Clean Harbors Grassy Mountain, LLC.
P.O. Box 22750
Salt Lake City, UT 84122
Tel: 435.884.8900
Fax: 435.884.8990
www.cleanharbors.com

June 19, 2017

Mr. Scott T. Anderson, Director
Utah Division of Waste Management and Radiation Control
Department of Environmental Quality
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

RE: Request for Renewal of the Site-Specific Treatment Variance from Technology-Based Requirements for D009 (High Mercury-Inorganic Subcategory) Clean Harbors Aragonite Bag House Waste Clean Harbors Grassy Mountain, LLC., EPA ID No. UTD991301748

Dear Mr. Anderson:

In accordance with Utah Administrative Code R315-268-44, Clean Harbors Grassy Mountain, LLC. (CHGM) is requesting a Site-Specific Treatment Variance seeking authorization to stabilize one waste stream carrying the waste code D009 (High Mercury-Inorganic Subcategory). The waste identified in this request is characterized by the enclosed Waste Material Profile Sheet AGGM912669HIHGB. The treatment technology code for this subcategory is RMERC. The RMERC technology is described as: Retorting or roasting in a thermal processing unit capable of volatilizing mercury and condensing the volatilized mercury for recovery. The RMERC process generates secondary waste streams that require further stabilization.

This request is submitted in accordance with R315-268-44, which may allow a site-specific variance from an applicable treatment standard provided that the following condition is met:

> R315-268-44(h)(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible.

This request is submitted in accordance with the requirements of 40 CFR 260.20(b).

40 CFR 260.20(b)(1): This petition is being submitted by

Clean Harbors Grassy Mountain, LLC.
3 Miles East, 7 Miles North of Knolls
Exit 41, Off 1-80
Knolls, Utah 84029

40 CFR 260.20(b)(2): CHGM requests approval of a variance from the R315-268-40 Treatment Standards for Hazardous Wastes and R315-268-42 Treatment Standards Expressed as Specific Technologies for the EPA waste code D009 (High Mercury-Inorganic Subcategory). CHGM proposes to treat, using stabilization technologies, High-Mercury Subcategory residue wastes from the Clean Harbors Aragonite, LLC incinerator. All actions will be performed in accordance with the Clean Harbors Grassy Mountain State-issued Part B Permit.

40 CFR 260.20(b)(3): CHGM is proposing to dispose of treated High Mercury Subcategory hazardous waste that has been treated below a mercury concentration of 0.025mg/l using the Toxicity Characteristic Leaching Procedure (TCLP). Stabilization is the standard treatment method for waste containing D009 (Low Mercury Subcategory) and CHGM is permitted to perform stabilization processes. CHGM has recently conducted the enclosed stabilization treatability studies on this waste stream and determined that this waste can be successfully treated to the applicable treatment standard of 0.025 mg/l TCLP specified for D009 (Low Mercury Subcategory) in R315-268-40. Prior to final disposal of the waste in the landfill, CHGM will confirm that the treatment process is successful in meeting the land disposal restriction treatment standards.

40 CFR 260.20(b)(4): The D009 High Mercury-Inorganic Subcategory is described in the R315-268-40 "Treatment Standards for Hazardous Wastes" table. The description is as follows:

> "Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)."

The listed treatment technology in 40 CFR 268.40 for D009 High Mercury-Inorganic Subcategory waste is RMERC.

The need and justification for this action is as follows:

- The intent of the RMERC treatment process is to retort or roast materials in a thermal processing unit in order to recover elemental mercury for recycling. However, the waste stream carries numerous EPA codes which the mercury retorter is not permitted to accept and does not meet their variance under the Boiler and Industrial Furnace (BIF) exemption. Attached with this variance request are correspondences, dated June 14, 2016, and March 10, 2017, from Mercury Waste Solutions, LLC (MWS), and Veolia Environmental Services documenting the unacceptability of this waste for retorting.

- Grassy Mountain was previously granted a treatment variance for the same waste steam by the Board on March 12, 2009, November 23, 2010, June 20, 2013, and February 18, 2015 for D009 High Mercury-Inorganic Subcategory residue waste streams from the Aragonite facility. Grassy Mountain was able to successfully stabilize the waste to meet the land disposal treatment standards.

- Analyses for the current containers of bag house dust indicate that the levels of mercury are within the parameters of waste that was previously stabilized to meet land disposal treatment standards. Copies of the current associated analytical data for the waste to be treated are included with this request. Additionally, copies of the current mercury treatability study demonstrating CHGM's ability to successfully treat the waste are included with this submittal.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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."

If you have any questions, please contact me at (435) 884-8900.

Sincerely,

Shane B. Whitney

Shane B. Whitney
General Manager
Grassy Mountain Facility

cc: Ed Costomiris, UDEQ/DSHW
Jeff Coombs, EHS, MPA Health Officer, Tooele County Health Department
Grassy Mountain File

Variance Container Spreadsheet

Boxes needing variance for mercury

Baghouse Profile: GM91-2669B

In Service	Out Service	Box ID	Type	Wt	TCLP Mercury mg/L	Total Mercury mg/Kg
23-Dec-15	23-Dec-15	CHIU255085	BAGHOUSE	18800	0.446	586
20-May-16	20-May-16	CLHA258239	BAGHOUSE	14740	2.21	320
21-May-16	21-May-16	CHIU320049	BAGHOUSE	14980	0.066	340
18-Jun-16	19-Jun-16	CHIU250119	BAGHOUSE	19900	4.39	294
15-Aug-16	16-Aug-16	CHIU320176	BAGHOUSE	21400	0.193	375
16-Aug-16	17-Aug-16	CLHA270003	BAGHOUSE	16880	0.157	386
5-Sep-16	6-Sep-16	CHIU255095	BAGHOUSE	16010	0.078	317
6-Sep-16	6-Sep-16	CLHA250194	BAGHOUSE	17520	0.078	545
7-Sep-16	8-Sep-16	CLHA250251	BAGHOUSE	13820	0.17	308
16-Sep-16	17-Sep-16	A287777	BAGHOUSE	19380	7.5	559
17-Sep-16	17-Sep-16	CHIU320028	BAGHOUSE	20060	7.5	278
25-Sep-16	26-Sep-16	CLHA200324	BAGHOUSE	17220	5.2	262

Rolloff Box Information					TCLP Metals			Total Mercury		LDR Organics Analysis		
	Service Dates			Clive PR	Residue Daily Composite Information					Residue Weekly Composite Information		
Box ID	In	Out	Wt	Date	Sample ID	AG LIMS #	Outside Lab ID	Sample ID	AG LIMS #	Sample ID	AG LIMS #	Outside Lab ID
CHIU255085	12/23/2015	12/23/2015	18800		RD1151223S01-S06	1512028-02	KE1677844	CHIU255085	1603081-02	RD151221-151227	1512033-02	KE1577830
CLHA258239	5/20/2016	5/20/2016	14740		RD160519S06-160520S05	1605025-02	KE1678907	CLHA258239	1606203-02	RD160516-160522	1605028-02	KE1678895
CHIU320049	5/21/2016	5/21/2016	14980		RD160520S06-160521S05	1605026-02	KE1678909	CHIU320049	1606203-03	RD160516-160522	1605028-02	KE1678895
CHIU250119	6/18/2016	6/19/2016	19900		RD160617S06-160618S05	1606020-02	KE1679145	CHIU250119	1606159-08	RD160613-160619	1606022-02	KE1679083
					RD160618S06-160619S05	1606021-02	KE1679147					
CHIU320176	8/15/2016	8/16/2016	21400		RD160814S06-160815S05	1608017-02	KE1679493	CHIU320176	1609068-01	RD160815-160821	1608024-02	KE1679476
					RD160815S06-160816S05	1608018-02	KE1679495					
CLHA270003	8/16/2016	8/17/2016	16880		RD160815S06-160816S05	1608018-02	KE1679495	CLHA270003	1609068-03	RD160815-160821	1608024-02	KE1679476
					RD160816S06-160817S05	1608019-02	KE1679497					
CHIU255095	9/5/2016	9/6/2016	16010		RD160904S06-160905S05	1609006-02	280-88233-3	CHIU255095	1609068-06	RD160905-160911	1609013-02	KE1679565
					RD160905S06-160906S05	1609007-02	280-88233-5					
CLHA250194	9/6/2016	9/6/2016	17520		RD160905S06-160906S05	1609007-02	280-88233-5	CLHA250194	1609068-07	RD160905-160911	1609013-02	KE1679565
CLHA250251	9/6/2016	9/7/2016	13820		RD160905S06-160906S05	1609007-02	280-88233-5	CLHA250251	1609068-09	RD160905-160911	1609013-02	KE1679565
					RD160906S06-160907S05	1609008-02	280-88233-7					
A287777	9/16/2016	9/17/2016	19380		RD160915S06-160916S05	1609018-02	280-88461-12	A287777	1610015-01	RD160912-160918	1609021-02	KE1679574
					RD160916S06-160917S05	1609019-02	280-88461-14					
CHIU320028	9/17/2016	9/17/2016	20060		RD160916S06-160917S05	1609019-02	280-88461-14	CHIU320028	1610015-02	RD160912-160918	1609021-02	KE1679574
CLHA200324	9/25/2016	9/26/2016	17220		RD160924S06-160925S06	1609028-02	280-88790-16	CLHA200324	1610015-07	RD160919-160925	1609029-02	KE1679586
					RD160925S06-160926S05	1609030-02	280-89218-3			RD160926-161002	1610007-02	KE1679592

Analytical Review for Individual Variance Containers

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID A287777

IN SERVICE DATE
From: 9/16/2016
To: 9/17/2016

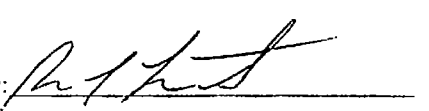
	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Sb	F039 K021 K172 UTS	1.15	1.3	mg/L
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	8.4	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	1.1	mg/L
Hg	D009	0.2	7.5	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	7.5	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.21	mg/L
Zn	K061 UTS	4.3	290	mg/L

ROLLOFF BOX
TOTAL MERCURY: 559 mg/Kg

Reviewed by: 

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1610015 **Sample Fraction** 01

Sample Date 10/4/2016 **Sample Fraction ID** A287777

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**559.0**	mg/Kg	0.06	gt	10/4/2016

LIMS ID 1610015 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 04

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

Client Sample ID: 1609018-02
Date Collected: 09/21/16 12:00
Date Received: 09/22/16 09:00

