Commonwealth of Virginia

Blalock, Susan <susan.blalock@deq.virginia.gov>

FW: Semi-Monthly Daily LFG Well Temperature and Status Update

1 message

Crystal Bazyk <crystal.bazyk@deq.virginia.gov> Mon, May 16, 2022 at 7:43 AM
To: Angela Sells <angela.p.sells@deq.virginia.gov>
Cc: Susan Blalock <susan.blalock@deq.virginia.gov>

From: King, Brandon <BKing@scsengineers.com>
Sent: Friday, May 13, 2022 6:26 PM
To: crystal.bazyk@deq.virginia.gov; hall.kristen@epa.gov; jeff.hurst@deq.virginia.gov; willard.erinm@epa.gov; stacy.bowers@deq.virginia.gov; David Cochran <dcochran@bristolva.org>; mmaine@bristolva.org; Randall Eads <CityManager@bristolva.org>
Cc: Lock, Tom <TLock@scsengineers.com>; Dick, Bob <BDick@scsengineers.com>; Nachman, Lucas <LNachman@scsengineers.com>
Subject: RE: Semi-Monthly Daily LFG Well Temperature and Status Update

Ms. Hall and Ms. Bazyk,

In accordance with EPA's letter, "Approval of Higher Operating Temperature Values of Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Facility" from August 2021, I am providing the May 13, 2022 status report on the existing wells, expansion of the gas collection system, and continuing operating and monitoring results, covering the period from May 1-13, 2022.

Let me know if you have any questions.

Thank you,

D. Brandon King

Project Manager

SCS Engineers

15521 Midlothian Turnpike

Suite 305

Midlothian, VA 23113

Office: (804) *378-7440*

Office Direct: (804) 486-1902

Mobile: (804) 840-7846

From: King, Brandon
Sent: Monday, May 2, 2022 2:02 PM
To: crystal.bazyk@deq.virginia.gov; hall.kristen@epa.gov; jeff.hurst@deq.virginia.gov; willard.erinm@epa.gov; stacy.bowers@deq.virginia.gov; David Cochran <dcochran@bristolva.org>; mmaine@bristolva.org; Randall Eads <CityManager@bristolva.org>
Cc: Lock, Tom <TLock@scsengineers.com>; Dick, Bob <BDick@scsengineers.com>; Nachman, Lucas <LNachman@scsengineers.com>
Subject: Semi-Monthly Daily LFG Well Temperature and Status Update

Ms. Hall and Ms. Bazyk,

In accordance with EPA's letter, "Approval of Higher Operating Temperature Values of Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Facility" from August 2021, I am providing the May 1, 2022 status report on the existing wells, expansion of the gas collection system, and continuing operating and monitoring results, covering the period from April 16-30, 2022.

Let me know if you have any questions.

Thank you,

D. Brandon King

Project Manager

SCS Engineers

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Office: (804) 378-7440

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Semi-monthly Daily LFG Well Temperature Update_5-13-22.pdf
1245K

May 13, 2022

File No. 02218208.04

MEMORANDUM

TO: Kristin Hall, EPA Region III
Crystal Bayzk, VDEQ-SWRO

FROM: D. Brandon King, SCS Engineers
Robert E. Dick, SCS Engineers

SUBJECT: Semi-monthly Status Update – May 1st through May 13th, 2022
Bristol Integrated Waste Management Facility, Bristol, Virginia

In accordance with the Environmental Protection Agency (EPA) Region III letter, *Approval of Higher Operating Temperature Values for Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Management Facility*, dated 8/23/21, SCS is submitting this semi-monthly status update to satisfy the condition of compliance provision #2. This compliance provision report includes daily temperature readings of the existing and new wells installed. In addition, this report includes a summary of work accomplished during this reporting period of 5/1/22 through 5/13/22, pursuant of compliance provision #2.

