	0	0	3.3	3.8	0	0	0	0.1	0.4	0	0	0	0.0	0.0	GV-6S
GV-6D	8	ND	0	0.1	0.1	0.1	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	GV-6D
%CO2																																											**%CO2**
GV-1S	6.4	10.9	13.4	10.2	3.2	1.4	5.2	0.1	1.2	ICED	1.3	10.6	4	1.2	1.2	0.2	3.6	0.7	2.2	9.6	4	6.8	4.2	0.7	2.2	2.3	2.5	7.9	4.4	1.8	3.7	5.4	1.4	0.2	13.3	5.1	7.4	4.7	4.9	1.6	1.9	3.1	4.8	GV-1S
GV-1D	10.1	12.9	15.1	11.9	0.1	3.4	7.3	0	14.2	ICED	6.2	11.3	9.4	3.9	5.5	11.1	13.7	6.3	9.6	14.9	10.1	6.3	11.6	17.5	10.1	4.1	3.9	12.2	9.7	4.6	9.1	14.2	7.4	4.4	8.7	136	12.7	14.6	15.2	11	12.5	4.9	13.2	GV-1D
GV-2S	7.35	5.1	6.9	2	5.7	0.5	2.9	1.7	4	ICED	3.4	1.9	2.9	3.7	1.2	2	3.8	0.5	2.1	1	1	3	2.6	1.7	4.1	0.8	1.2	2.4	6.2	0.9	1.5	22	2	0.6	2	2.1	3	2	2.4	1.6	1.4	0.8	1.4	GV-2S
GV-2D	12	5.3	7.3	4.4	5.2	3.4	2.8	0.8	4.5	ICED	2.2	1	2.1	2.7	1.9	0.1	2.6	0.7	1.6	1.3	1.2	1.6	0.9	1.3	3.1	1.2	1	1.5	4.2	1	1.7	0.7	0.6	0.5	1.7	2.2	3	0.1	0.2	1.7	1.4	1.2	1.6	GV-2D
GV-3S	7.2	nd	0	0.1	5.4	3.9	1.1	2.7	6.7	4.9	4.6	3.6	5.5	4.7	2.8	3.9	5.4	3.3	3.4	3.8	5	3.9	3.6	5.1	6	4.2	3.8	5.3	6.3	4.1	3.8	5.2	3.2	1.4	1.7	3.8	4.6	4	4.4	3.1	2.9	1.5	4.0	GV-3S
GV-3D	11.3	9.7	10.4	7.1	0.1	0.1	0.1	1.3	6.6	0.3	1	0	1.9	1.3	1.1	2.4	15.3	0.4	1.9	1.6	1	1.6	2.7	2.2	1.7	0.8	1.3	1.1	1.4	0.4	3	2	0.7	0.2	1.9	2.2	1.8	3	4	2.3	4.4	0.9	2.2	GV-3D
GV-4S	5.9	4.2	1.2	5.9	8.6	4	7.7	6.2	9	9.2	8.4	8.5	12.2	8.6	7.3	5.9	9	5.7	6.8	0.5	7.3	7.2	5.5	8.3	10.9	6.1	7.8	9.8	13	3	6.3	10.1	5.2	3.9	5.9	9.2	10.3	8.3	9.4	4.7	7.6	5.6	5.5	GV-4S
GV-4D	9.6	10.5	10	0.1	2.2	0	0.9	0.6	1.2	0.8	1.9	0.3	1.1	1.1	0.9	5.6	1.5	0.2	0.7	0.1	0.4	0.8	1.8	4.5	4.7	0.5	1.4	5	5.6	0.6	1.4	3.3	0.8	0.2	1.9	4.5	4.4	5.2	4.7	2	7.8	1.0	3.2	GV-4D
GV-5S	6.9	1.5	1.4	1	0.4	0.2	0.6	0.1	12.5	ICED	9.5	0.8	8	3.2	1.3	11	13.6	2.5	8.3	6.2	2.4	5.8	6.3	14.4	13	2.4	4.5	13.2	12.1	1.4	4.4	10.8	4.2	2.5	5.8	10.3	11.2	12.8	12.2	4.7	15.5	5.5	7.5	GV-5S
GV-5D	10.1	0.9	0.6	1.4	0.7	0.3	1.1	2.1	4.3	ICED	1.4	2	2.5	1.1	0.8	2.8	4.8	1	1.7	2.4	1.6	1.2	1.4	4.2	2.2	0.8	0.9	3.8	3.3	2	2.2	2.5	1.8	0.9	1.8	3	3.2	1.1	1.4	2.9	47	1.4	2.8	GV-5D
GV-6S	4.1	5.9	4.3	17.3	15.7	6.6	14.9	16.4	3.8	3.9	10.8	13.5	12.6	7.2	14.2	16	15.5	10.4	15.1	13	7.3	17.9	15.4	18.5	11.9	8.3	14.8	9.5	6.6	11.5	14.2	13.1	12.4	10.9	14.1	0.2	6.3	16	16.6	8.3	8.1	13.1	7.7	GV-6S
GV-6D	8	16.5	15	3.9	8.4	3	5.5	8.1	17.8	1.8	5.4	4.3	5.6	2.8	3.6	6.8	5.4	2.7	3.2	2.7	2.5	4.5	4.6	4.8	1.8	2.4	3.4	3.5	2.3	1.5	3.3	0.9	1.2	1.5	2	1.9	1.2	3.1	3.4	1.3	1.5	2.4	2.5	GV-6D
%O2																																											**%O2**
GV-1S	6.4	5.3	1.7	3	14.8	19	12.2	20.8	17.4	ICED	16.7	5	15.3	17.8	17.6	16.5	14.6	20.5	13	4.6	15.6	5.6	11.5	14.1	17.9	15.5	15	11.1	13.9	17.4	12.9	13.4	18.6	21.3	0	13.8	7.7	13.8	3	X	19.2	14.0	15.6	GV-1S