Lab Sample ID: 280-88461-12
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.22**		0.20	0.016	mg/L		09/26/16 13:45	09/28/16 02:28	1
Barium	**0.24**	J B	1.0	0.0020	mg/L		09/26/16 13:45	09/28/16 02:28	1
Beryllium	**0.0036**	J	0.030	0.0020	mg/L		09/26/16 13:45	09/28/16 02:28	1
Cadmium	**5.5**		0.10	0.0020	mg/L		09/26/16 13:45	09/28/16 02:28	1
Chromium	**0.39**	J	0.50	0.0030	mg/L		09/26/16 13:45	09/28/16 02:28	1
Lead	**1.1**		0.50	0.013	mg/L		09/26/16 13:45	09/28/16 02:28	1
Nickel	**1.5**		0.40	0.0060	mg/L		09/26/16 13:45	09/28/16 02:28	1
Selenium	**0.48**		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:28	1
Silver	**0.077**	J	0.50	0.0040	mg/L		09/26/16 13:45	09/28/16 11:56	1
Thallium	ND		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:28	1
Vanadium	**0.20**		0.10	0.0060	mg/L		09/26/16 13:45	09/28/16 02:28	1
Zinc	**290**	B	4.0	0.044	mg/L		09/26/16 13:45	09/28/16 11:58	2
Arsenic	**1.1**		0.50	0.022	mg/L		09/26/16 13:45	09/28/16 02:28	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.4**		1.0	0.015	mg/L		09/27/16 12:30	09/27/16 21:13	500

ent Sample ID: 1609019-02
Date Collected: 09/21/16 12:00
Date Received: 09/22/16 09:00

Lab Sample ID: 280-88461-14
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**1.3**		0.20	0.016	mg/L		09/26/16 13:45	09/28/16 02:33	1
Barium	**1.0**	B	1.0	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Beryllium	ND		0.030	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Cadmium	**8.4**		0.10	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Chromium	**0.018**	J	0.50	0.0030	mg/L		09/26/16 13:45	09/28/16 02:33	1
Lead	**0.44**	J	0.50	0.013	mg/L		09/26/16 13:45	09/28/16 02:33	1
Nickel	**2.6**		0.40	0.0060	mg/L		09/26/16 13:45	09/28/16 02:33	1
Selenium	**0.26**		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:33	1
Silver	**0.21**	J	0.50	0.0040	mg/L		09/26/16 13:45	09/28/16 12:01	1
Thallium	ND		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:33	1
Vanadium	ND		0.10	0.0060	mg/L		09/26/16 13:45	09/28/16 02:33	1
Zinc	**88**	B	2.0	0.022	mg/L		09/26/16 13:45	09/28/16 02:33	1
Arsenic	**0.54**		0.50	0.022	mg/L		09/26/16 13:45	09/28/16 02:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**7.5**		5.0	0.075	mg/L		09/27/16 12:30	09/27/16 21:40	2500

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID **1609019**

Sample Date 9/19/2016

HSWA Date **9/17/2016**

Sample Fraction **01**

Sample Fraction ID **SL160917S01-S12**

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/19/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0 2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	70%				
DCB (surrogate)	105%				

LIMS ID **1609019**

Sample Date 9/19/2016

Sample Fraction **02**

Sample Fraction ID **RD160916S06-160917S05**

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/19/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	70%				
DCB (surrogate)	90%				

LIMS ID **1609019**

Sample Date 9/19/2016

Sample Fraction **03**

Sample Fraction ID **RD160916S06-160917S05**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**395.0**	mg/Kg	0 06	gl	9/20/2016

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609018 — **Sample Fraction** 01

Sample Date 9/19/2016 — **Sample Fraction ID** SL160916S01-S18S04-S21

HSWA Date 9/16/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/19/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	90%				
DCB (surrogate)	95%				

LIMS ID 1609018 — **Sample Fraction** 02

Sample Date 9/19/2016 — **Sample Fraction ID** RD160915S06-160916S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/19/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	115%				
DCB (surrogate)	85%				

LIMS ID 1609018 — **Sample Fraction** 03

Sample Date 9/19/2016 — **Sample Fraction ID** RD160915S06-160916S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**152.0**	mg/Kg	0.06	gt	9/20/2016

HSWA Analytical Review

Matrix **Baghouse Dust**

BOX ID **CLHA250251**

IN SERVICE DATE
From: 9/6/2016
To: 9/7/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	10.0	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	2.5	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.17	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	1.1	mg/L
Zn	K061 UTS	4.3	76	mg/L

ROLLOFF BOX
TOTAL MERCURY: **308mg/Kg**

Reviewed by: _____

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609068 **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 04

LABORATORY SUMMARY REPORT for Daily HSWA

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 Sample Fraction 05

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 Sample Fraction 06

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 Sample Fraction 07

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 Sample Fraction 08

LABORATORY SUMMARY REPORT for Daily HSWA

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 09

Sample Date 9/7/2016 **Sample Fraction ID** CLHA250251

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**308.0**	mg/Kg	0.06	gt	10/3/2016

LIMS ID 1609068 **Sample Fraction** 10

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

Client Sample Results

Client: Clean Harbors Environmental Services Inc
Project/Site. Clean Harbors Aragonite LDR

TestAmerica Job ID: 280-88233-1

.ient Sample ID: 1609007-02
Date Collected: 09/14/16 11:00
Date Received: 09/16/16 09:35

Lab Sample ID: 280-88233-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23		0.20	0.016	mg/L		09/20/16 08:00	09/21/16 14:40	1
Barium	0.11	J B	1.0	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Beryllium	0.0038	J	0.030	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Cadmium	1.8		0.10	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Chromium	0.36	J	0.50	0.0030	mg/L		09/20/16 08:00	09/20/16 21:36	1
Lead	2.5		0.50	0.013	mg/L		09/20/16 08:00	09/20/16 21:36	1
Nickel	0.99	B	0.40	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Selenium	0.13		0.10	0.024	mg/L		09/20/16 08:00	09/20/16 21:36	1
Silver	0.22	J	0.50	0.0040	mg/L		09/20/16 08:00	09/20/16 21:36	1
Thallium	0.028	J	0.10	0.024	mg/L		09/20/16 08:00	09/21/16 14:40	1
Vanadium	0.069	J	0.10	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Zinc	51	B	2.0	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1
Arsenic	0.32	J	0.50	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		0.040	0.00060	mg/L		09/20/16 12:55	09/20/16 22:31	20

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609007
Sample Date 9/7/2016
HSWA Date 9/6/2016

Sample Fraction 01
Sample Fraction ID SL160906S01-S12

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/7/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	85%				
DCB (surrogate)	100%				

LIMS ID 1609007
Sample Date 9/7/2016

Sample Fraction 02
Sample Fraction ID RD160905S06-160906S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/7/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	125%				
DCB (surrogate)	105%				

LIMS ID 1609007
Sample Date 9/7/2016

Sample Fraction 03
Sample Fraction ID RD160905S06-160906S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**461.0**	mg/Kg	0 06	gl	9/12/2016

Client: Clean Harbors Environmental Services Inc
Project/Site: Clean Harbors Aragonite LDR

TestAmerica Job ID: 280-88233-1

.ient Sample ID: 1609008-02
Date Collected: 09/14/16 11:00
Date Received: 09/16/16 09:35

Lab Sample ID: 280-88233-7
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25		0.20	0.016	mg/L		09/20/16 08:00	09/21/16 14:45	1
Barium	0.16	J B	1.0	0.0020	mg/L		09/20/16 08:00	09/20/16 21:42	1
Beryllium	0.0043	J	0.030	0.0020	mg/L		09/20/16 08:00	09/20/16 21:42	1
Cadmium	10		0.10	0.0020	mg/L		09/20/16 08:00	09/20/16 21:42	1
Chromium	0.27	J	0.50	0.0030	mg/L		09/20/16 08:00	09/20/16 21:42	1
Lead	2.2		0.50	0.013	mg/L		09/20/16 08:00	09/20/16 21:42	1
Nickel	1.8	B	0.40	0.0060	mg/L		09/20/16 08:00	09/20/16 21:42	1
Selenium	0.27		0.10	0.024	mg/L		09/20/16 08:00	09/20/16 21:42	1
Silver	1.1		0.50	0.0040	mg/L		09/20/16 08:00	09/20/16 21:42	1
Thallium	0.025	J	0.10	0.024	mg/L		09/20/16 08:00	09/21/16 14:45	1
Vanadium	0.079	J	0.10	0.0060	mg/L		09/20/16 08:00	09/20/16 21:42	1
Zinc	76	B	2.0	0.022	mg/L		09/20/16 08:00	09/20/16 21:42	1
Arsenic	0.24	J	0.50	0.022	mg/L		09/20/16 08:00	09/20/16 21:42	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.10	0.0015	mg/L		09/20/16 12:55	09/20/16 22:33	50

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609008
Sample Date 9/8/2016
HSWA Date 9/7/2016

Sample Fraction 01
Sample Fraction ID SL160906S13-160907S16

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/8/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	45%				
DCB (surrogate)	100%				

LIMS ID 1609008
Sample Date 9/8/2016

Sample Fraction 02
Sample Fraction ID RD160906S06-160907S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/8/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	50%				
DCB (surrogate)	100%				

LIMS ID 1609008
Sample Date 9/8/2016

Sample Fraction 03
Sample Fraction ID RD160906S06-160907S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	382.0	mg/Kg	0.06	gt	9/12/2016

HSWA Analytical Review

Matrix **Baghouse Dust**

BOX ID **CLHA250194**

IN SERVICE DATE
From: 9/6/2016
To: 9/6/2015

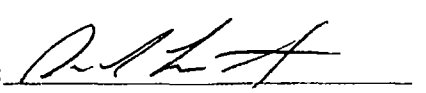
	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	1.8	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	2.5	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.078	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.22	mg/L
Zn	K061 UTS	4.3	51	mg/L

ROLLOFF BOX
TOTAL MERCURY: 545mg/Kg

Reviewed by: 

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609068 **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]		mg/kg			

LIMS ID 1609068 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]	386.0	mg/kg			

LIMS ID 1609068 **Sample Fraction** 04

LABORATORY SUMMARY REPORT for Daily HSWA

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 05

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 06

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 07

Sample Date 9/7/2016 **Sample Fraction ID** CLHA250194

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**545.0**	mg/Kg	0.06	gt	10/3/2016

LIMS ID 1609068 **Sample Fraction** 08

.ent Sample ID: 1609007-02
Date Collected: 09/14/16 11:00
Date Received: 09/16/16 09:35

Lab Sample ID: 280-88233-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23		0.20	0.016	mg/L		09/20/16 08:00	09/21/16 14:40	1
Barium	0.11	J B	1.0	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Beryllium	0.0038	J	0.030	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Cadmium	1.8		0.10	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Chromium	0.36	J	0.50	0.0030	mg/L		09/20/16 08:00	09/20/16 21:36	1
Lead	2.5		0.50	0.013	mg/L		09/20/16 08:00	09/20/16 21:36	1
Nickel	0.99	B	0.40	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Selenium	0.13		0.10	0.024	mg/L		09/20/16 08:00	09/20/16 21:36	1
Silver	0.22	J	0.50	0.0040	mg/L		09/20/16 08:00	09/20/16 21:36	1
Thallium	0.028	J	0.10	0.024	mg/L		09/20/16 08:00	09/21/16 14:40	1
Vanadium	0.069	J	0.10	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Zinc	51	B	2.0	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1
Arsenic	0.32	J	0.50	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		0.040	0.00060	mg/L		09/20/16 12:55	09/20/16 22:31	20