DAILY TEMPERATURE READINGS

Exhibit 1. Daily Temperature Readings

	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri
Well ID	5/2	5/3	5/4	5/5	5/6	5/9	5/10	5/11	5/12	5/13
GW-31R	149	148	144	NM	148	148	150	149	149	150
GW-35	82	85	86	NM	82	72	75	80	90	85
GW-37	152	150	146	NM	149	152	149	152	150	150
GW-39	112	110	109	NM	112	111	96	104	112	118
GW-40	112	109	108	NM	105	118	92	90	92	89
GW-46	89	92	99	NM	95	80	86	82	82	80
GW-47	79	77	80	NM	76	60	100	101	109	110
GW-49	132	NM	NM	NM	NM	130	128	130	128	130
GW-52	NM	NM	NM	NM	NM	Foam	Foam	Foam	129	NM
GW-53	110	NM	NM	NM	NM	NM	NM	85	86	79
GW-54	129	NM	NM	NM	NM	132	129	130	132	130
GW-55	168	NM	NM	NM	NM	NM	NM	112	92	NM
GW-58	110	NM	NM	NM	NM	110	98	90	92	85

GW-59	109	NM	NM	NM	NM	98	105	108	106	130
GW-60	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
GW-61	138	NM	NM	NM	NM	110	126	128	126	125
GW-62	110	NM	NM	NM	NM	110	108	110	122	119
GW-64	132	NM	NM	NM	NM	140	139	138	139	140
GW-66	144	142	140	NM	141	NM	NM	NM	NM	92
GW-67	110	NM	NM	NM	NM	140	144	145	140	140
GW-68	NM	NM	NM	NM	NM	111	110	111	110	110

Note: All temperature data is reported in degrees Fahrenheit
Temperature HOV request letter sent to EPA dated 3/8/22 for temperature readings shown in red.
NM= No Measurements/ Not Monitored