GV-1D	10.1	4.8	1.2	1	15.1	17.2	8.4	20.8	3.3	ICED	13.5	5.8	12.9	15.9	14.3	9.7	5.1	10.8	1.2	4	12.8	6.9	2.4	0.2	7.7	15	15.3	9.1	9.6	13.8	4.6	6.3	14.1	14.5	3.2	7.3	1.8	2.7	2.5	X	9.4	12.1	8.2	GV-1D
GV-2S	7.35	ND	15	0.5	0	1.2	15.1	19.8	13.8	ICED	14.8	15.3	13.5	0.1	17.1	14.7	13.4	14.1	11.4	17.6	16	4	14.4	15	14.3	0.7	17.4	11.3	12	0.5	11.7	15.3	16.1	6	0	0	0	0	0	X	0	0.2	0.0	GV-2S
GV-2D	12	ND	12	11.6	0.2	13	4.8	20.8	15.2	ICED	17.2	18.6	15	0.7	18.6	16.5	16.7	20.5	3.1	18	5	17.5	15.5	16.2	15.7	6.2	14.3	15.8	14.7	0.9	14	17.6	17.2	20.1	0	0	0	19	17.2	X	0	0.1	0.0	GV-2D
GV-3S	7.2	6.5	9.3	6.8	0	NM	7.8	6.1	0	0.1	0.4	3.8	0.2	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	16.9	0	0	0	0.4	0.3	0.2	0	0	0	0	0	0	X	0	0.1	0.0	GV-3S
GV-3D	11.3	ND	0.1	0.5	5.6	0.7	3.3	14.8	0	15.8	0.3	20.3	15.2	14.2	14.7	13.9	0	20.5	15.3	17.7	18.1	17	15.5	15.9	18.9	18.8	0	17.8	17.7	19.3	14.6	16.4	19.6	20.5	16.9	15.7	18.6	15.4	16.2	X	0	0.1	0.0	GV-3D
GV-4S	5.9	ND	0.2	0.2	0	NM	ND	1.3	0.1	1.5	0.7	0.7	0.5	0.3	1.1	3.4	0.1	.	0	20.7	0	0	0.7	1	1.7	0.5	6.7	0.4	0.4	17.9	1	0.3	0.8	0.1	0	0	0	0	0	X	0	0.0	0.0	GV-4S
GV-4D	9.6	ND	0	20.7	3	20.6	6.5	16.9	0.9	7.8	5.9	17.1	14.8	6.4	11.9	0.4	15.6	20.9	2.3	20.8	19.5	11.7	5.9	10.9	12.7	6.8	0.9	8.6	10.3	9.7	6.2	13.2	6	19.1	9.5	10.9	11.8	11.5	11.7	X	0.4	17.6	0.0	GV-4D
GV-5S	6.9	16.3	15.5	19.4	20.1	18.9	19.5	20.8	6.4	ICED	8.6	19.1	17.6	13.9	17.1	4.7	2.5	17.3	8.1	10.7	16.3	12.8	12.3	6.5	9.1	15.7	18.7	7.1	8.5	18.1	6.9	9.6	14.7	16	10.7	9.2	7.6	7	6.4	X	5.4	13.0	8.7	GV-5S
GV-5D	10.1	16.7	16.7	17.8	19.5	18.7	18.2	18.8	14.7	ICED	17.2	17.5	16	19.1	19.2	14.7	12.1	19.4	15.4	16.5	17.7	18.7	16.8	15.1	18.6	18.4	13.5	14.7	16	18	14.3	15.8	18	19.3	15.7	15.6	16.7	17.9	17.2	X	16.1	19.3	16.3	GV-5D
GV-6S	4.1	11.4	14.8	20.3	3.8	13.7	1.8	0.3	17.5	19.4	13.7	2.6	8.8	16.2	1.4	0	4.6	14.1	0	4.4	16.8	0	0	0.4	6.4	14.6	17.3	13.5	17.8	7	0.1	6.2	6.7	4.2	0	19.7	13.8	0	0	X	15.1	1.9	14.5	GV-6S
GV-6D	8	0.9	4.1	16.3	10.2	15.1	12.2	8	0.3	20	15	14.8	14.1	17.8	16.1	11.3	14.3	18.3	14.9	17.9	17.7	15.4	14.7	15.8	19.4	17.6	0.3	16.7	19.3	18.6	13	17.8	19.3	16.9	13	17.7	20.2	16.2	16	X	20	18.6	18.5	GV-6D
H2S (ppm)																																											**H2S (ppm)**
GV-1S	6.4	0	0	0	NR	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	GV-1S
GV-1D	10.1	0	0	1.2	NR	0	1	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	GV-1D
GV-2S	7.35	10	0	0	NR	0	0	0	0	ICED	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	1	GV-2S
GV-2D	12	3	0	0.4	NR	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	2	GV-2D