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609007
Sample Date 9/7/2016
HSWA Date 9/6/2016

Sample Fraction 01
Sample Fraction ID SL160906S01-S12

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/7/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	85%				
DCB (surrogate)	100%				

LIMS ID 1609007
Sample Date 9/7/2016

Sample Fraction 02
Sample Fraction ID RD160905S06-160906S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/7/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	125%				
DCB (surrogate)	105%				

LIMS ID 1609007
Sample Date 9/7/2016

Sample Fraction 03
Sample Fraction ID RD160905S06-160906S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**461.0**	mg/Kg	0.06	gl	9/12/2016

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID CHIU320028

IN SERVICE DATE
From: 9/17/2016
To: 9/17/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Sb	F039 K021 K172 UTS	1.15	1.3	mg/L
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	8.4	mg/L
Hg	D009	0.2	7.5	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	7.5	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.21	mg/L
Zn	K061 UTS	4.3	88	mg/L

ROLLOFF BOX
TOTAL MERCURY: 278 mg/Kg

Reviewed by: _____

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1610015 **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 02

Sample Date 10/4/2016 **Sample Fraction ID** CHIU320028

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**278.0**	mg/Kg	0.06	gt	10/4/2016

LIMS ID 1610015 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 04

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

ent Sample ID: 1609019-02
Date Collected: 09/21/16 12:00
Date Received: 09/22/16 09:00

Lab Sample ID: 280-88461-14
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.3		0.20	0.016	mg/L		09/26/16 13:45	09/28/16 02:33	1
Barium	1.0	B	1.0	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Beryllium	ND		0.030	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Cadmium	8.4		0.10	0.0020	mg/L		09/26/16 13:45	09/28/16 02:33	1
Chromium	0.018	J	0.50	0.0030	mg/L		09/26/16 13:45	09/28/16 02:33	1
Lead	0.44	J	0.50	0.013	mg/L		09/26/16 13:45	09/28/16 02:33	1
Nickel	2.6		0.40	0.0060	mg/L		09/26/16 13:45	09/28/16 02:33	1
Selenium	0.26		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:33	1
Silver	0.21	J	0.50	0.0040	mg/L		09/26/16 13:45	09/28/16 12:01	1
Thallium	ND		0.10	0.024	mg/L		09/26/16 13:45	09/28/16 02:33	1
Vanadium	ND		0.10	0.0060	mg/L		09/26/16 13:45	09/28/16 02:33	1
Zinc	88	B	2.0	0.022	mg/L		09/26/16 13:45	09/28/16 02:33	1
Arsenic	0.54		0.50	0.022	mg/L		09/26/16 13:45	09/28/16 02:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	7.5		5.0	0.075	mg/L		09/27/16 12:30	09/27/16 21:40	2500

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609019 — Sample Fraction 01

Sample Date 9/19/2016 — Sample Fraction ID **SL160917S01-S12**

HSWA Date 9/17/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/19/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	70%				
DCB (surrogate)	105%				

LIMS ID 1609019 — Sample Fraction 02

Sample Date 9/19/2016 — Sample Fraction ID **RD160916S06-160917S05**

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/19/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	70%				
DCB (surrogate)	90%				

LIMS ID 1609019 — Sample Fraction 03

Sample Date 9/19/2016 — Sample Fraction ID **RD160916S06-160917S05**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	395.0	mg/Kg	0.06	gt	9/20/2016

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID CHIU255095

IN SERVICE DATE
From: 9/5/2016
To: 9/6/2015

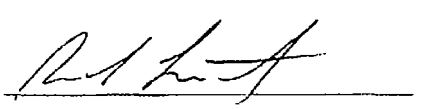
	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	2.2	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	2.5	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.078	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.22	mg/L
Zn	K061 UTS	4.3	51	mg/L

ROLLOFF BOX
TOTAL MERCURY: 317mg/Kg

Reviewed by: 

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609068 **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

[redacted]

LABORATORY SUMMARY REPORT for Daily HSWA

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 05

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 06

Sample Date 9/6/2016 **Sample Fraction ID** CHIU255095

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**317.0**	mg/Kg	0.06	gt	10/3/2016

LIMS ID 1609068 **Sample Fraction** 07

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

[redacted]

Client: Clean Harbors Environmental Services Inc
Project/Site: Clean Harbors Aragonite LDR

TestAmerica Job ID: 280-88233-1

lient Sample ID: 1609006-02
Date Collected: 09/14/16 11:00
Date Received: 09/16/16 09:35

Lab Sample ID: 280-88233-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26		0 20	0 016	mg/L		09/20/16 08:00	09/21/16 14:34	1
Barium	0.20	J B	1 0	0 0020	mg/L		09/20/16 08.00	09/20/16 21:31	1
Beryllium	0.0025	J	0 030	0.0020	mg/L		09/20/16 08:00	09/20/16 21:31	1
Cadmium	2.2		0 10	0.0020	mg/L		09/20/16 08:00	09/20/16 21:31	1
Chromium	0.12	J	0 50	0 0030	mg/L		09/20/16 08:00	09/20/16 21:31	1
Lead	1.5		0.50	0.013	mg/L		09/20/16 08:00	09/20/16 21:31	1
Nickel	0.48	B	0.40	0.0060	mg/L		09/20/16 08:00	09/20/16 21:31	1
Selenium	0.38		0 10	0.024	mg/L		09/20/16 08:00	09/20/16 21:31	1
Silver	0.0060	J	0.50	0.0040	mg/L		09/20/16 08:00	09/20/16 21:31	1
Thallium	ND		0.10	0.024	mg/L		09/20/16 08:00	09/21/16 14:34	1
Vanadium	0.11		0.10	0.0060	mg/L		09/20/16 08:00	09/20/16 21:31	1
Zinc	35	B	2.0	0.022	mg/L		09/20/16 08:00	09/20/16 21:31	1
Arsenic	0.76		0.50	0.022	mg/L		09/20/16 08:00	09/20/16 21:31	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0099		0.0020	0.000030	mg/L		09/20/16 12:55	09/20/16 21:04	1

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609006 — Sample Fraction 01

Sample Date 9/6/2016 — Sample Fraction ID SL160905S01-S18

HSWA Date 9/5/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/6/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	95%				
DCB (surrogate)	105%				

LIMS ID 1609006 — **Sample Fraction** 02

Sample Date 9/6/2016 — **Sample Fraction ID** RD160904S06-160905S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/6/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	90%				
DCB (surrogate)	115%				

LIMS ID 1609006 — **Sample Fraction** 03

Sample Date 9/6/2016 — **Sample Fraction ID** RD160904S06-160905S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	345.0	mg/Kg	0.06	gt	9/12/2016

Client Sample Results

Client: Clean Harbors Environmental Services Inc
Project/Site: Clean Harbors Aragonite LDR

TestAmerica Job ID: 280-88233-1

Client Sample ID: 1609007-02
Date Collected: 09/14/16 11:00
Date Received: 09/16/16 09:35

Lab Sample ID: 280-88233-5
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23		0.20	0.016	mg/L		09/20/16 08:00	09/21/16 14:40	1
Barium	0.11	J B	1.0	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Beryllium	0.0038	J	0.030	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Cadmium	1.8		0.10	0.0020	mg/L		09/20/16 08:00	09/20/16 21:36	1
Chromium	0.36	J	0.50	0.0030	mg/L		09/20/16 08:00	09/20/16 21:36	1
Lead	2.5		0.50	0.013	mg/L		09/20/16 08:00	09/20/16 21:36	1
Nickel	0.99	B	0.40	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Selenium	0.13		0.10	0.024	mg/L		09/20/16 08:00	09/20/16 21:36	1
Silver	0.22	J	0.50	0.0040	mg/L		09/20/16 08:00	09/20/16 21:36	1
Thallium	0.028	J	0.10	0.024	mg/L		09/20/16 08:00	09/21/16 14:40	1
Vanadium	0.069	J	0.10	0.0060	mg/L		09/20/16 08:00	09/20/16 21:36	1
Zinc	51	B	2.0	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1
Arsenic	0.32	J	0.50	0.022	mg/L		09/20/16 08:00	09/20/16 21:36	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		0.040	0.00060	mg/L		09/20/16 12:55	09/20/16 22:31	20

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID **1609007**
Sample Date 9/7/2016
HSWA Date **9/6/2016**

Sample Fraction 01
Sample Fraction ID SL160906S01-S12

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/7/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	85%				
DCB (surrogate)	100%				

LIMS ID **1609007**
Sample Date 9/7/2016

Sample Fraction 02
Sample Fraction ID **RD160905S06-160906S05**

	Result	Units	*Report Limit*	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/7/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	125%				
DCB (surrogate)	105%				

LIMS ID 1609007
Sample Date 9/7/2016

Sample Fraction 03
Sample Fraction ID **RD160905S06-160906S05**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**461.0**	mg/Kg	0.06	gt	9/12/2016

HSWA Analytical Review

Matrix **Baghouse Dust**

BOX ID **CLHA200324**

IN SERVICE DATE
From: 9/25/2016
To: 9/26/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	5.3	mg/L
Pb	D008	5.0	11	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	11	mg/L
Hg	D009	0.2	5.2	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	5.2	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.14	mg/L
Zn	K061 UTS	4.3	90	mg/L

ROLLOFF BOX
TOTAL MERCURY: 262mg/Kg

Reviewed by: _____

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1610015 **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]			0.06		

LIMS ID 1610015 **Sample Fraction** 04

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LABORATORY SUMMARY REPORT for Daily HSWA

LIMS ID 1610015 Sample Fraction 05

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 Sample Fraction 06

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1610015 Sample Fraction 07

Sample Date 9/24/2016 Sample Fraction ID CLHA200324

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**262.0**	mg/Kg	0.06	gt	10/13/2016

LIMS ID 1610015 Sample Fraction 08

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

Client Sample Results

Client: Clean Harbors Environmental Services Inc
Project/Site: Clean Harbors Aragonite LDR

TestAmerica Job ID 280-88790-1

lient Sample ID: 1609028-02
Date Collected: 09/28/16 12:00
Date Received: 09/30/16 10:30

Lab Sample ID: 280-88790-16
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.44		0.20	0.016	mg/L		10/04/16 14:45	10/04/16 23:24	1
Arsenic	1.5		0.50	0.022	mg/L		10/04/16 14:45	10/04/16 23:24	1
Barium	0.91	J B	1.0	0.0020	mg/L		10/04/16 14:45	10/04/16 23:24	1
Beryllium	0.0029	J	0.030	0.0020	mg/L		10/04/16 14:45	10/04/16 23:24	1
Cadmium	3.5	F1	0.10	0.0020	mg/L		10/04/16 14:45	10/04/16 23:24	1
Chromium	0.17	J	0.50	0.0030	mg/L		10/04/16 14:45	10/04/16 23:24	1
Lead	0.55		0.50	0.013	mg/L		10/04/16 14:45	10/04/16 23:24	1
Nickel	1.2	B F1	0.40	0.0060	mg/L		10/04/16 14:45	10/04/16 23:24	1
Selenium	1.5		0.10	0.024	mg/L		10/04/16 14:45	10/04/16 23:24	1
Silver	0.14	J B	0.50	0.0040	mg/L		10/04/16 14:45	10/04/16 23:24	1
Thallium	ND	F1	0.10	0.024	mg/L		10/04/16 14:45	10/04/16 23:24	1
Vanadium	0.21		0.10	0.0060	mg/L		10/04/16 14:45	10/04/16 23:24	1
Zinc	90	B	2.0	0.022	mg/L		10/04/16 14:45	10/04/16 23:24	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.2		2.0	0.030	mg/L		10/05/16 11:45	10/05/16 20:31	1000

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aplus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609028
Sample Date 9/26/2016
HSWA Date 9/25/2016

Sample Fraction 01
Sample Fraction ID **SL160925S01-S18**

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/26/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	65%				
DCB (surrogate)	85%				

LIMS ID 1609028
Sample Date 9/26/2016

Sample Fraction 02
Sample Fraction ID **RD160924S06-160925S05**

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/26/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	50%				
DCB (surrogate)	110%				

LIMS ID 1609028
Sample Date 9/26/2016

Sample Fraction 03
Sample Fraction ID **RD160924S06-160925S05**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**309.0**	mg/Kg	0.06	gt	9/27/2016

Client Sample Results

Client: Clean Harbors Environmental Services Inc
Project/Site: Clean Harbors Aragonite LDR

TestAmerica Job ID: 280-89218-1

Client Sample ID: 1609030-02
Date Collected: 10/05/16 12:00
Date Received: 10/07/16 09:15

Lab Sample ID: 280-89218-3
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.47**		0.20	0.016	mg/L		10/13/16 07:30	10/14/16 04:07	1
Arsenic	**1.7**		0.50	0.022	mg/L		10/13/16 07:30	10/14/16 04:07	1
Barium	**0.31**	J	1.0	0.0030	mg/L		10/13/16 07:30	10/14/16 04:07	1
Beryllium	ND		0.030	0.0020	mg/L		10/13/16 07:30	10/14/16 04:07	1
Cadmium	**5.3**		0.10	0.0020	mg/L		10/13/16 07:30	10/14/16 04:07	1
Chromium	**0.19**	J	0.50	0.0030	mg/L		10/13/16 07:30	10/14/16 04:07	1
Lead	**11**		0.50	0.013	mg/L		10/13/16 07:30	10/14/16 04:07	1
Nickel	**1.7**	B	0.40	0.0060	mg/L		10/13/16 07:30	10/14/16 04:07	1
Selenium	**0.69**	B	0.10	0.024	mg/L		10/13/16 07:30	10/14/16 04:07	1
Silver	**0.0088**	J	0.50	0.0050	mg/L		10/13/16 07:30	10/14/16 04:07	1
Thallium	ND		0.10	0.025	mg/L		10/13/16 07:30	10/14/16 04:07	1
Vanadium	**0.049**	J	0.10	0.0060	mg/L		10/13/16 07:30	10/14/16 04:07	1
Zinc	**85**	B	2.0	0.023	mg/L		10/13/16 07:30	10/14/16 04:07	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.26**	B	0.20	0.0030	mg/L		10/13/16 12:40	10/13/16 22:19	100

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609030 — Sample Fraction 01

Sample Date 9/27/2016 — Sample Fraction ID SL160926S01-S12

HSWA Date 9/26/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	9/27/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	75%				
DCB (surrogate)	95%				

LIMS ID 1609030 — Sample Fraction 02

Sample Date 9/27/2016 — Sample Fraction ID RD160925S06-160926S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	9/27/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	80%				
DCB (surrogate)	100%				

LIMS ID 1609030 — Sample Fraction 03

Sample Date 9/27/2016 — Sample Fraction ID RD160925S06-160926S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**216.0**	mg/Kg	0.06	gt	9/27/2016

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID **CHIU255085**

IN SERVICE DATE
From: 12/23/2015
To: 12/23/2016

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]
OK TO SHIP	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	3.76	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	2.08	mg/L
Hg	D009	0.2	0.446	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.446	mg/L
Zn	K061 UTS	4.3	43.6	mg/L

TOTAL MERCURY: 586mg/Kg

Reviewed by: [signature] 3/11/16

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID [redacted]

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1603081 Sample Fraction 02

Sample Date 2/15/2016 Sample Fraction ID CHIU255085

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	586.0	mg/Kg	0.06	gt	3/10/2016

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201601121056
Tuesday, January 12, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1512028-02 | Lab Sample ID KE1677844 | SDG 2019

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: na
Prep Batch ID: E0942-16

Data Entered By: WaiteD | Sampling Date: 12/30/2015 | Cleanup Batch ID:
Peer Reviewed By: ShayJ | Analysis Date: 1/6/2016 | Analysis Batch ID: 160106 ARG 2019

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	446		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 * Kimball * NE 69145 US

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201601121056
Tuesday, January 12, 2016

All results are reported on a wetweight basis unless otherwise noted.

Client ID 1512028-02 | Lab Sample ID KE1677844 | SDG 2019

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6020A
Prep Method: EPA 3005A ML

TCLP Batch ID: NA
Prep Batch ID: E0933-34
Cleanup Batch ID:
Analysis Batch ID: 160106 MS ARG 2019

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 12/30/2015
Analysis Date: 1/6/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.237		0.100	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	1.38		0.150	0.150	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	1.18		0.100	0.100	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.100	0.100	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	3.76		0.100	0.100	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.100	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	2.08		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	2.45		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.369		0.200	0.200	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	0.122		0.100	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	ND		0.150	0.150	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	43.6		0.200	0.200	mg/L	4.3 mg/L TCLP

QC Issues

3005 ML

Batch QC Smp: KE1677839

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 * Kimball * NE 69145 US

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID: 1512028
Sample Date: 12/23/2015
HSWA Date: 12/23/2015
Sample Fraction: 01
Sample Fraction ID: SL151223S01-S23

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND		0.2	RC	12/23/2015
A-1248 3550B/8280A	ND		0.2		
A-1254 3550B/8280A	ND		0.2		
A-1260 3550B/8280A	ND		0.2		
A-1268 3550B/8280A	ND		0.2		
Total PCB Aroclor	ND		0.4		
TCMX (surrogate)	105%				
DCB (surrogate)	130%				

LIMS ID: 1512028
Sample Date: 12/23/2015
Sample Fraction: 02
Sample Fraction ID: RD151223S01-S06

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	12/23/2015
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	ND	mg/Kg	0.4		
TCMX (surrogate)	145%				
DCB (surrogate)	145%				

LIMS ID: 1512028
Sample Date: 12/23/2015
Sample Fraction: 03
Sample Fraction ID: RD151223S01-S06
0

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	405.0	mg/Kg	0.06	kw	12/28/2015

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID CLHA258239

IN SERVICE DATE
From: 5/20/2016
To: 5/20/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	
OK TO SHIP	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	1.52	mg/L
Hg	D009	0.2	2.21	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	2.21	mg/L
Zn	K061 UTS	4.3	36.8	mg/L

TOTAL MERCURY: 320mg/Kg

Reviewed by: _____ 1-26-17

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606203 **Sample Fraction** 02

Sample Date 6/30/2016 **Sample Fraction** CLHA258239

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**320.0**	mg/Kg	0.06	gt	6/30/2016

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

CleanHarbors

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201606061256
Monday, June 06, 2016

All results are reported on a wet-weight basis unless otherwise noted.

Client ID 1605025-02 | Lab Sample ID KE1678907 | SDG 2124

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E0942-69
Cleanup Batch ID:
Analysis Batch ID: 160529 Hg ARG 2124

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 5/25/2016
Analysis Date: 5/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	50.0	2210		100.000	100.000	ug/L	0.025 mg/L TCLP

QC Issues: 7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

CleanHarbors

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201606061256
Monday, June 06, 2016

All results are reported on a wet weight basis unless otherwise noted.

Client ID 160502502 | Lab Sample ID KE1678907 | SDG 2124

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0933-89
Cleanup Batch ID:
Analysis Batch ID: 160529 8300 ARG 2124

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 5/25/2016
Analysis Date: 5/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.283		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	0.267		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.170		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	1.52		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	0.353		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.731		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	ND		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	0.126		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	36.8		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues — 3005

There were low matrix spike recoveries for beryllium, nickel, thallium, and zinc. The LCS recoveries and the MS/MSD RPDs were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recoveries were a product of matrix interference.

Batch QC Smp: KE1678898

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropriate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1605025 — Sample Fraction 01

Sample Date 5/23/2016 — Sample Fraction ID SL160519S01-S12

HSWA Date 5/20/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	5/23/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	110%				
DCB (surrogate)	115%				

LIMS ID 1605025 — Sample Fraction 02

Sample Date 5/23/2016 — Sample Fraction ID RD160519S06-160520S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	5/23/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	80%				
DCB (surrogate)	120%				

LIMS ID 1605025 — Sample Fraction 03

Sample Date 5/23/2016 — Sample Fraction ID RD160519S06-160520S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	821.0	mg/Kg	0.06	kw	5/26/2016

HSWA Analytical Review

Matrix BAGHOUSE DUST

BOX ID CHIU320049

IN SERVICE DATE
From: 5/21/2016
To: 5/21/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	
OK TO SHIP	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	1.38	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.066	mg/L
Zn	K061 UTS	4.3	9.97	mg/L

TOTAL MERCURY: 340mg/Kg

Reviewed by: _____

1-26-17

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID **1606203** **Sample Fraction** 03

Sample Date 6/30/2016 **Sample Fraction** CHIU320049

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**340.0**	mg/Kg	0.06	gt	6/30/2016

Clean Harbors, Inc.
Laboratory Test Report

Report ID
201606061258
Monday, June 06, 2016

All results are reported on a wet-weight basis unless otherwise noted.

Client ID 1605026-02 | Lab Sample ID KE1678909 | SDG 2124

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E0942-69
Cleanup Batch ID:
Analysis Batch ID: 160529 Hg ARG 2124

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 5/25/2016
Analysis Date: 5/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	65.9		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 * Kimball * NE 69145 US

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201606061256
Monday, June 06, 2016

All results are reported on a wet-weight basis unless otherwise noted.

Client ID 1605026-02. Lab Sample ID KE1678909 SDG 2124

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0933-89
Cleanup Batch ID:
Analysis Batch ID: 160529 8300 ARG 2124

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 5/25/2016
Analysis Date: 5/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.152	J	0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	ND		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.208		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	1.38		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	ND		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.632		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	ND		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	ND		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	9.97		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues: The antimony concentration is reported with a "J" flag, because, this value is between the LOD and the LOQ. *3005*

There were low matrix spike recoveries for beryllium, nickel, thallium, and zinc. The LCS recoveries and the MS/MSD RPDs were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recoveries were a product of matrix interference. Batch QC Smp: KE1678898

Projects differ from one another in their requirements. The client must ensure that all analytes needed are present and that the reporting limits are appropriate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID: 1605026
Sample Date: 5/23/2016
HSWA Date: 5/21/2016

Sample Fraction: 01
Sample Fraction ID: SL160521S01-S24

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A'	ND	mg/Kg	0.2	RC	5/23/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	115%				
DCB (surrogate)	120%				

LIMS ID: 1605026
Sample Date: 5/23/2016

Sample Fraction: 02
Sample Fraction ID: RD160520S06-160521S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	5/23/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	125%				
DCB (surrogate)	120%				

LIMS ID: 1605026
Sample Date: 5/23/2016

Sample Fraction: 03
Sample Fraction ID: RD160520S06-160521S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**561.0**	mg/Kg	0.06	kw	5/26/2016

HSWA Analytical Review

Matrix BAGHOUSE DUST

BOX ID CHIU250119

IN SERVICE DATE
From: 6/18/2016
To: 6/19/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	
OK TO SHIP	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	7.8	mg/L
Hg	D009	0.2	4.39	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	4.39	mg/L
Zn	K061 UTS	4.3	46.0	mg/L

TOTAL MERCURY: 294mg/Kg

Reviewed by: _____

1-26-17

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 **Sample Fraction** 04

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LABORATORY SUMMARY REPORT for Daily HSWA

LIMS ID 1606159 Sample Fraction 05

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 Sample Fraction 06

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 Sample Fraction 07

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1606159 Sample Fraction 08

Sample Date 7/7/2016 Sample Fraction ICHIU250119

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	294.0	mg/Kg	0.06	GT	7/8/2016

LIMS ID 1606159 Sample Fraction 09

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

CleanHarbors

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201607071003
Thursday, July 07, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1606020-02 | Lab Sample ID KE1679145 | SDG 2153

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E0942-80
Cleanup Batch ID:

Data Entered By: ShayJ
Peer Reviewed By: WaiteD

Sampling Date: 6/22/2016
Analysis Date: 6/28/2016

Analysis Batch ID: 160628 Hg Ash and ARG 2153

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	50.0	3750		100.000	100.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Clean Harbors, Inc.

Laboratory Test Report

Report ID
20160707100
Thursday, July 07, 2016

All results are reported on a wet weight basis unless otherwise noted.

Client ID 1606020-02 | Lab Sample ID KE1679145 | SDG 2153

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-03
Cleanup Batch ID:
Analysis Batch ID: 160630 8300 ARG 2153

Data Entered By: ShayJ
Peer Reviewed By: WaiteD

Sampling Date: 6/22/2016
Analysis Date: 6/30/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.472		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	1.49		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.303		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	7.75		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	0.118		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.550		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.592		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	0.138		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	46.0		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues

3005

There was a low matrix spike recovery for thallium. The thallium recovery in the LCS and the thallium MS/MSD RPD were both within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interferrence. None of the samples had a reportable concentration, for thallium, above the LOD

Batch QC Smp. KE1679136

Projects differ from one another in their requirements. The client must ensure that all analytes needed are present and that the reporting limits are appropriate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lant
Lab Manager

LIMS ID: 1606020
Sample Date: 6/20/2016
HSWA Date: 6/18/2016
Sample Fraction: 01
Sample Fraction ID: SL160617S19-160618S28

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	6/21/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	125%				
DCB (surrogate)	140%				

LIMS ID: 1606020
Sample Date: 6/20/2016
Sample Fraction: 02
Sample Fraction ID: RD160617S06-160618S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	6/21/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	25%				
DCB (surrogate)	145%				

LIMS ID: 1606020
Sample Date: 6/20/2016
Sample Fraction: 03
Sample Fraction ID: RD160617S06-160618S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	388.0	mg/Kg	0.06	js	6/22/2016

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201607071004
Thursday, July 07, 2016

All results are reported on a wet weight basis unless otherwise noted.

Client ID 1606021-02 | Lab Sample ID KB1679147 | SDG 2153

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E0942-80

Data Entered By: ShayJ | Sampling Date: 6/22/2016 | Cleanup Batch ID:

Peer Reviewed By: WaiteD | Analysis Date: 6/28/2016 | Analysis Batch ID: 160628 Hg Ash and ARG 2153

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	50.0	4390		100.000	100.000	ug/L	0.025 mg/L TCLP

QC Issues:

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 • Kimball • NE 69145 US

Clean Harbors, Inc.

Laboratory Test Report

Report ID
20160707100
Thursday, July 07, 2016

All results are reported on a wet weight basis unless otherwise noted

Client ID 1606021-02 | Lab Sample ID KE1679147 | SDG 2153

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-03
Cleanup Batch ID:
Analysis Batch ID: 160630 8300 ARG 2153

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 6/22/2016
Analysis Date: 6/30/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.422		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	0.954		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.224		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	5.34		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	0.060	J	0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	0.246		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.645		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.491	J	0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7440-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	0.234		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	29.7		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues: The chromium and selenium concentrations are reported with "J" flags, because, these values are between the LOD and the LOQ *3005*

There was a low matrix spike recovery for thallium. The thallium recovery in the LCS and the thallium MS/MSD RPD were both within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interference. None of the samples had a reportable concentration, for thallium, above the LOD. Batch QC Smp. KE1679136

Projects differ from one another in their requirements. The client must ensure that all analytes needed are present and that the reporting limits are appropriate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 • Kimball • NE 69145 US

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1606021 — Sample Fraction 01

Sample Date 6/20/2016 — Sample Fraction ID SL160619S01-160620S02

HSWA Date 6/19/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	6/21/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	130%				
DCB (surrogate)	145%				

LIMS ID 1606021 — Sample Fraction 02

Sample Date 6/20/2016 — Sample Fraction ID RD160618S06-160619S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	6/21/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	50%				
DCB (surrogate)	145%				

LIMS ID 1606021 — Sample Fraction 03

Sample Date 6/20/2016 — Sample Fraction ID RD160618S06-160619S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	232.0	mg/Kg	0.06	js	6/22/2016

HSWA Analytical Review

Matrix **Baghouse Dust**

BOX ID **CHIU320176**

IN SERVICE DATE
From: 8/15/2016
To: 8/16/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	2.54	mg/L
Hg	D009	0.2	0.193	mg/L
Zn	K061 UTS	4.3	214	mg/L

ROLLOFF BOX
TOTAL MERCURY: 375mg/Kg

Reviewed by: _____

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1609068 **Sample Fraction** 01

Sample Date 8/17/2016 **Sample Fraction** CHIU320176

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**375.0**	mg/Kg	0.06	gt	9/12/2016

LIMS ID 1609068 **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID 1609068 **Sample Fraction** 03

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081101
Thursday, September 08, 2016

All results are reported on a wet weight basis unless otherwise noted

Client ID 1608017-02 | Lab Sample ID KE1679493 | SDG 2194

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E968-11
Cleanup Batch ID:
Analysis Batch ID: 160829 Hg ARG 2194

Data Entered By: WaiteD
Peer Reviewed By: ShayJ
Sampling Date: 8/24/2016
Analysis Date: 8/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	193		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Lab Manager
Richard Roylance
(308) 235-8222

Kimball Laboratory
2247 South Highway 71 * Kimball * NE 69145 US

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081101
Thursday, September 08, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1608017-02 | Lab Sample ID KE1679493 | SDG 2194

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-28
Cleanup Batch ID:
Analysis Batch ID: 160825 8300 ARG 2194

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 8/24/2016
Analysis Date: 8/30/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.320		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	0.545		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.208		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	2.54		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	ND		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.499		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	1.22		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	ND		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	ND		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	214		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues

3005

There was a low matrix spike recovery for beryllium. The LCS recovery and the MS/MSD RPD result, for beryllium, were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interference. Upon review of the emission spectra, it was discovered that there was an interfering wavelength, causing one of the background points to be erroneously high, resulting in low intensity measurement corrections. The background point was adjusted and the sample set was reprocessed, resulting in matrix spike data that is within acceptance limits.

Batch QC Smp: KE1679492

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1608017 — Sample Fraction 01

Sample Date 8/16/2016 — Sample Fraction ID SL160814S13-160815S17

HSWA Date 8/15/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	8/16/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	55%				
DCB (surrogate)	85%				

LIMS ID 1608017 — Sample Fraction 02

Sample Date 8/16/2016 — Sample Fraction ID RD160814S06-160815S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	8/16/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	100%				
DCB (surrogate)	130%				

LIMS ID 1608017 — Sample Fraction 03

Sample Date 8/16/2016 — Sample Fraction ID RD160814S06-160815S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**184.0**	mg/Kg	0.06	gl	8/18/2016

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081107
Thursday, September 08, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1608018-02 | Lab Sample ID KE1679495 | SDG 2194

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E968-11
Cleanup Batch ID:
Analysis Batch ID: 160829 Hg ARG 2194

Data Entered By: WaiteD
Peer Reviewed By: ShayJ
Sampling Date: 8/24/2016
Analysis Date: 8/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	95.9		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081107
Thursday, September 08, 2016

All results are reported on a wet weight basis unless otherwise noted.

Client ID 160801802 | Lab Sample ID KE1679495 | SDG 2194

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-28
Cleanup Batch ID:
Analysis Batch ID: 160825 8300 ARG 2194

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 8/24/2016
Analysis Date: 8/30/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.309		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	ND		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.175		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	2.29		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	ND		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.353		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.681		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	0.112		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	0.103		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	128		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues

3005

There was a low matrix spike recovery for beryllium The LCS recovery and the MS/MSD RPD result, for beryllium, were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interference. Upon review of the emission spectra, it was discovered that there was an interfering wavelength, causing one of the background points to be erroneously high, resulting in low intensity measurement corrections. The background point was adjusted and the sample set was reprocessed, resulting in matrix spike data that is within acceptance limits.

Batch QC Smp: KE1679492

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use
Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aplus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID: 1608018
Sample Fraction: 01
Sample Date: 8/17/2016
Sample Fraction ID: SL160816S01-S18
HSWA Date: 8/16/2016

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	8/17/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	115%				
DCB (surrogate)	120%				

LIMS ID: 1608018
Sample Fraction: 02
Sample Date: 8/17/2016
Sample Fraction ID: RD160815S06-160816S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	8/17/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	mg/Kg	0.4		
TCMX (surrogate)	100%				
DCB (surrogate)	125%				

LIMS ID: 1608018
Sample Fraction: 03
Sample Date: 8/17/2016
Sample Fraction ID: RD160815S06-160816S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	274.0	mg/Kg	0.06	gt	8/18/2016

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID CLHA270003

IN SERVICE DATE
From: 8/16/2016
To: 8/17/2016

	YES	NO
Dioxin Campaign:	X	
K061 Campaign:	X	

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	4.19	mg/L
Hg	D009	0.2	0.157	mg/L
Zn	K061 UTS	4.3	128	mg/L

ROLLOFF BOX
TOTAL MERCURY: 386 mg/Kg

Reviewed by: _____

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID **1609068** **Sample Fraction** 01

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID **1609068** **Sample Fraction** 02

[redacted]

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
[redacted]					

LIMS ID **1609068** **Sample Fraction** 03

Sample Date 8/17/2016 **Sample Fraction I** **CLHA270003**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**386.0**	mg/Kg	0.06	gt	9/12/2016

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081107
Thursday, September 08, 2016

All results are reported on a wet weight basis unless otherwise noted.

Client ID 1608018-02 | Lab Sample ID KE1679495 | SDG 2194

Test *Mercury NWW UTS (liquids)
Analytical Method: EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E968-11
Cleanup Batch ID:
Analysis Batch ID: 160829 Hg ARG 2194

Data Entered By: WaiteD
Peer Reviewed By: ShayJ
Sampling Date: 8/24/2016
Analysis Date: 8/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	95.9		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues

7470

Batch QC Smp:

Projects differ from one another in their requirments The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081107
Thursday, September 08, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1608018-02 | Lab Sample ID KE1679495 | SDG 2194

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-28
Cleanup Batch ID:
Analysis Batch ID: 160825 8300 ARG 2194

Data Entered By: ShayJ
Peer Reviewed By: WaiteD
Sampling Date: 8/24/2016
Analysis Date: 8/30/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.309		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	ND		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.175		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	2.29		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	ND		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.353		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.681		0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	0.112		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	0.103		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	128		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues

3005

There was a low matrix spike recovery for beryllium. The LCS recovery and the MS/MSD RPD result, for beryllium, were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interference. Upon review of the emission spectra, it was discovered that there was an interfering wavelength, causing one of the background points to be erroneously high, resulting in low intensity measurement corrections. The background point was adjusted and the sample set was reprocessed, resulting in matrix spike data that is within acceptance limits.

Batch QC Smp: KE1679492

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use. Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID: 1608018
Sample Date: 8/17/2016
HSWA Date: 8/16/2016
Sample Fraction: 01
Sample Fraction ID: SL160816S01-S18

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	8/17/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	**mg/Kg**	0.4		
TCMX (surrogate)	115%				
DCB (surrogate)	120%				

LIMS ID: 1608018
Sample Date: 8/17/2016
Sample Fraction: 02
Sample Fraction ID: RD160815S06-160816S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	8/17/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	**mg/Kg**	0.4		
TCMX (surrogate)	100%				
DCB (surrogate)	125%				

LIMS ID: 1608018
Sample Date: 8/17/2016
Sample Fraction: 03
Sample Fraction ID: RD160815S06-160816S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	274.0	mg/Kg	0.06	gl	8/18/2016

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081115
Thursday, September 08, 2016

All results are reported on a wet weight basis unless otherwise noted

Client ID 1608019-02 | Lab Sample ID KE1679497 | SDG 2194

Test *Mercury NWW UTS (liquids)
Analytical Method EPA 7470A
Prep Method: EPA 7470A

TCLP Batch ID: NA
Prep Batch ID: E968-11
Cleanup Batch ID:
Analysis Batch ID: 160829 Hg ARG 2194

Data Entered By: WaiteD
Peer Reviewed By: ShayJ
Sampling Date: 8/24/2016
Analysis Date: 8/29/2016

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Mercury	7439-97-6	5.0	157		10.000	10.000	ug/L	0.025 mg/L TCLP

QC Issues:

7470

Batch QC Smp:

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

Clean Harbors, Inc.

Laboratory Test Report

Report ID
201609081115
Thursday, September 08, 2016

All results are reported on a wet-weight basis unless otherwise noted

Client ID 1608019-02 | Lab Sample ID KE1679497 | SDG 2194

Test *Metals NWW UTS (liquids)
Analytical Method: EPA 6010C
Prep Method: EPA 3005A

TCLP Batch ID: NA
Prep Batch ID: E0965-28

Data Entered By: ShayJ | Sampling Date: 8/24/2016 | Cleanup Batch ID:
Peer Reviewed By: WaiteD | Analysis Date: 8/30/2016 | Analysis Batch ID: 160825 8300 ARG 2194

Parameter	CAS Nbr	DF	Result	Flag	LOQ	LOD	Test Units	Project Limits
Antimony	7440-36-0	1.0	0.569		0.200	0.100	mg/L	1.15 mg/L TCLP
Arsenic	7440-38-2	1.0	0.352		0.300	0.300	mg/L	5.0 mg/L TCLP
Barium	7440-39-3	1.0	0.245		0.100	0.010	mg/L	21 mg/L TCLP
Beryllium	7440-41-7	1.0	ND		0.200	0.200	mg/L	1.22 mg/L TCLP
Cadmium	7440-43-9	1.0	4.19		0.100	0.030	mg/L	0.11 mg/L TCLP
Chromium	7440-47-3	1.0	ND		0.100	0.050	mg/L	0.60 mg/L TCLP
Lead	7439-92-1	1.0	0.275		0.100	0.100	mg/L	0.75 mg/L TCLP
Nickel	7440-02-0	1.0	0.298		0.100	0.100	mg/L	11 mg/L TCLP
Selenium	7782-49-2	1.0	0.375	J	0.500	0.250	mg/L	5.7 mg/L TCLP
Silver	7440-22-4	1.0	0.130		0.100	0.100	mg/L	0.14 mg/L TCLP
Thallium	7740-28-0	1.0	ND		0.200	0.100	mg/L	0.20 mg/L TCLP
Vanadium	7440-62-2	1.0	ND		0.100	0.100	mg/L	1.6 mg/L TCLP
Zinc	7440-66-6	1.0	75.1		1.100	0.550	mg/L	4.3 mg/L TCLP

QC Issues

The selenium concentration is reported with a "J" flag, because, this value is between the LOD and the LOQ. *3005*

There was a low matrix spike recovery for beryllium. The LCS recovery and the MS/MSD RPD result, for beryllium, were within acceptance limits. This indicates that the analytical process was in control and that the low matrix spike recovery is a product of matrix interference. Upon review of the emission spectra, it was discovered that there was an interfering wavelength, causing one of the background points to be erroneously high, resulting in low intensity measurement corrections. The background point was adjusted and the sample set was reprocessed, resulting in matrix spike data that is within acceptance limits.

Batch QC Smp: KE1679492

Projects differ from one another in their requirments. The client must ensure that all analytes needed are present and that the reporting limits are appropiate for the data's use
Project Limits are provided as a best-faith effort courtesy. The Client is solely responsible for ensuring that these limits are correct for their project.

** END OF TEST GROUP **

LABORATORY SUMMARY REPORT for Daily HSWA

Client: Clean Harbors
11600 North Aplus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1608019
Sample Date 8/18/2016
HSWA Date 8/17/2016

Sample Fraction 01
Sample Fraction ID SL160817S01-S18

	Result	Units	Report Limit	Analyst	Analysis Date
PCB				RC	8/18/2016
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2		
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	**mg/Kg**	0.4		
TCMX (surrogate)	100%				
DCB (surrogate)	145%				

LIMS ID 1608019
Sample Date 8/18/2016

Sample Fraction 02
Sample Fraction ID RD160816S06-160817S05

	Result	Units	Report Limit	Analyst	Analysis Date
PCB					
A-1016/1242 3550B/8082A	ND	mg/Kg	0.2	RC	8/18/2016
A-1248 3550B/8280A	ND	mg/Kg	0.2		
A-1254 3550B/8280A	ND	mg/Kg	0.2		
A-1260 3550B/8280A	ND	mg/Kg	0.2		
A-1268 3550B/8280A	ND	mg/Kg	0.2		
Total PCB Aroclor	**ND**	**mg/Kg**	0.4		
TCMX (surrogate)	130%				
DCB (surrogate)	145%				

LIMS ID 1608019
Sample Date 8/18/2016

Sample Fraction 03
Sample Fraction ID RD160816S06-160817S05

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	178.0	mg/Kg	0.06	gl	8/18/2016

Treatment Variance Waste Material Profile Sheet AGGM912669HIHGB

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. AGGM912669HIHGB

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #	*UTD981552177*	GENERATOR NAME.	*Clean Harbors Aragonite LLC*				
GENERATOR CODE (Assigned by Clean Harbors)	*AG*	CITY	*Grantsville*	STATE/PROVINCE	*UT*	ZIP/POSTAL CODE	*84029*
ADDRESS	*11600 North Aptus Road*			PHONE:			
CUSTOMER CODE (Assigned by Clean Harbors)	*AG*	CUSTOMER NAME	*Clean Harbors Aragonite LLC*				
ADDRESS	*11600 North Aptus Road*	CITY	*Grantsville*	STATE/PROVINCE	*UT*	ZIP/POSTAL CODE	*84029*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *48288 BAGHOUSE DUST HIGH MERCURY - BULK SHIPMENT*

PROCESS GENERATING WASTE: **AIR POLLUTION CONTROL**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g Molasses)
- > 10,000

COLOR

varies

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6 9
- [x] 7 (Neutral)
- 7.1 - 12 4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g Ethanol)
- 1.0 (e g. Water)
- 1.0-1 2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0 1
- 0.1 - 1 0
- 1 1 - 5 0
- 5 1 - 20 0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23 2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
ALUMINUM OXIDE (AL2O3) (9CI)		--		Trace
ANTIMONY OXIDE		--		Trace
ARSENIC OXIDE (AS2O3)		--		Trace
BAG HOUSE DUST	95.0000000	--	100.0000000	%
BARIUM OXIDE		--		Trace
BENZYL CHLORIDE		--		Trace
BERYLLIUM OXIDE		--		Trace
CADMIUM OXIDE		--		Trace
CARBON TETRACHLORIDE		--		Trace
CHLOROFORM		--		Trace

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX , METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING, ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE *G09* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE *W304*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5 0	*1 7000*	*0.0000000*	*PPM*	
D005	BARIUM	100.0	*1.1800*	*0.0000000*	*PPM*	
D006	CADMIUM	1 0	*10.0000*	*0.0000000*	*PPM*	
D007	CHROMIUM	5 0	*0.3900*	*0.0000000*	*PPM*	
D008	LEAD	5 0	*11.0000*	*0.0000000*	*PPM*	
D009	MERCURY	0.2	*7 5000*	*586.0000000*	*PPM*	
D010	SELENIUM	1 0	*1.5000*	*0.0000000*	*PPM*	
D011	SILVER	5 0	*0.2100*	*0.0000000*	*PPM*	

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100 0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200 0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0 5
D043	VINYL CHLORIDE	0 2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200 0
D024	m-CRESOL	200.0
D025	p-CRESOL	200 0
D026	CRESOL (TOTAL)	200 0
D027	1,4-DICHLOROBENZENE	7 5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100 0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400 0
D042	2,4,6-TRICHLOROPHENOL	2 0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10 0
D017	2,4,5-TP (SILVEX)	1 0
D020	CHLORDANE	0 03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0 008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

[x] YES [ ] NO USEPA HAZARDOUS WASTE?

D004 D005 D006 D007 D008 D009 D010 D011 F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019

[ ] YES [x] NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

[ ] YES [x] NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

[x] YES [ ] NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY VARIANCE INFO. ***Partially meets LDR standards***

[ ] YES [x] NO IS THIS A UNIVERSAL WASTE?

[ ] YES [ ] NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

[ ] YES [ ] NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261 2 (C)(2)(II))?

[ ] YES [x] NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

[ ] YES [x] NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

[ ] YES [x] NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

[ ] YES [ ] NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

[ ] YES [x] NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11 2 PSIA)?

[ ] YES [x] NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

[ ] YES [x] NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

[ ] YES [x] NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO *Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?*

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME

NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (BAGHOUSE), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY [x] MONTHLY QUARTERLY YEARLY OTHER ***Other***

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY

CONTAINER TYPE

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX DRUM

OTHER

DRUM SIZE

BULK LIQUID

GALLONS/SHIPMENT. ***0 Min -0 Max*** GAL.

[x] **BULK SOLID**

SHIPMENT UOM [x] TON YARD

TONS/YARDS/SHIPMENT ***15.00 Min - 18.00 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
	Tyler Lee	Compliance Manager, Clean Harbors Aragonite, LLC	5/24/17

Addendum

D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
CHROMIUM OXIDE		--		Trace
COPPER COMPOUNDS		--		Trace
FE O.		--		Trace
FIBERGLASS BAGS	0.0000000	--	5.00000	%
LEAD COMPOUNDS		--		Trace
MERCURY	260.00000	--	586.0000	PPM
MERCURY OXIDE		--		Trace
MIBK		--		Trace
NICKEL OXIDE		--		Trace
SELENIUM OXIDE		--		Trace
SI O2.		--		Trace
SILVER COMPOUNDS		--		Trace
SODIUM CHLORIDE		--		Trace
TETRACHLOROETHENE		--		Trace
THALLIUM OXIDE (TH2O3)		--		Trace
TRICHLOROETHENE		--		Trace
VANADIUM OXIDE		--		Trace
ZINC OXIDE (ZNO)		--		Trace
ZINC OXIDE (ZNO).		--		Trace

F. REGULATORY STATUS

USEPA HAZARDOUS WASTE?

F024 F025 F032 F034 F035 F037 F038 F039 K001 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K046 K048 K049 K050 K051 K052 K060 K061 K062 K069 K071 K073 K083 K084 K085 K086 K087 K093 K094 K095 K096 K097 K098 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K136 K156 K169 K170 K171 K172 P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028 P029 P030 P031 P033 P034 P036 P037 P038 P039 P040 P041 P042 P043 P044 P045 P046 P047 P048 P049 P050 P051 P054 P056 P057 P058 P059 P060 P062 P063 P064 P066 P067 P068 P069 P070 P071 P072 P073 P074 P075 P077 P082 P084 P085 P087 P088 P089 P092 P093 P094 P095 P096 P097 P098 P099 P101 P102 P103 P104 P105 P106 P108 P109 P110 P111 P113 P114 P115 P116 P118 P119 P120 P121 P122 P123 P185 P188 P189 P191 P192 P197 U001 U002 U003 U004 U005 U006 U007 U008 U009 U010 U011 U012 U014 U015 U016 U017 U018 U019 U020 U021 U022 U024 U025 U026 U027 U028 U029 U030 U031 U032 U034 U035 U036 U037 U038 U039 U041 U042 U043 U044 U045 U046 U047 U048 U049 U050 U051 U052 U053 U055 U056 U057 U058 U059 U060 U061 U062 U063 U064 U066 U067 U068 U069 U070 U071 U072 U073 U074 U075 U076 U077 U078 U079 U080 U081 U082 U083 U084 U085 U086 U087 U088 U089 U090 U091 U092 U093 U094 U095 U097 U098 U099 U101 U102 U103 U105 U106 U107 U108 U109 U110 U111 U112 U113 U114 U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132 U134 U135 U136 U137 U138 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U152 U153 U154 U155 U156 U157 U158 U159 U161 U162 U163 U164 U165 U166 U167 U168 U169 U170 U171 U172 U173 U174 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188 U190 U191 U192 U193 U194 U196 U197 U200 U201 U203 U204 U205 U206 U207 U208 U209 U210 U211 U213 U214 U215 U216 U217 U218 U219 U220 U221 U222 U223 U225 U226 U227 U228 U235 U236 U237 U238 U239 U240 U243 U244 U246 U247 U248 U249 U328 U353 U359 U364 U367 U394 U395 U404

G. DOT/TDG INFORMATION

Laboratory Summary Report for Raw Waste Sample Analysis

LABORATORY SUMMARY REPORT

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID 1705132

Sample Fraction 10

Sample Date 10/17/2016

Sample Fraction ID A287777-4

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**590.0**	mg/Kg	0.06	cre	5/19/2017

LABORATORY SUMMARY REPORT

Client: Clean Harbors
11600 North Aptus Road
Aragonite, UT 84029

David Lunt
Lab Manager

LIMS ID **1705132**

Sample Fraction 07

Sample Date 9/24/2016

Sample Fraction ID **A287777-1**

	Result	Units	Report Limit	Analyst	Analysis Date
Metals					
Mercury 7471A	**590.0**	mg/Kg	0.06	cre	5/19/2017

Analytical Reports, Reviews and Chain of Custody for Treatability Study

Grassy Mountain Facility
Sampling Log - Incoming Loads

Book Number. **5187**
Page Number:_____

ate of Collection: 26-May-17

Waste Stream: AGGM912669HIHGB

Sampler Initials

Sampled Load or Item: *(sample ID)* 1) SW

Associated Loads or Items:	Sampler Initials		Sampler Initials
2		7	
3		8	
4		9	
5		10	
6			

Sampling Information

Test For

FP - HOC - CN - S - Pest - PCB - SV - VOA - Metals

Volume of Sample Taken:

Sampling Method: Composite - **Grab**

Other tests

ype of Container Sampled: DM - DT - ED - **G** - TT - CY Box - Rail G - Other

Depth of Sample: Top 1/4 1/2 3/4 Bottom

Sampling Point

Bulk Loads	Tanks, and Piles	Other (Free Hanc
(top view of containers)	*(top view of containers)*	**Front**
Front		**Box # A287777**
Box # CHIU255085		1 4
1 4		2 5
2 5		3 6
3 6		
back		

Comments 6 Samples taken from each box in 16oz Jar.

Sample Numbering = Box number - Sample location - % Reagent (CPS) used. Example; A287777-01-1

American West
ANALYTICAL LABORATORIES

Steve Wood
Clean Harbors - Grassy Mountain, LLC
PO Box 22750
Salt Lake City, UT 84122
TEL: (435) 844-8978

Dear Steve Wood: Lab Set ID: 1705605

3440 South 700 West
Salt Lake City, UT 84119

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

American West Analytical Laboratories received sample(s) on 5/26/2017 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

The sample receipt temperature exceeded the recommended USEPA limits for some analyses.

Thank You,

Approved by: Jose G. Rocha

Digitally signed by Jose G Rocha
DN cn=Jose G Rocha, o=American West Analytical Laboratories, ou, email=jose@awal-labs com, c=US
Date 2017 06 01 14 23 56 -06'00'

Laboratory Director or designee

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-001
Client Sample ID: A287777-01-1
Collection Date: 5/26/2017 800h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 928h	SW7470A	0.0100	< 0.0100	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-002
Client Sample ID: A287777-01-2
Collection Date: 5/26/2017 800h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: / Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 937h	SW7470A	0.0100	< 0.0100	

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-003
Client Sample ID: A287777-01-4
Collection Date: 5/26/2017 800h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 939h	SW7470A	0.0100	< 0.0100	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-004
Client Sample ID: A287777-01-6
Collection Date: 5/26/2017 800h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 941h	SW7470A	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-005
Client Sample ID: A287777-01-8
Collection Date: 5/26/2017 800h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 942h	SW7470A	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-006
Client Sample ID: A287777-04-1
Collection Date: 5/26/2017 900h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 944h	SW7470A	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-007
Client Sample ID: A287777-04-2
Collection Date: 5/26/2017 900h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 946h	SW7470A	0.0100	< 0.0100	

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Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-008
Client Sample ID: A287777-04-4
Collection Date: 5/26/2017 900h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 951h	SW7470A	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-009
Client Sample ID: A287777-04-6
Collection Date: 5/26/2017 900h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 953h	SW7470A	0.0100	< 0.0100	

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Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Clean Harbors - Grassy Mountain, LLC **Contact:** Steve Wood
Project:
Lab Sample ID: 1705605-010
Client Sample ID: A287777-04-8
Collection Date: 5/26/2017 900h
Received Date: 5/26/2017 1504h

Analytical Results TCLP METALS Method 1311

TCLP Prep Date: Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Mercury	mg/L	5/31/2017 1330h	6/1/2017 955h	SW7470A	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

American West Analytical Laboratories

3 Day Rush

Rpt Emailed: D

WORK ORDER Summary

Work Order: **1705605**

Client: Clean Harbors - Grassy Mountain, LLC
Due Date: 6/1/2017

Client ID: CLE100 **Contact:** Steve Wood

Project: **QC Level:** I **WO Type:** Standard

Comments: 3 day rush.;

JT

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1705605-001A	A287777-01-1	5/26/2017 0800h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-002A	A287777-01-2	5/26/2017 0800h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-003A	A287777-01-4	5/26/2017 0800h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-004A	A287777-01-6	5/26/2017 0800h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-005A	A287777-01-8	5/26/2017 0800h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-006A	A287777-04-1	5/26/2017 0900h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-007A	A287777-04-2	5/26/2017 0900h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-008A	A287777-04-4	5/26/2017 0900h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	
1705605-009A	A287777-04-6	5/26/2017 0900h	5/26/2017 1504h	1311LM-PR	Soil		TCLP	1

Printed 5/30/2017 FOR LABORATORY USE ONLY [fill out on page 1]. %M ☐ RT ☐ CN ☐ TAT ☐ QC ☐ HOK ✓ HOK_____ HOK_____ COC Emailed_____

WORK ORDER Summary

Work Order: **1705605**

Client: Clean Harbors - Grassy Mountain, LLC

Due Date: 6/1/2017

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1705605-009A	**A287777-04-6**	5/26/2017 0900h	5/26/2017 1504h	**HG-TCLP-7470A**	Soil		TCLP	1
				HG-TCLP-PR			TCLP	
1705605-010A	**A287777-04-8**	5/26/2017 0900h	5/26/2017 1504h	**1311LM-PR**	Soil		TCLP	1
				HG-TCLP-7470A			TCLP	
				HG-TCLP-PR			TCLP	

CleanHarbors
ENVIRONMENTAL SERVICES, INC.

Facility Sample Tracking Record

Clean Harbors Grassy Mountain, LLC.

1705605

Profile Number	Drum Number	No. of Jars	Date Sampled	PCB's	CN	SETA	TCLP Hg	OTHER (SPECIFY)
A287777-01-1		1	5-26-17 0800				X	Please Rush 3 day
A287777-01-2		1					X	due 6/1/17
A287777-01-4		1					X	
A287777-01-6		1					X	
A287777-01-8		1					X	
A287777-04-1		1	5-26-17 0900				X	
A287777-04-2		1					X	
287777-04-4		1					X	
A287777-04-6		1					X	
A287777-04-8		1					X	

COMMENTS

Please analyze all samples for TCLP Mercury only

9.1

Relinquished

	By	Date	Time	To
☑ Ck box if Sampler				
Signature	[signature]	5/26/17	12:30	
Print	Steve Wood			
Signature	[signature]	5/26/17	1524	Valla
Print	Steve Wood			Valerie Norman-Swarr
Signature				
Print				

Clean Harbors
ENVIRONMENTAL SERVICES, INC.

Facility Sample Tracking Record

Clean Harbors Grassy Mountain, LLC.

Profile Number	Drum Number	No. of Jars	Date Sampled	PCB's	CN	SETA	Total Hg	OTHER (SPECIFY)
CHIU255085-1		1	5/16/17				X	
CHIU255085-2		1	5/16/17				X	
CHIU255085-3		1	5/16/17				X	
CHIU255085-4		1	5/16/17				X	
CHIU255085-5		1	5/16/17				X	
CHIU255085-6		1	5/16/17				X	
AZ87777-1		1	5/16/17				X	
AZ87777-2		1	5/16/17				X	
AZ87777-3		1	5/16/17				X	
AZ87777-4		1	5/16/17				X	
AZ87777-5		1	5/16/17				X	
AZ87777-6		1	5/16/17				X	

COMMENTS

Please analyze all samples for Total Hg only.

Relinquished By	Date	Time	To
☐ Ck box if Sampler Signature: Steve Wood Print: Steve Wood	5/16/17	15:00	Signature: Lacey Englund Print: Lacey Englund
Signature: Print:	5-17-17	14:15 15:40	Signature: Heidi Stoker Print: Heidi Stoker
Signature: Print:			

Lab Set ID. 1705605

Samples Were:	COC Tape Was:	Container Type:	No. Rec.
☐ Shipped By:	**Present on Outer Package**	☐ AWAL Supplied Plastic	
☒ Hand Delivered	☐ Yes ☐ No ☒ N/A	☐ AWAL Supplied Clear Glass	
☐ Ambient	**Unbroken on Outer package**	☐ AWAL Supplied Amber Glass	
☒ Chilled	☐ Yes ☐ No ☒ N/A	☐ AWAL Supplied VOA/TOC/TOX Vials	
Temperature 9.1 °C	**Present on Sample**	☐ Amber ☐ Clear ☐ Headspace ☐ No Headspace	
Rec. Broken/Leaking ☐ Yes ☒ No ☐ N/A	☐ Yes ☐ No ☒ N/A	☐ Non AWAL Supplied Container	
Notes:	**Unbroken on Sample**	**Notes:**	
	☐ Yes ☐ No ☒ N/A		
Properly Preserved ☒ Yes ☐ No ☐ N/A	**Notes:**		
Notes:			
Rec. Within Hold ☒ Yes ☐ No		**Discrepancies Between Labels and COC** ☐ Yes ☒ No	
Notes:		**Notes:**	

VNS 5/26/17

Bottle Type	Preservative	All pHs OK														
ammonia	pH <2 H_2SO_4															
OD	pH <2 H_2SO_4															
Cyanide	PH >12 NaOH															
Metals	pH <2 HNO_3															
NO_2 & NO_3	pH <2 H_2SO_4															
Nutrients	pH <2 H_2SO_4															
O & G	pH <2 HCL															
Phenols	pH <2 H_2SO_4															
Sulfide	pH > 9NaOH, ZnAC															
TKN	pH <2 H_2SO_4															
TOC	pH <2 H_3PO_4															
T PO_4	pH <2 H_2SO_4															
TPH	pH <2 HCL															

VNS 5/26/17

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC and notify client for further instructions
6) Place client conversation on COC
7) Samples may be adjusted at client request

Treatability Study Spreadsheets

Treat Study Spread Sheet

Profile # AGGM9126A9HIHGB Date 5/26/17

The amount of sample used for each level is **100g** unless otherwise specified.

Sample ID for each treatment level	% Water / KD	Reagent / % CPS	Reagent / % DTC-40	Reagent / % Enviro-blend	Reagent / %	Reagent/ %	Reagent/ %	Analytical Method TCLP Hg mg/L
AZ87777-04-1	50 / 60	1	2	10				< 0.0100
AZ87777-04-2	50 / 60	2	2	10				< 0.0100
AZ87777-04-4	50 / 60	4	2	10				< 0.0100
AZ87777-04-6	50 / 60	6	2	10				< 0.0100
AZ87777-04-8	50 / 60	8	2	10				< 0.0100
	/							
	/							
	/							
	/							
	/							

Treatment Notes

Box # AZ87777 Sample location 4, Total Mercury = 590 ppm
Delivered Samples to AWAL 5/26/17 Received data 6/1/17
Recipe # BR2669-2 was used as a reference.

Treat Study Spread Sheet

Profile # AGGM912669HIHGB Date 5-26-17

The amount of sample used for each level is **100g** unless otherwise specified.

Sample ID for each treatment level	% Water / KD	Reagent / % CPS	Reagent / % DTC-40	Reagent / % Enviro-blend	Reagent / %	Reagent/ %	Reagent/ %	Analytical Method TCLP Hg mg/L
AZ87777-01-1	50 / 60	1	2	10				<0.0100
AZ87777-01-2	50 / 60	2	2	10				<0.0100
AZ87777-01-4	50 / 60	4	2	10				<0.0100
AZ87777-01-6	50 / 60	6	2	10				<0.0100
AZ87777-01-8	50 / 60	8	2	10				<0.0100
	/							
	/							
	/							
	/							
	/							

Treatment Notes

Box # AZ87777 Sample location 1, Total Mercury = 590 ppm
Delivered sample to ALWAL 5/26/17 Received data 6/1/17
Recipe # BR2669-2 was used as a reference

Treatment Variance Recipe

TREATMENT RECIPE

Recipe ID BR2669-2

Date Estab	Status	Treat Cat	Treat Sub Cat	Tier Option
2/21/2017	Approved			

A	Sb	Ba	Be	Cd	Cr	Pb	Hg	Ni	Se	Ag	Tl	V	Zn	Cn	Org	Other
☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐

Batch Info High Mercury Recipe for GM91-2669

Precautions Make sure the pH is above 9 and the waste is mixed well before adding CPS or DANGEROUS GAS may evolve.

Directions Add DTC, Water and CPS to waste and mix well. Add cement and mix well. Add Enviroblend and mix well.

Comment Special care should be taken when working with concentrated reagents. Proper PPE must be worn during stabiization and treatment operations including full face air purifying respirator, white tyvek, and chemically resistant gloves.

Recipe ID	Order	Reagent Name	Ratio	Unit
BR2669-2	1	FRWAT	0.500	Gallons
BR2669-2	2	DTC40	0.020	Gallons
BR2669-2	3	CPS	0.020	Gallons
BR2669-2	4	KD	0.600	Tons
BR2669-2	5	ENVB1	0 100	Tons

Veolia and Waste Management Non-Acceptable Retort Letters

WM Mercury Waste, Inc.
21211 Durand Avenue
Union Grove, Wisconsin 53182-9711
1.741.3343 or 262.878.2599
262.878.2699 Fax

WASTE MANAGEMENT®

June 14, 2016

Tyler Lee
Compliance Manager
Clean Harbors Aragonite
11600 North Aptus Road
Grantsville, UT 84029-1339
lee.tyler@cleanharbors.com
O: 435-884-8122
C: 801-750-4080

Dear Mr. Lee,

Based upon prior discussions, WM Mercury Waste, Inc. is not able to accept for retort the incineration residues with high mercury concentrations from your Aragonite facility. Based upon the information you have provided regarding the characterization of the waste, we are not permitted to receive the material at our facility. In addition the waste does not meet the criteria for waste materials we are able to accept for retort in 40 CFR 266.100(d).

If you have any questions regarding our acceptance criteria, please feel free to call anytime at 262-878-2599.

Sincerely,

Mike Gilmore
Sr. Manager Operations
WM Mercury Waste, Inc.
mgilmor1@wm.com

cc: Clean Harbors File

VEOLIA
ENVIRONMENTAL SERVICES

TECHNICAL SOLUTIONS
NORTH AMERICA

March 10, 20017

Tyler Lee
Compliance Manager
Clean Harbors Aragonite
11600 North Aptus Road
Grantsville, UT 84029-1339
lee.tyler@cleanharbors.com
O: 435-884-8122
C: 801-750-4080

Dear Mr. Lee,

Based upon our recent conversations, Veolia North America is not able to accept for retort the
incineration residues with high mercury concentrations from your Aragonite facility. Based upon the information you have provided regarding the characterization of the waste, we are not permitted to receive the material at our facility. In addition the waste does not meet the criteria for waste materials we are able to accept for retort in 40CFR 266.100(d).

If you have any questions regarding our acceptance criteria, please feel free to call anytime at 602-233-6885

Sincerely,

Tim Bechard 3-16-17

Veolia ES Technical Solutions, L.L.C.
1275 Mineral Springs, Drive, Port Washington, WI 53074
tel: 262 243 8900 - fax: 262 284 3775
www.VeoliaES.com