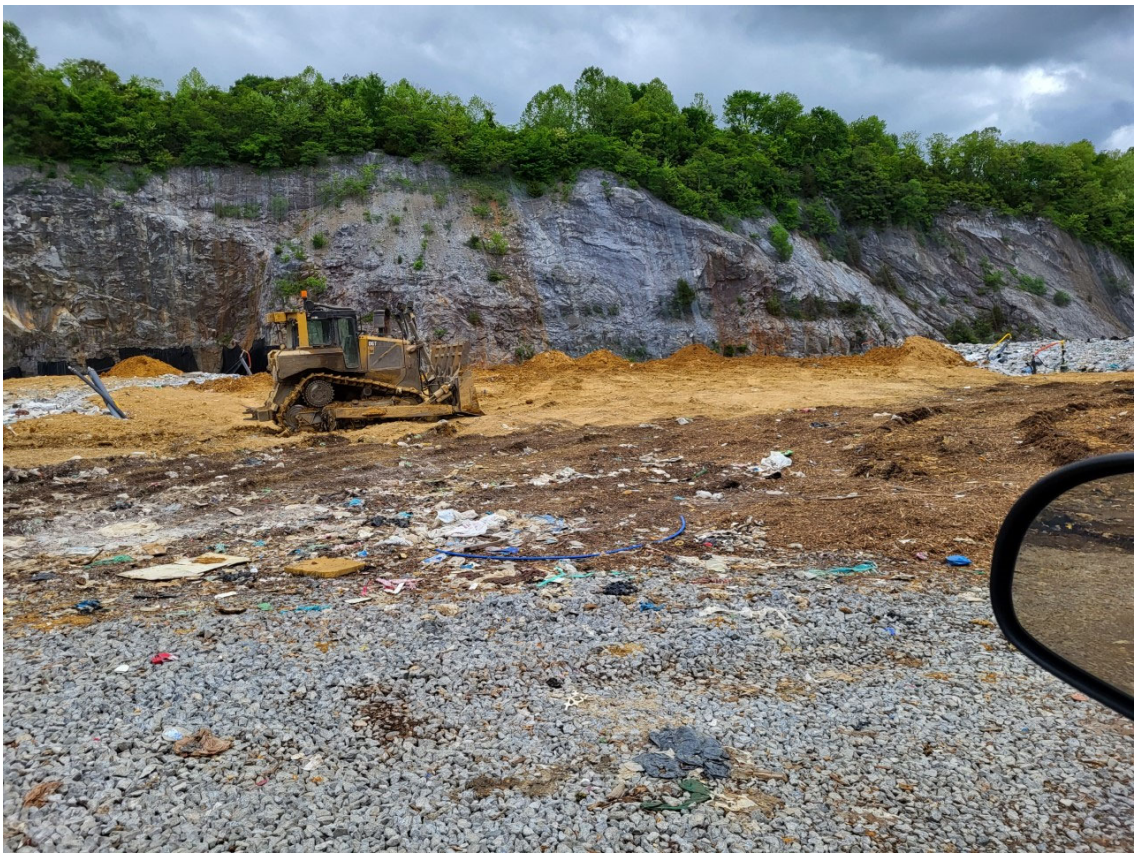
LFG ANALYTICAL DATA REVIEW

The City and SCS are still awaiting the EPA's evaluation of the Higher Operating Value for Temperature Request letter submitted to EPA on 3/8/22. In May 2022, exceedance temperatures persist in HOV requested wells GW-31R and GW-37 with SCS recording temperatures of 150F and 149F respectively on 5/4/22. This represents a decrease in temperature from the April readings. In addition, SCS recorded a temperature of 180F at Well GW-55 on 5/4/22. SCS recorded CO samples via 1.5L Summa Canisters at GW-31R, GW-37, and GW-55 on 5/4/22 and had the samples sent to Enthalpy Analytical for EPA Method CO ALT 145 laboratory analysis. The three samples were analyzed on 5/10/22 and the results showed CO concentrations below the minimal detection limit (MDL) of 90 parts per million (ppm) for GW-31R and GW-37. Well GW-55 recorded a CO concentration of 241 ppm. However, SCS conducted a retest of well GW-55 on 5/11/22 and recorded a temperature of 118F. Therefore additional monitoring was not required per Subpart AAAA as the temperature was below 145F. The laboratory analytical results for EPA Method CO ALT 145 from the report dated 5/13/22 are attached for reference.

NON-ROUTINE O&M

SCS Field Services (FS) O&M was on-site the week of 5/9/22 and removed the lateral LFG header piping, pneumatic airline, and dewatering forcemain piping to LFG vertical well GW-57 on 5/9/22 and GW-40, GW-41, GW-46, GW-53, GW-56, GW-66, and horizontal collector HC-1 on 5/11/22 to accommodate waste placement operations. SCS-FS raised GW-57 and GW-41. SCS-FS O&M reinstalled LFG, air, and forcemain piping to LFG well GW-57 on 5/10/22 and GW-40, GW-41, GW-46, GW-53, GW-56, GW-66, and horizontal collector HC-1 upon completion of waste placement operations by the City in these respective areas on 5/13/22.

City personnel have been hauling cover soil into Permit #588 Landfill and spreading over exposed areas of waste in non-active filling areas periodically in May. See reference photo below.



EVALUATION OF LFG SYSTEM

There should be several functional dedicated pneumatic dewatering pumps available on standby to be switched out in the event a well has a non-functioning pump. SCS-FS O&M recommends a dedicated pneumatic pump testing and cleaning station be set up on-site in order to confirm the operational status of dewatering pneumatic pumps at the Facility. SCS-FS O&M will be coordinating with the City for the procurement and installation set up of a pump testing and cleaning station. SCS-FS will provide the pump testing and cleaning station quote to the City by 5/16/22.

Furthermore, SCS Engineers advises the City to procure a QED AP4.5 Ultra High-Temperature pneumatic pump with dedicated high temperature tubing bundle to compare overall performance and time duration between pump maintenance (e.g. pump pulling and cleaning) to the One Pump by Pump One. Looking further ahead, it will be important for the City to have at least 4 or 5 additional dewatering pumps that are tested and confirmed to be operational to have on standby. SCS is investigating other pumps that may require less maintenance in these conditions.