GV-3S	7.2	0	0	6.4	NR	1	17	0	34	34	14	12	40	21	1	12	12	1	1	2	3	0	9	9	9	7	0	6	0	0	0	8	10	1	10	22	12	10	11	9	0	0	1	GV-3S
GV-3D	11.3	28	48	17.2	NR	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2.2	0	2	GV-3D
GV-4S	5.9	0	0	7.2	NR	0	0	0	1	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	9	GV-4S
GV-4D	9.6	4	4	0.6	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	GV-4D
GV-5S	6.9	8	0	0	NR	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	GV-5S
GV-5D	10.1	0	0	0	NR	0	0	0	0	ICED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	GV-5D
GV-6S	4.1	0	0	0	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	GV-6S
GV-6D	8	0	0	0.4	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	GV-6D
PID (ppm)																																											**PID (ppm)**
GV-1S	6.4	ND	0	48	0	5.6	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	23	0.9	0	GV-1S
GV-1D	10.1	ND	0	51	1	3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	42	0.8	0	GV-1D
GV-2S	7.35	ND	0.2	48	8	11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	175	0.9	4	GV-2S
GV-2D	12	ND	0	89	24	2.8	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	210	0.8	5	GV-2D
GV-3S	7.2	ND	0	103	2	8.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	230	13.9	5	GV-3S
GV-3D	11.3	ND	39.3	63	2	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	161	1.3	5	GV-3D
GV-4S	5.9	ND	0	76	10	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	60	10.4	2	GV-4S
GV-4D	9.6	ND	2.4	82	0	1.5	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	40	3.1	1	GV-4D
GV-5S	6.9	ND	0	36	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	30	2.1	1	GV-5S
GV-5D	10.1	ND	0	36	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	29	1.4	1	GV-5D
GV-6S	4.1	ND	0	43	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	27	2.7	0	GV-6S
GV-6D	8	ND	0	36	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	23	1.1	0	GV-6D
BARO PRESS				29.68	29.69	29.84	30.14	29.83	30.12	30.01	30.29	30.04	30.25	29.91	30.46	30.09	30.07	30.05	29.93	30.23	30.16	30.57	30.05	29.99	29.91	30.22	30.22	30.34	30.09	29.79	30.16	30.33	30.12	30.10	29.90	30.30	29.90	30.10	30.00	29.83	30.15	29.90	29.87	BARO PRESS

TABLE I
OTILLIO LANDFILL
DEPTHS AND VOLUMES OF SOIL GAS PROBES

WELL #	PROBE DEPTH (FT)	1-PURGE VOLUME (L)	3-PURGE VOLUME (L)	
GV-1S	6.4	0.25	0.74	6.4
GV-1	10.1	0.39	1.17	10.1
GV-2S	7.35	0.28	0.85	7.4
GV-2	12	0.46	1.39	12.0
GV-3S	7.2	0.28	0.83	7.2
GV-3	11.3	0.44	1.31	11.3
GV-4S	5.9	0.23	0.68	5.9
GV-4	9.6	0.37	1.11	9.6
GV-5S	6.9	0.27	0.80	6.9
GV-5	10.1	0.39	1.17	10.1
GV-6S	4.1	0.16	0.47	4.1
GV-6	8	0.31	0.93	8.0