Please contact SCS or City personnel if you have any questions or require additional information.

cc: Randall Eads, City of Bristol
David Cochran, City of Bristol
Michael Maine, City of Bristol
Erin Willard, EPA Region III
Jeff Hurst, VDEQ-SWRO
Stacy Bowers, VDEQ-SWRO
Tom Lock, SCS Field Services
Robert E. Dick, P.E., SCS Engineers

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 22E0429

Client Name:	SCS Field Services - Harrisburg, PA	Date Received:	May 6, 2022 10:08
	4330 Lewis Road, Suite 1	Date Issued:	May 13, 2022 15:06
	Harrisburg, PA 17111	Project Number:	07220028.00
Submitted To:	Scott Schoffner	Purchase Order:	
Client Site I.D.:	Bristol		

Enclosed are the results of analyses for samples received by the laboratory on 05/06/2022 10:08. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Mandy Mishra

Laboratory Director

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

TNI Accredited
VELAP ID 460021

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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
31R	22E0429-01	Air	05/04/2022 15:18	05/06/2022 10:08
37	22E0429-02	Air	05/04/2022 15:12	05/06/2022 10:08
55	22E0429-03	Air	05/04/2022 15:32	05/06/2022 10:08

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Submitted To:	Scott Schoffner	Project Number:	07220028.00
Client Site I.D.:	Bristol	Purchase Order:	

ANALYTICAL RESULTS

Project Location:

Field Sample #: 31R

Sample ID: 22E0429-01

Sample Matrix: Air

Sampled: 5/4/2022 15:18

Sample Type: LG

Sample Description/Location:

Sub Description/Location:

Canister ID: 063-00223: 10094

Canister Size: 1.4

Initial Vacuum(in Hg): 30

Final Vacuum(in Hg):

Receipt Vacuum(in Hg):

Flow Controller Type: Passive

Flow Controller ID: LFCD1006

Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis
ALT-145

Analyte	ppmv Result	MDL	LOQ	Flag/Qual	Dilution	PF	Date/Time Analyzed	Analyst
Carbon Monoxide, as received	ND	90.0	90.0		9	1	5/10/22 9:05	DFH

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ANALYTICAL RESULTS

Project Location:

Field Sample #: 37

Sample ID: 22E0429-02

Sample Matrix: Air

Sampled: 5/4/2022 15:12

Sample Type: LG

Sample Description/Location:

Sub Description/Location:

Canister ID: 063-00212: 10220

Canister Size: 1.4

Initial Vacuum(in Hg): 30

Final Vacuum(in Hg):

Receipt Vacuum(in Hg):

Flow Controller Type: Passive

Flow Controller ID: LFCD1006

Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis
ALT-145

Analyte	ppmv Result	MDL	LOQ	Flag/Qual	Dilution	PF	Date/Time Analyzed	Analyst
Carbon Monoxide, as received	ND	90.0	90.0		9	1	5/10/22 10:09	DFH

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Client Site I.D.:	Bristol	Purchase Order:	

ANALYTICAL RESULTS

Project Location:

Field Sample #: 55

Sample ID: 22E0429-03

Sample Matrix: Air

Sampled: 5/4/2022 15:32

Sample Type: LG

Sample Description/Location:

Sub Description/Location:

Canister ID: 063-00195: 11309

Canister Size: 1.4

Initial Vacuum(in Hg): 30

Final Vacuum(in Hg):

Receipt Vacuum(in Hg):

Flow Controller Type: Passive

Flow Controller ID: LFCD1006

Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis
ALT-145

Analyte	ppmv Result	MDL	LOQ	Flag/Qual	Dilution	PF	Date/Time Analyzed	Analyst
Carbon Monoxide, as received	241	118	118		11.8	1	5/10/22 11:13	DFH

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Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis			**Preparation Method:**	**No Prep VOC GC Air**	
22E0429-01	1.00 mL / 1.00 mL	ALT-145	BFE0363	SFE0326	AG00026
22E0429-02	1.00 mL / 1.00 mL	ALT-145	BFE0363	SFE0326	AG00026
22E0429-03	1.00 mL / 1.00 mL	ALT-145	BFE0363	SFE0326	AG00026

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Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BFE0363 - No Prep VOC GC Air										
Blank (BFE0363-BLK1)					Prepared & Analyzed: 05/10/2022					
Carbon Monoxide	<	10.0	ppmv							
LCS (BFE0363-BS1)					Prepared & Analyzed: 05/10/2022					
Methane	4560	500	ppmv	5000		91.2	0-200			
Carbon dioxide	4440	500	ppmv	5000		88.8	0-200			
Oxygen (O2)	4990	500	ppmv	5000		99.9	0-200			
Nitrogen (N2)	5510	500	ppmv	5000		110	0-200			
Hydrogen (H2)	5250	200	ppmv	5100		103	0-200			
Carbon Monoxide	4680	10	ppmv	5000		93.7	0-200			
Duplicate (BFE0363-DUP1)			**Source: 22E0429-01**		Prepared & Analyzed: 05/10/2022					
Methane	236000	4500	ppmv		235000			0.225	25	
Carbon dioxide	374000	4500	ppmv		373000			0.0873	25	
Oxygen (O2)	7760	4500	ppmv		7730			0.503	25	
Nitrogen (N2)	257000	4500	ppmv		256000			0.224	25	
Hydrogen (H2)	6670	1800	ppmv		6610			0.847	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	
Duplicate (BFE0363-DUP2)			**Source: 22E0429-02**		Prepared & Analyzed: 05/10/2022					
Methane	115000	4500	ppmv		115000			0.159	25	
Carbon dioxide	173000	4500	ppmv		172000			0.519	25	
Oxygen (O2)	67200	4500	ppmv		67100			0.0382	25	
Hydrogen (H2)	3120	1800	ppmv		3050			2.37	25	
Nitrogen (N2)	502000	4500	ppmv		502000			0.00306	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	
Duplicate (BFE0363-DUP3)			**Source: 22E0429-03**		Prepared & Analyzed: 05/10/2022					
Carbon Monoxide	287	118	ppmv		241			17.2	25	

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Submitted To:	Scott Schoffner	Project Number:	07220028.00
Client Site I.D.:	Bristol	Purchase Order:	

Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BFE0363 - No Prep VOC GC Air										
Duplicate (BFE0363-DUP4)				**Source: 22E0445-01**	Prepared & Analyzed: 05/10/2022					
Methane	453000	4500	ppmv		452000			0.192	25	
Carbon dioxide	411000	4500	ppmv		411000			0.0374	25	
Oxygen (O2)	<	4500	ppmv		<4500			NA	25	
Nitrogen (N2)	6030	4500	ppmv		6060			0.445	25	
Hydrogen (H2)	51300	1800	ppmv		51500			0.378	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	
Duplicate (BFE0363-DUP5)				**Source: 22E0445-02**	Prepared & Analyzed: 05/10/2022					
Methane	327000	4500	ppmv		327000			0.0328	25	
Carbon dioxide	435000	4500	ppmv		415000			4.70	25	
Oxygen (O2)	<	4500	ppmv		<4500			NA	25	
Nitrogen (N2)	<	4500	ppmv		<4500			NA	25	
Hydrogen (H2)	143000	1800	ppmv		143000			0.0186	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	
Duplicate (BFE0363-DUP6)				**Source: 22E0445-03**	Prepared & Analyzed: 05/10/2022					
Methane	317000	4500	ppmv		313000			1.20	25	
Carbon dioxide	355000	4500	ppmv		380000			6.84	25	
Oxygen (O2)	34100	4500	ppmv		32900			3.55	25	
Hydrogen (H2)	73700	1800	ppmv		76500			3.79	25	
Nitrogen (N2)	131000	4500	ppmv		127000			2.93	25	
Carbon Monoxide	<	90.0	ppmv		94.3			NA	25	
Duplicate (BFE0363-DUP7)				**Source: 22E0447-01**	Prepared & Analyzed: 05/10/2022					
Methane	314000	4500	ppmv		314000			0.171	25	
Carbon dioxide	176000	4500	ppmv		198000			11.5	25	
Oxygen (O2)	87200	4500	ppmv		87100			0.147	25	
Hydrogen (H2)	<	1800	ppmv		<1800			NA	25	
Nitrogen (N2)	315000	4500	ppmv		315000			0.132	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	

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Client Site I.D.:	Bristol	Purchase Order:	

Volatile Organic Compounds by GC/TCD - Unadjusted, as received basis - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BFE0363 - No Prep VOC GC Air										
Duplicate (BFE0363-DUP8)				**Source: 22E0502-01**	Prepared & Analyzed: 05/10/2022					
Methane	350000	4500	ppmv		351000			0.0576	25	
Carbon dioxide	400000	4500	ppmv		382000			4.60	25	
Oxygen (O2)	<	4500	ppmv		<4500			NA	25	
Hydrogen (H2)	111000	1800	ppmv		112000			0.410	25	
Nitrogen (N2)	43000	4500	ppmv		43000			0.0741	25	
Carbon Monoxide	111	90.0	ppmv		117			5.06	25	
Duplicate (BFE0363-DUP9)				**Source: 22E0503-01**	Prepared & Analyzed: 05/10/2022					
Methane	369000	4500	ppmv		370000			0.0750	25	
Carbon dioxide	309000	4500	ppmv		309000			0.265	25	
Oxygen (O2)	<	4500	ppmv		<4500			NA	25	
Nitrogen (N2)	137000	4500	ppmv		140000			2.41	25	
Hydrogen (H2)	84000	1800	ppmv		83600			0.497	25	
Carbon Monoxide	<	90.0	ppmv		<90.0			NA	25	
Duplicate (BFE0363-DUPA)				**Source: 22E0503-02**	Prepared & Analyzed: 05/10/2022					
Methane	369000	4500	ppmv		369000			0.0483	25	
Carbon dioxide	403000	4500	ppmv		404000			0.323	25	
Oxygen (O2)	<	4500	ppmv		<4500			NA	25	
Nitrogen (N2)	21700	4500	ppmv		21700			0.0572	25	
Hydrogen (H2)	96600	1800	ppmv		96700			0.189	25	
Carbon Monoxide	128	90.0	ppmv		130			1.19	25	
Duplicate (BFE0363-DUPB)				**Source: 22E0503-03**	Prepared & Analyzed: 05/10/2022					
Methane	116000	4500	ppmv		117000			0.307	25	
Carbon dioxide	174000	4500	ppmv		174000			0.388	25	
Oxygen (O2)	61700	4500	ppmv		61900			0.257	25	
Hydrogen (H2)	49300	1800	ppmv		49700			0.837	25	
Nitrogen (N2)	341000	4500	ppmv		342000			0.484	25	
Carbon Monoxide	91.2	90.0	ppmv		93.7			2.73	25	

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Final Report

Laboratory Order ID 22E0429

Client Name:	SCS Field Services - Harrisburg, PA 4330 Lewis Road, Suite 1 Harrisburg, PA 17111	Date Received: Date Issued:	May 6, 2022 10:08 May 13, 2022 15:06
Submitted To:	Scott Schoffner	Project Number:	07220028.00
Client Site I.D.:	Bristol	Purchase Order:	

Certified Analytes included in this Report

Analyte	Certifications	Analyte	Certifications

Code	Description	Laboratory ID	Expires
MADEP	Massachusetts DEP	M-VA913	06/30/2022
MdDOE	Maryland DE Drinking Water	341	12/31/2022
NC	North Carolina DENR	495	07/31/2022
NCDEQ	North Carolina DEQ	495	12/31/2022
NCDOH	North Carolina Department of Health	51714	07/31/2022
NJDEP	NELAP-New Jersey DEP	VA015	06/30/2022
NYDOH	New York DOH Drinking Water	12096	04/01/2023
PADEP	NELAP-Pennsylvania Certificate #007	68-03503	10/31/2022
VELAP	NELAP-Virginia Certificate #11821	460021	06/14/2022
WVDEP	West Virginia DEP	350	11/30/2022

Qualifiers and Definitions

RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
PF	Preparation Factor
MDL	Method Detection Limit
LOQ	Limit of Quantitation
ppbv	parts per billion by volume
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

All EPA method 3C results are reported as normalized values when the sum total of all evaluated constituents is outside ± 10% of the absolute.

ENTHALPY ANALYTICAL
formerly Air, Water & Soil Laboratories

AIR ANALYSIS
CHAIN OF CUSTODY

Equipment due 4/29/22

COMPANY NAME: SCS Field Services - Harrisburg	INVOICE TO: **Same**	PROJECT NAME/Quote #: **Bristol**
CONTACT:	INVOICE CONTACT:	SITE NAME: Bristol
ADDRESS:	INVOICE ADDRESS:	PROJECT NUMBER: 07220028.00
PHONE #:	INVOICE PHONE #:	P.O. #:
FAX #:	EMAIL:	Pretreatment Program:
Is sample for compliance reporting? (YES) NO	**Regulatory State:** VA	Is sample from a chlorinated supply? YES (NO)
SAMPLER NAME (PRINT): Ryan DeHart	SAMPLER SIGNATURE:	PWS I.D. #:
		Turn Around Time: Circle: 10 (5 Days) or __ Day

Matrix Codes: AA=Indoor/Ambient Air SG=Soil Gas LV=Landfill/Vent Gas OT=Other LV

	CLIENT SAMPLE I.D.	Regulator Info: Flow Controller ID	Regulator Info: Cal Flow (mL/min)	Canister Information: Canister ID	Size (L)	Cleaning Batch ID	LAB Outgoing Canister Vacuum (in Hg)	LAB Receiving Canister Vacuum (in Hg)	Sampling Start Information: Start Date (Barometric Pres. (in Hg): 28.00")	Start Time (24hr clock)	Initial Canister Vacuum (in Hg)	Starting Sample Temp °F	Sampling Stop Information: Stop Date (Barometric Pres. (in Hg): 28.00")	Stop Time (24hr clock)	Final Canister Vacuum (in Hg)	Ending Sample Temp °F	Matrix (See Codes)	ANALYSIS: Alt 145 CO		
1)	31R	LFCS 006		10095	1.4	BC220330-03	30	9.6	05/04/22	15:16	29	150	5/4/22	15:18	8	150	LG	x		
2)	37	↓		10220	1.4	BC220330-03	30	8.6	05/04/22	15:10	~~30~~ 25	150	5/4/22	15:12	7	150	LG	x		
3)	55	↓		11309	1.4	BC220330-03	30	27.0	05/04/22	15:30	28	180	5/4/22	15:32	10	180	LG	x		
4)				12856	1.4	BC220330-03	30										LG	x		

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED: RD	DATE / TIME 05/04/22 6pm	RECEIVED: Fedex E mm 5/6/22	DATE / TIME ~~1003~~ MNM
RELINQUISHED: FedEx E	DATE / TIME	RECEIVED: mm 5/6/22	DATE / TIME 1008

QC Data Package
- Level I ☐
- Level II ☐
- Level III ☐
- Level IV ☐

LAB USE ONLY

310, 21.7, no ice, no seal

063-22D-0019

SCS Field Services **22E0429**
Bristol
Recd: 05/06/2022 **Due: 05/13/2022**

22E0429

v130325002

10).xls

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PHONE #:	INVOICE PHONE #:	P.O. #:
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SAMPLER NAME (PRINT):	SAMPLER SIGNATURE:	**Turn Around Time:** Circle: **10** **5 Days** **or** __ Day

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1)				20001	1.4	BC220323-02	30										LG	x		
2)				12666	1.4	BC220401-01	30										LG	x		
3)																				
4)																				

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
FedEx E		mm 5/6/22 1008	
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
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Recd: 05/06/2022 Due: 05/13/2022

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v130325002 air (10).xls

ENTHALPY ANALYTICAL

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

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Sample Conditions Checklist

Samples Received at:	**21.70°C**
How were samples received?	FedEx Express
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes