

Wickham, Jerry, Env. Health

From: Wickham, Jerry, Env. Health
Sent: Monday, April 14, 2014 9:07 AM
To: Tilotta, Vincent
Cc: Green, James
Subject: Re: Request for approval for imported backfill material at Hanson

Vince,

Based on the analytical results presented, the material described as "select sand" appears to be acceptable for use as imported backfill at the site. If other conditions not apparent at this time are detected are observed at a later date, the use of the material may be reviewed again at that time.

Regards,
Jerry Wickham
Alameda County Environmental Health

Sent from my iPad

> On Apr 14, 2014, at 8:40 AM, "Tilotta, Vincent" <VTilotta@haleyaldrich.com> wrote:

>

> Hello Jerry,

>

> We are ready to backfill some excavations on the Former Hanson Aggregates Radum Facility in Pleasanton, and request that you approve the material we intend to import and use as backfill. The material is "select sand", which will be imported from Vulcan Materials on the adjacent property. Attached to this email you will find the lab results from samples of the intended backfill material that we collected and tested last year. I also included the answers to questions you previously posed when we were seeking approval for onsite reuse of soil stockpiles.

>

>

> 1) The location and volume of the stockpiles and volume that each sample represents to assure compliance with the proposed sample to soil volume ratios.

>

>

>

> The stockpile of this material is located in the Vulcan Materials processing area on the adjacent property. The stockpile is active, and therefore has a variable volume. Because the volume of the stockpile is rather large, a total of 11 4-point composite samples were collected.

>

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> 2) Distribution of samples within the stockpile (depth, etc.)

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> Samples were collected on all sides of the stockpile at various heights, however all samples were collected from the surface of the stockpile because it was impossible to access any deeper.

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> 3) The source of the fill material.
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> The fill material is crushed rock that has been processed and washed several
times before being stockpiled.
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>
> 4) The type of fill and the heterogeneity
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> The material is extremely homogeneous. It consists of finely crushed rock
material.
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>
> 5) Whether the fill contains any debris or construction material
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>
> There is no debris or construction material in the stockpile.
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>
> 6) Laboratory analytical results consistent with the analytical suite from the attached set
of emails.
>
>
> Samples were run for the agreed upon analytes: TPH-d/mo, CAM17 metals, PAHs,
and asbestos (as bulk PLM). Please see the attachment for original laboratory analytical
reports.
>
> Please let me know if you need anything else.
>
> -Vince
>
> Vincent P. Tilotta, E.I.T.
> Staff Engineer
> HALEY & ALDRICH
> 2033 North Main Street, Suite 309
> Walnut Creek, CA 94596
> phone: 925.949.4403
> cell: 925.708.3696
> Fax: 925.979.1456
> VTilotta@HaleyAldrich.com<mailto:VTilotta@HaleyAldrich.com>
> www.HaleyAldrich.com
>
> <J52037-1 UDS Level 2 Report Final Report.pdf>

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

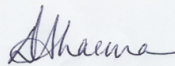
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-52037-1
Client Project/Site: Hansen

For:
Haley & Aldrich, Inc.
2033 North Main Street
Suite 309
Walnut Creek, California 94596

Attn: Kristin Guthrie



Authorized for release by:
9/9/2013 3:57:30 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Job ID: 720-52037-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-52037-1

Comments

No additional comments.

Receipt

The samples were received on 8/30/2013 3:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

GC/MS Semi VOA

No analytical or quality issues were noted.

GC Semi VOA

No analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-1

Lab Sample ID: 720-52037-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	80		2.0		mg/Kg	4		6010B	Total/NA
Chromium	29		2.0		mg/Kg	4		6010B	Total/NA
Cobalt	5.0		0.78		mg/Kg	4		6010B	Total/NA
Copper	15		5.9		mg/Kg	4		6010B	Total/NA
Lead	2.8		2.0		mg/Kg	4		6010B	Total/NA
Nickel	54		2.0		mg/Kg	4		6010B	Total/NA
Vanadium	17		2.0		mg/Kg	4		6010B	Total/NA
Zinc	27		5.9		mg/Kg	4		6010B	Total/NA
Mercury	0.031		0.0088		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-2

Lab Sample ID: 720-52037-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	77		1.9		mg/Kg	4		6010B	Total/NA
Chromium	30		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	5.1		0.75		mg/Kg	4		6010B	Total/NA
Copper	15		5.7		mg/Kg	4		6010B	Total/NA
Lead	3.0		1.9		mg/Kg	4		6010B	Total/NA
Nickel	56		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	16		1.9		mg/Kg	4		6010B	Total/NA
Zinc	29		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.029		0.0088		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-3

Lab Sample ID: 720-52037-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	100		1.8		mg/Kg	4		6010B	Total/NA
Chromium	40		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	8.6		0.73		mg/Kg	4		6010B	Total/NA
Copper	19		5.5		mg/Kg	4		6010B	Total/NA
Lead	4.2		1.8		mg/Kg	4		6010B	Total/NA
Nickel	60		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	22		1.8		mg/Kg	4		6010B	Total/NA
Zinc	36		5.5		mg/Kg	4		6010B	Total/NA
Mercury	0.027		0.0083		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-4

Lab Sample ID: 720-52037-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	140		1.8		mg/Kg	4		6010B	Total/NA
Chromium	50		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	7.6		0.73		mg/Kg	4		6010B	Total/NA
Copper	21		5.5		mg/Kg	4		6010B	Total/NA
Lead	4.1		1.8		mg/Kg	4		6010B	Total/NA
Nickel	77		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	26		1.8		mg/Kg	4		6010B	Total/NA
Zinc	38		5.5		mg/Kg	4		6010B	Total/NA
Mercury	0.021		0.0085		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-5

Lab Sample ID: 720-52037-25

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-5 (Continued)

Lab Sample ID: 720-52037-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	110		1.9		mg/Kg	4		6010B	Total/NA
Chromium	34		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	6.3		0.74		mg/Kg	4		6010B	Total/NA
Copper	20		5.6		mg/Kg	4		6010B	Total/NA
Lead	3.2		1.9		mg/Kg	4		6010B	Total/NA
Nickel	55		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	24		1.9		mg/Kg	4		6010B	Total/NA
Zinc	33		5.6		mg/Kg	4		6010B	Total/NA
Mercury	0.021		0.0085		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-6

Lab Sample ID: 720-52037-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130		1.9		mg/Kg	4		6010B	Total/NA
Chromium	84		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	5.6		0.74		mg/Kg	4		6010B	Total/NA
Copper	20		5.6		mg/Kg	4		6010B	Total/NA
Lead	3.4		1.9		mg/Kg	4		6010B	Total/NA
Nickel	56		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	22		1.9		mg/Kg	4		6010B	Total/NA
Zinc	29		5.6		mg/Kg	4		6010B	Total/NA
Mercury	0.018		0.0087		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-7

Lab Sample ID: 720-52037-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130		1.9		mg/Kg	4		6010B	Total/NA
Chromium	45		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	9.1		0.75		mg/Kg	4		6010B	Total/NA
Copper	24		5.7		mg/Kg	4		6010B	Total/NA
Lead	4.3		1.9		mg/Kg	4		6010B	Total/NA
Nickel	73		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	27		1.9		mg/Kg	4		6010B	Total/NA
Zinc	42		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.020		0.0083		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-8

Lab Sample ID: 720-52037-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	89		1.9		mg/Kg	4		6010B	Total/NA
Chromium	39		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	6.4		0.78		mg/Kg	4		6010B	Total/NA
Copper	16		5.8		mg/Kg	4		6010B	Total/NA
Lead	3.0		1.9		mg/Kg	4		6010B	Total/NA
Nickel	64		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	20		1.9		mg/Kg	4		6010B	Total/NA
Zinc	32		5.8		mg/Kg	4		6010B	Total/NA
Mercury	0.011		0.0095		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-9

Lab Sample ID: 720-52037-45

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-9 (Continued)

Lab Sample ID: 720-52037-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	84		1.9		mg/Kg	4		6010B	Total/NA
Chromium	37		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	6.2		0.74		mg/Kg	4		6010B	Total/NA
Copper	19		5.6		mg/Kg	4		6010B	Total/NA
Lead	3.2		1.9		mg/Kg	4		6010B	Total/NA
Nickel	58		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	21		1.9		mg/Kg	4		6010B	Total/NA
Zinc	31		5.6		mg/Kg	4		6010B	Total/NA
Mercury	0.016		0.0085		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-10

Lab Sample ID: 720-52037-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	86		1.8		mg/Kg	4		6010B	Total/NA
Chromium	41		1.8		mg/Kg	4		6010B	Total/NA
Cobalt	6.3		0.73		mg/Kg	4		6010B	Total/NA
Copper	19		5.5		mg/Kg	4		6010B	Total/NA
Lead	3.7		1.8		mg/Kg	4		6010B	Total/NA
Nickel	52		1.8		mg/Kg	4		6010B	Total/NA
Vanadium	18		1.8		mg/Kg	4		6010B	Total/NA
Zinc	27		5.5		mg/Kg	4		6010B	Total/NA
Mercury	0.014		0.0087		mg/Kg	1		7471A	Total/NA

Client Sample ID: VULCAN-11

Lab Sample ID: 720-52037-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.0		0.98		mg/Kg	1		8015B	Total/NA
Barium	130		1.9		mg/Kg	4		6010B	Total/NA
Chromium	30		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	5.4		0.75		mg/Kg	4		6010B	Total/NA
Copper	17		5.6		mg/Kg	4		6010B	Total/NA
Lead	3.0		1.9		mg/Kg	4		6010B	Total/NA
Nickel	50		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	20		1.9		mg/Kg	4		6010B	Total/NA
Zinc	33		5.6		mg/Kg	4		6010B	Total/NA
Mercury	0.011		0.0085		mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-1

Lab Sample ID: 720-52037-5

Date Collected: 08/30/13 11:42

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 11:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		33 - 120				09/05/13 10:56	09/06/13 11:47	1
Terphenyl-d14	97		35 - 146				09/05/13 10:56	09/06/13 11:47	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 14:36	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		09/04/13 14:29	09/05/13 14:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	110		40 - 130				09/04/13 14:29	09/05/13 14:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Arsenic	ND		3.9		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Barium	80		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Beryllium	ND		0.39		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Cadmium	ND		0.49		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Chromium	29		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Cobalt	5.0		0.78		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Copper	15		5.9		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Lead	2.8		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Molybdenum	ND		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Nickel	54		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Selenium	ND		3.9		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Silver	ND		0.98		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Thallium	ND		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Vanadium	17		2.0		mg/Kg		08/31/13 09:36	09/03/13 17:30	4
Zinc	27		5.9		mg/Kg		08/31/13 09:36	09/03/13 17:30	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-1

Lab Sample ID: 720-52037-5

Date Collected: 08/30/13 11:42

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.0088		mg/Kg		08/31/13 10:42	09/04/13 17:06	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-2

Lab Sample ID: 720-52037-10

Date Collected: 08/30/13 11:44

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		33 - 120				09/05/13 10:56	09/06/13 12:49	1
Terphenyl-d14	98		35 - 146				09/05/13 10:56	09/06/13 12:49	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.98		mg/Kg		09/04/13 14:29	09/05/13 15:06	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	108		40 - 130				09/04/13 14:29	09/05/13 15:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Arsenic	ND		3.8		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Barium	77		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Beryllium	ND		0.38		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Cadmium	ND		0.47		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Chromium	30		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Cobalt	5.1		0.75		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Copper	15		5.7		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Lead	3.0		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Nickel	56		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Selenium	ND		3.8		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Silver	ND		0.94		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Vanadium	16		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:34	4
Zinc	29		5.7		mg/Kg		08/31/13 09:36	09/03/13 17:34	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-2

Lab Sample ID: 720-52037-10

Date Collected: 08/30/13 11:44

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.0088		mg/Kg		08/31/13 10:42	09/04/13 17:14	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-3

Lab Sample ID: 720-52037-15

Date Collected: 08/30/13 11:46

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		33 - 120				09/05/13 10:56	09/06/13 13:09	1
Terphenyl-d14	111		35 - 146				09/05/13 10:56	09/06/13 13:09	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 15:35	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 15:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	107		40 - 130				09/04/13 14:29	09/05/13 15:35	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Arsenic	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Barium	100		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Beryllium	ND		0.36		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Cadmium	ND		0.45		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Chromium	40		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Cobalt	8.6		0.73		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Copper	19		5.5		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Lead	4.2		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Molybdenum	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Nickel	60		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Selenium	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Silver	ND		0.91		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Thallium	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Vanadium	22		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:39	4
Zinc	36		5.5		mg/Kg		08/31/13 09:36	09/03/13 17:39	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-3

Lab Sample ID: 720-52037-15

Date Collected: 08/30/13 11:46

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.0083		mg/Kg		08/31/13 10:42	09/04/13 17:17	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-4

Lab Sample ID: 720-52037-20

Date Collected: 08/30/13 11:48

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 13:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		33 - 120				09/05/13 10:56	09/06/13 13:30	1
Terphenyl-d14	100		35 - 146				09/05/13 10:56	09/06/13 13:30	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 16:04	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	106		40 - 130				09/04/13 14:29	09/05/13 16:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Arsenic	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Barium	140		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Beryllium	ND		0.36		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Cadmium	ND		0.45		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Chromium	50		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Cobalt	7.6		0.73		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Copper	21		5.5		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Lead	4.1		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Molybdenum	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Nickel	77		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Selenium	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Silver	ND		0.91		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Thallium	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Vanadium	26		1.8		mg/Kg		08/31/13 09:36	09/03/13 17:51	4
Zinc	38		5.5		mg/Kg		08/31/13 09:36	09/03/13 17:51	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-4

Lab Sample ID: 720-52037-20

Date Collected: 08/30/13 11:48

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.0085		mg/Kg		08/31/13 10:42	09/04/13 17:20	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-5

Lab Sample ID: 720-52037-25

Date Collected: 08/30/13 11:50

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		33 - 120				09/05/13 10:56	09/06/13 16:14	1
Terphenyl-d14	108		35 - 146				09/05/13 10:56	09/06/13 16:14	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 16:33	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		09/04/13 14:29	09/05/13 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	105		40 - 130				09/04/13 14:29	09/05/13 16:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Arsenic	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Barium	110		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Beryllium	ND		0.37		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Cadmium	ND		0.46		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Chromium	34		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Cobalt	6.3		0.74		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Copper	20		5.6		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Lead	3.2		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Nickel	55		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Selenium	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Silver	ND		0.93		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Vanadium	24		1.9		mg/Kg		08/31/13 09:36	09/03/13 17:56	4
Zinc	33		5.6		mg/Kg		08/31/13 09:36	09/03/13 17:56	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-5

Lab Sample ID: 720-52037-25

Date Collected: 08/30/13 11:50

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.0085		mg/Kg		08/31/13 10:42	09/04/13 17:22	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-6

Lab Sample ID: 720-52037-30

Date Collected: 08/30/13 11:52

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Acenaphthylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Chrysene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Fluorene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Naphthalene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Phenanthrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		33 - 120				09/05/13 10:56	09/06/13 16:35	1
Terphenyl-d14	95		35 - 146				09/05/13 10:56	09/06/13 16:35	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 14:12	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 14:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	104		40 - 130				09/04/13 14:29	09/05/13 14:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Arsenic	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Barium	130		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Beryllium	ND		0.37		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Cadmium	ND		0.46		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Chromium	84		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Cobalt	5.6		0.74		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Copper	20		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Lead	3.4		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Nickel	56		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Selenium	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Silver	ND		0.93		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Vanadium	22		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:00	4
Zinc	29		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:00	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-6

Lab Sample ID: 720-52037-30

Date Collected: 08/30/13 11:52

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.0087		mg/Kg		08/31/13 10:42	09/04/13 17:24	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-7

Lab Sample ID: 720-52037-35

Date Collected: 08/30/13 11:54

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		33 - 120				09/05/13 10:56	09/06/13 14:32	1
Terphenyl-d14	105		35 - 146				09/05/13 10:56	09/06/13 14:32	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 14:37	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		09/04/13 14:29	09/05/13 14:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	100		40 - 130				09/04/13 14:29	09/05/13 14:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Arsenic	ND		3.8		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Barium	130		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Beryllium	ND		0.38		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Cadmium	ND		0.47		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Chromium	45		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Cobalt	9.1		0.75		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Copper	24		5.7		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Lead	4.3		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Nickel	73		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Selenium	ND		3.8		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Silver	ND		0.94		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Vanadium	27		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:04	4
Zinc	42		5.7		mg/Kg		08/31/13 09:36	09/03/13 18:04	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-7

Lab Sample ID: 720-52037-35

Date Collected: 08/30/13 11:54

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.0083		mg/Kg		08/31/13 12:08	09/05/13 19:29	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-8

Lab Sample ID: 720-52037-40

Date Collected: 08/30/13 11:56

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Acenaphthylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Chrysene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Fluorene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Naphthalene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Phenanthrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 14:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		33 - 120				09/05/13 10:56	09/06/13 14:52	1
Terphenyl-d14	97		35 - 146				09/05/13 10:56	09/06/13 14:52	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 15:01	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 15:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	105		40 - 130				09/04/13 14:29	09/05/13 15:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Arsenic	ND		3.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Barium	89		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Beryllium	ND		0.39		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Cadmium	ND		0.49		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Chromium	39		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Cobalt	6.4		0.78		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Copper	16		5.8		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Lead	3.0		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Nickel	64		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Selenium	ND		3.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Silver	ND		0.97		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Vanadium	20		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:08	4
Zinc	32		5.8		mg/Kg		08/31/13 09:36	09/03/13 18:08	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-8

Lab Sample ID: 720-52037-40

Date Collected: 08/30/13 11:56

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011		0.0095		mg/Kg		08/31/13 12:08	09/05/13 19:32	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-9

Lab Sample ID: 720-52037-45

Date Collected: 08/30/13 11:58

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Acenaphthylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Chrysene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Fluorene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Naphthalene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Phenanthrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 15:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		33 - 120				09/05/13 10:56	09/06/13 15:13	1
Terphenyl-d14	100		35 - 146				09/05/13 10:56	09/06/13 15:13	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 15:25	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 15:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	102		40 - 130				09/04/13 14:29	09/05/13 15:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Arsenic	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Barium	84		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Beryllium	ND		0.37		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Cadmium	ND		0.46		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Chromium	37		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Cobalt	6.2		0.74		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Copper	19		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Lead	3.2		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Nickel	58		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Selenium	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Silver	ND		0.93		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Vanadium	21		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:13	4
Zinc	31		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:13	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-9

Lab Sample ID: 720-52037-45

Date Collected: 08/30/13 11:58

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016		0.0085		mg/Kg		08/31/13 12:08	09/05/13 19:34	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-10

Lab Sample ID: 720-52037-50

Date Collected: 08/30/13 12:00

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		33 - 120				09/05/13 10:56	09/06/13 15:33	1
Terphenyl-d14	95		35 - 146				09/05/13 10:56	09/06/13 15:33	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 15:50	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		09/04/13 14:29	09/05/13 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	104		40 - 130				09/04/13 14:29	09/05/13 15:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Arsenic	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Barium	86		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Beryllium	ND		0.36		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Cadmium	ND		0.45		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Chromium	41		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Cobalt	6.3		0.73		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Copper	19		5.5		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Lead	3.7		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Molybdenum	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Nickel	52		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Selenium	ND		3.6		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Silver	ND		0.91		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Thallium	ND		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Vanadium	18		1.8		mg/Kg		08/31/13 09:36	09/03/13 18:17	4
Zinc	27		5.5		mg/Kg		08/31/13 09:36	09/03/13 18:17	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-10

Lab Sample ID: 720-52037-50

Date Collected: 08/30/13 12:00

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014		0.0087		mg/Kg		08/31/13 12:08	09/05/13 19:37	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-11

Lab Sample ID: 720-52037-55

Date Collected: 08/30/13 12:02

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Acenaphthylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Chrysene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Fluoranthene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Fluorene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Naphthalene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Phenanthrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Pyrene	ND		4.9		ug/Kg		09/05/13 10:56	09/06/13 15:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		33 - 120				09/05/13 10:56	09/06/13 15:54	1
Terphenyl-d14	100		35 - 146				09/05/13 10:56	09/06/13 15:54	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.0		0.98		mg/Kg		09/04/13 14:29	09/05/13 14:37	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		09/04/13 14:29	09/05/13 14:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	110		40 - 130				09/04/13 14:29	09/05/13 14:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Arsenic	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Barium	130		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Beryllium	ND		0.37		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Cadmium	ND		0.47		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Chromium	30		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Cobalt	5.4		0.75		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Copper	17		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Lead	3.0		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Molybdenum	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Nickel	50		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Selenium	ND		3.7		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Silver	ND		0.93		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Thallium	ND		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Vanadium	20		1.9		mg/Kg		08/31/13 09:36	09/03/13 18:21	4
Zinc	33		5.6		mg/Kg		08/31/13 09:36	09/03/13 18:21	4

TestAmerica Pleasanton

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-11

Lab Sample ID: 720-52037-55

Date Collected: 08/30/13 12:02

Matrix: Solid

Date Received: 08/30/13 15:32

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011		0.0085		mg/Kg		08/31/13 12:08	09/05/13 19:39	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-143659/1-A

Matrix: Solid

Analysis Batch: 143737

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143659

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Acenaphthylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Chrysene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Fluoranthene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Fluorene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Naphthalene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Phenanthrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1
Pyrene	ND		5.0		ug/Kg		09/05/13 10:56	09/06/13 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		33 - 120	09/05/13 10:56	09/06/13 10:45	1
Terphenyl-d14	94		35 - 146	09/05/13 10:56	09/06/13 10:45	1

Lab Sample ID: LCS 720-143659/2-A

Matrix: Solid

Analysis Batch: 143737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	330	249		ug/Kg		76	49 - 120
Acenaphthylene	330	263		ug/Kg		80	52 - 120
Anthracene	330	299		ug/Kg		91	52 - 120
Benzo[a]anthracene	330	288		ug/Kg		87	52 - 120
Benzo[a]pyrene	330	310		ug/Kg		94	54 - 120
Benzo[b]fluoranthene	330	364		ug/Kg		110	51 - 120
Benzo[g,h,i]perylene	330	298		ug/Kg		90	48 - 120
Benzo[k]fluoranthene	330	323		ug/Kg		98	56 - 120
Chrysene	330	281		ug/Kg		85	40 - 120
Dibenz(a,h)anthracene	330	306		ug/Kg		93	50 - 120
Fluoranthene	330	304		ug/Kg		92	57 - 120
Fluorene	330	271		ug/Kg		82	52 - 120
Indeno[1,2,3-cd]pyrene	330	308		ug/Kg		93	48 - 120
Naphthalene	330	239		ug/Kg		72	46 - 120
Phenanthrene	330	271		ug/Kg		82	48 - 120
Pyrene	330	296		ug/Kg		90	53 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	73		33 - 120
Terphenyl-d14	95		35 - 146

TestAmerica Pleasanton

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: LCSD 720-143659/3-A

Matrix: Solid

Analysis Batch: 143737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Acenaphthene	328	254		ug/Kg		77	49 - 120	2	20	
Acenaphthylene	328	275		ug/Kg		84	52 - 120	4	20	
Anthracene	328	302		ug/Kg		92	52 - 120	1	20	
Benzo[a]anthracene	328	290		ug/Kg		88	52 - 120	1	20	
Benzo[a]pyrene	328	307		ug/Kg		94	54 - 120	1	20	
Benzo[b]fluoranthene	328	371		ug/Kg		113	51 - 120	2	20	
Benzo[g,h,i]perylene	328	295		ug/Kg		90	48 - 120	1	20	
Benzo[k]fluoranthene	328	320		ug/Kg		97	56 - 120	1	20	
Chrysene	328	282		ug/Kg		86	40 - 120	0	20	
Dibenz(a,h)anthracene	328	310		ug/Kg		95	50 - 120	1	20	
Fluoranthene	328	311		ug/Kg		95	57 - 120	2	20	
Fluorene	328	273		ug/Kg		83	52 - 120	1	20	
Indeno[1,2,3-cd]pyrene	328	310		ug/Kg		94	48 - 120	1	20	
Naphthalene	328	245		ug/Kg		75	46 - 120	2	20	
Phenanthrene	328	278		ug/Kg		85	48 - 120	2	20	
Pyrene	328	297		ug/Kg		91	53 - 120	0	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	75		33 - 120
Terphenyl-d14	95		35 - 146

Lab Sample ID: 720-52037-5 MS

Matrix: Solid

Analysis Batch: 143737

Client Sample ID: VULCAN-1

Prep Type: Total/NA

Prep Batch: 143659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	RPD
Acenaphthene	ND		328	259		ug/Kg		79	33 - 120	
Acenaphthylene	ND		328	281		ug/Kg		86	28 - 120	
Anthracene	ND		328	306		ug/Kg		93	36 - 120	
Benzo[a]anthracene	ND		328	297		ug/Kg		91	29 - 120	
Benzo[a]pyrene	ND		328	309		ug/Kg		94	24 - 120	
Benzo[b]fluoranthene	ND		328	345		ug/Kg		105	17 - 132	
Benzo[g,h,i]perylene	ND		328	306		ug/Kg		93	21 - 120	
Benzo[k]fluoranthene	ND		328	341		ug/Kg		104	35 - 120	
Chrysene	ND		328	285		ug/Kg		87	29 - 120	
Dibenz(a,h)anthracene	ND		328	319		ug/Kg		97	36 - 120	
Fluoranthene	ND		328	324		ug/Kg		99	24 - 120	
Fluorene	ND		328	276		ug/Kg		84	35 - 120	
Indeno[1,2,3-cd]pyrene	ND		328	320		ug/Kg		97	20 - 126	
Naphthalene	ND		328	254		ug/Kg		77	32 - 120	
Phenanthrene	ND		328	283		ug/Kg		86	28 - 120	
Pyrene	ND		328	303		ug/Kg		92	24 - 123	

Surrogate	MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	77		33 - 120
Terphenyl-d14	99		35 - 146

TestAmerica Pleasanton

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: 720-52037-5 MSD

Matrix: Solid

Analysis Batch: 143737

Client Sample ID: VULCAN-1

Prep Type: Total/NA

Prep Batch: 143659

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Acenaphthene	ND		330	245		ug/Kg		74	33 - 120	6	20
Acenaphthylene	ND		330	271		ug/Kg		82	28 - 120	4	20
Anthracene	ND		330	301		ug/Kg		91	36 - 120	2	20
Benzo[a]anthracene	ND		330	289		ug/Kg		88	29 - 120	3	20
Benzo[a]pyrene	ND		330	305		ug/Kg		92	24 - 120	1	20
Benzo[b]fluoranthene	ND		330	370		ug/Kg		112	17 - 132	7	20
Benzo[g,h,i]perylene	ND		330	296		ug/Kg		90	21 - 120	3	20
Benzo[k]fluoranthene	ND		330	309		ug/Kg		93	35 - 120	10	20
Chrysene	ND		330	279		ug/Kg		84	29 - 120	2	20
Dibenz(a,h)anthracene	ND		330	310		ug/Kg		94	36 - 120	3	20
Fluoranthene	ND		330	315		ug/Kg		95	24 - 120	3	20
Fluorene	ND		330	267		ug/Kg		81	35 - 120	3	20
Indeno[1,2,3-cd]pyrene	ND		330	312		ug/Kg		94	20 - 126	3	20
Naphthalene	ND		330	254		ug/Kg		77	32 - 120	0	20
Phenanthrene	ND		330	278		ug/Kg		84	28 - 120	2	20
Pyrene	ND		330	298		ug/Kg		90	24 - 123	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	75		33 - 120
Terphenyl-d14	96		35 - 146

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-143599/1-A

Matrix: Solid

Analysis Batch: 143565

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143599

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/04/13 14:29	09/05/13 04:20	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		09/04/13 14:29	09/05/13 04:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl	72		40 - 130	09/04/13 14:29	09/05/13 04:20	1

Lab Sample ID: LCS 720-143599/2-A

Matrix: Solid

Analysis Batch: 143565

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143599

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Diesel Range Organics [C10-C28]	82.6	48.9		mg/Kg		59	50 - 150

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
p-Terphenyl	66		40 - 130

TestAmerica Pleasanton

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 720-143599/3-A

Matrix: Solid

Analysis Batch: 143565

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 143599

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics [C10-C28]	82.6	70.0		mg/Kg		85	50 - 150	35	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	97		40 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-143449/1-A

Matrix: Solid

Analysis Batch: 143489

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Arsenic	ND		1.0		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Barium	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Beryllium	ND		0.10		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Cadmium	ND		0.13		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Chromium	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Cobalt	ND		0.20		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Copper	ND		1.5		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Lead	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Molybdenum	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Nickel	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Selenium	ND		1.0		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Silver	ND		0.25		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Thallium	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Vanadium	ND		0.50		mg/Kg		08/31/13 09:36	09/03/13 09:02	1
Zinc	ND		1.5		mg/Kg		08/31/13 09:36	09/03/13 09:02	1

Lab Sample ID: LCS 720-143449/2-A

Matrix: Solid

Analysis Batch: 143489

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	46.2		mg/Kg		92	80 - 120
Arsenic	50.0	45.7		mg/Kg		91	80 - 120
Barium	50.0	49.4		mg/Kg		99	80 - 120
Beryllium	50.0	48.1		mg/Kg		96	80 - 120
Cadmium	50.0	47.9		mg/Kg		96	80 - 120
Chromium	50.0	48.2		mg/Kg		96	80 - 120
Cobalt	50.0	47.3		mg/Kg		95	80 - 120
Copper	50.0	48.4		mg/Kg		97	80 - 120
Lead	50.0	48.0		mg/Kg		96	80 - 120
Molybdenum	50.0	48.8		mg/Kg		98	80 - 120
Nickel	50.0	48.3		mg/Kg		97	80 - 120
Selenium	50.0	45.5		mg/Kg		91	80 - 120
Silver	25.0	24.6		mg/Kg		98	80 - 120

TestAmerica Pleasanton

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-143449/2-A
Matrix: Solid
Analysis Batch: 143489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	50.0	48.3		mg/Kg		97	80 - 120
Vanadium	50.0	48.7		mg/Kg		97	80 - 120
Zinc	50.0	46.0		mg/Kg		92	80 - 120

Lab Sample ID: LCSD 720-143449/3-A
Matrix: Solid
Analysis Batch: 143489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 143449

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	50.0	46.9		mg/Kg		94	80 - 120	1	20
Arsenic	50.0	46.2		mg/Kg		92	80 - 120	1	20
Barium	50.0	49.1		mg/Kg		98	80 - 120	1	20
Beryllium	50.0	48.0		mg/Kg		96	80 - 120	0	20
Cadmium	50.0	48.2		mg/Kg		96	80 - 120	1	20
Chromium	50.0	47.6		mg/Kg		95	80 - 120	1	20
Cobalt	50.0	47.8		mg/Kg		96	80 - 120	1	20
Copper	50.0	48.1		mg/Kg		96	80 - 120	1	20
Lead	50.0	48.3		mg/Kg		97	80 - 120	1	20
Molybdenum	50.0	49.4		mg/Kg		99	80 - 120	1	20
Nickel	50.0	48.6		mg/Kg		97	80 - 120	1	20
Selenium	50.0	45.8		mg/Kg		92	80 - 120	1	20
Silver	25.0	24.2		mg/Kg		97	80 - 120	2	20
Thallium	50.0	48.7		mg/Kg		97	80 - 120	1	20
Vanadium	50.0	48.4		mg/Kg		97	80 - 120	1	20
Zinc	50.0	46.3		mg/Kg		93	80 - 120	1	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-143450/1-A
Matrix: Solid
Analysis Batch: 143632

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143450

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		08/31/13 10:42	09/04/13 16:14	1

Lab Sample ID: LCS 720-143450/2-A
Matrix: Solid
Analysis Batch: 143632

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.842		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 720-143450/3-A
Matrix: Solid
Analysis Batch: 143632

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 143450

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.833	0.858		mg/Kg		103	80 - 120	2	20

TestAmerica Pleasanton

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 720-143453/1-A
Matrix: Solid
Analysis Batch: 143705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143453

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		08/31/13 12:08	09/05/13 18:48	1

Lab Sample ID: LCS 720-143453/2-A
Matrix: Solid
Analysis Batch: 143705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143453

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.875		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 720-143453/3-A
Matrix: Solid
Analysis Batch: 143705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 143453

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.875		mg/Kg		105	80 - 120	0	20

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

GC/MS Semi VOA

Prep Batch: 143659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	3546	
720-52037-5 MS	VULCAN-1	Total/NA	Solid	3546	
720-52037-5 MSD	VULCAN-1	Total/NA	Solid	3546	
720-52037-10	VULCAN-2	Total/NA	Solid	3546	
720-52037-15	VULCAN-3	Total/NA	Solid	3546	
720-52037-20	VULCAN-4	Total/NA	Solid	3546	
720-52037-25	VULCAN-5	Total/NA	Solid	3546	
720-52037-30	VULCAN-6	Total/NA	Solid	3546	
720-52037-35	VULCAN-7	Total/NA	Solid	3546	
720-52037-40	VULCAN-8	Total/NA	Solid	3546	
720-52037-45	VULCAN-9	Total/NA	Solid	3546	
720-52037-50	VULCAN-10	Total/NA	Solid	3546	
720-52037-55	VULCAN-11	Total/NA	Solid	3546	
LCS 720-143659/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-143659/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-143659/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 143737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	8270C SIM	143659
720-52037-5 MS	VULCAN-1	Total/NA	Solid	8270C SIM	143659
720-52037-5 MSD	VULCAN-1	Total/NA	Solid	8270C SIM	143659
720-52037-10	VULCAN-2	Total/NA	Solid	8270C SIM	143659
720-52037-15	VULCAN-3	Total/NA	Solid	8270C SIM	143659
720-52037-20	VULCAN-4	Total/NA	Solid	8270C SIM	143659
720-52037-25	VULCAN-5	Total/NA	Solid	8270C SIM	143659
720-52037-30	VULCAN-6	Total/NA	Solid	8270C SIM	143659
720-52037-35	VULCAN-7	Total/NA	Solid	8270C SIM	143659
720-52037-40	VULCAN-8	Total/NA	Solid	8270C SIM	143659
720-52037-45	VULCAN-9	Total/NA	Solid	8270C SIM	143659
720-52037-50	VULCAN-10	Total/NA	Solid	8270C SIM	143659
720-52037-55	VULCAN-11	Total/NA	Solid	8270C SIM	143659
LCS 720-143659/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	143659
LCSD 720-143659/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	143659
MB 720-143659/1-A	Method Blank	Total/NA	Solid	8270C SIM	143659

GC Semi VOA

Analysis Batch: 143565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-143599/2-A	Lab Control Sample	Total/NA	Solid	8015B	143599
LCSD 720-143599/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	143599
MB 720-143599/1-A	Method Blank	Total/NA	Solid	8015B	143599

Prep Batch: 143599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	3546	
720-52037-10	VULCAN-2	Total/NA	Solid	3546	
720-52037-15	VULCAN-3	Total/NA	Solid	3546	
720-52037-20	VULCAN-4	Total/NA	Solid	3546	

TestAmerica Pleasanton

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

GC Semi VOA (Continued)

Prep Batch: 143599 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-25	VULCAN-5	Total/NA	Solid	3546	
720-52037-30	VULCAN-6	Total/NA	Solid	3546	
720-52037-35	VULCAN-7	Total/NA	Solid	3546	
720-52037-40	VULCAN-8	Total/NA	Solid	3546	
720-52037-45	VULCAN-9	Total/NA	Solid	3546	
720-52037-50	VULCAN-10	Total/NA	Solid	3546	
720-52037-55	VULCAN-11	Total/NA	Solid	3546	
LCS 720-143599/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 720-143599/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-143599/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 143637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-55	VULCAN-11	Total/NA	Solid	8015B	143599

Analysis Batch: 143638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-30	VULCAN-6	Total/NA	Solid	8015B	143599
720-52037-35	VULCAN-7	Total/NA	Solid	8015B	143599
720-52037-40	VULCAN-8	Total/NA	Solid	8015B	143599
720-52037-45	VULCAN-9	Total/NA	Solid	8015B	143599
720-52037-50	VULCAN-10	Total/NA	Solid	8015B	143599

Analysis Batch: 143653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	8015B	143599
720-52037-10	VULCAN-2	Total/NA	Solid	8015B	143599
720-52037-15	VULCAN-3	Total/NA	Solid	8015B	143599
720-52037-20	VULCAN-4	Total/NA	Solid	8015B	143599
720-52037-25	VULCAN-5	Total/NA	Solid	8015B	143599

Metals

Prep Batch: 143449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	3050B	
720-52037-10	VULCAN-2	Total/NA	Solid	3050B	
720-52037-15	VULCAN-3	Total/NA	Solid	3050B	
720-52037-20	VULCAN-4	Total/NA	Solid	3050B	
720-52037-25	VULCAN-5	Total/NA	Solid	3050B	
720-52037-30	VULCAN-6	Total/NA	Solid	3050B	
720-52037-35	VULCAN-7	Total/NA	Solid	3050B	
720-52037-40	VULCAN-8	Total/NA	Solid	3050B	
720-52037-45	VULCAN-9	Total/NA	Solid	3050B	
720-52037-50	VULCAN-10	Total/NA	Solid	3050B	
720-52037-55	VULCAN-11	Total/NA	Solid	3050B	
LCS 720-143449/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 720-143449/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 720-143449/1-A	Method Blank	Total/NA	Solid	3050B	

TestAmerica Pleasanton

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Metals (Continued)

Prep Batch: 143450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	7471A	
720-52037-10	VULCAN-2	Total/NA	Solid	7471A	
720-52037-15	VULCAN-3	Total/NA	Solid	7471A	
720-52037-20	VULCAN-4	Total/NA	Solid	7471A	
720-52037-25	VULCAN-5	Total/NA	Solid	7471A	
720-52037-30	VULCAN-6	Total/NA	Solid	7471A	
LCS 720-143450/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-143450/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-143450/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 143453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-35	VULCAN-7	Total/NA	Solid	7471A	
720-52037-40	VULCAN-8	Total/NA	Solid	7471A	
720-52037-45	VULCAN-9	Total/NA	Solid	7471A	
720-52037-50	VULCAN-10	Total/NA	Solid	7471A	
720-52037-55	VULCAN-11	Total/NA	Solid	7471A	
LCS 720-143453/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-143453/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-143453/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 143489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-143449/2-A	Lab Control Sample	Total/NA	Solid	6010B	143449
LCSD 720-143449/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	143449
MB 720-143449/1-A	Method Blank	Total/NA	Solid	6010B	143449

Analysis Batch: 143548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	6010B	143449
720-52037-10	VULCAN-2	Total/NA	Solid	6010B	143449
720-52037-15	VULCAN-3	Total/NA	Solid	6010B	143449
720-52037-20	VULCAN-4	Total/NA	Solid	6010B	143449
720-52037-25	VULCAN-5	Total/NA	Solid	6010B	143449
720-52037-30	VULCAN-6	Total/NA	Solid	6010B	143449
720-52037-35	VULCAN-7	Total/NA	Solid	6010B	143449
720-52037-40	VULCAN-8	Total/NA	Solid	6010B	143449
720-52037-45	VULCAN-9	Total/NA	Solid	6010B	143449
720-52037-50	VULCAN-10	Total/NA	Solid	6010B	143449
720-52037-55	VULCAN-11	Total/NA	Solid	6010B	143449

Analysis Batch: 143632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-5	VULCAN-1	Total/NA	Solid	7471A	143450
720-52037-10	VULCAN-2	Total/NA	Solid	7471A	143450
720-52037-15	VULCAN-3	Total/NA	Solid	7471A	143450
720-52037-20	VULCAN-4	Total/NA	Solid	7471A	143450
720-52037-25	VULCAN-5	Total/NA	Solid	7471A	143450
720-52037-30	VULCAN-6	Total/NA	Solid	7471A	143450
LCS 720-143450/2-A	Lab Control Sample	Total/NA	Solid	7471A	143450
LCSD 720-143450/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	143450

TestAmerica Pleasanton

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Metals (Continued)

Analysis Batch: 143632 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-143450/1-A	Method Blank	Total/NA	Solid	7471A	143450

Analysis Batch: 143705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52037-35	VULCAN-7	Total/NA	Solid	7471A	143453
720-52037-40	VULCAN-8	Total/NA	Solid	7471A	143453
720-52037-45	VULCAN-9	Total/NA	Solid	7471A	143453
720-52037-50	VULCAN-10	Total/NA	Solid	7471A	143453
720-52037-55	VULCAN-11	Total/NA	Solid	7471A	143453
LCS 720-143453/2-A	Lab Control Sample	Total/NA	Solid	7471A	143453
LCSD 720-143453/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	143453
MB 720-143453/1-A	Method Blank	Total/NA	Solid	7471A	143453

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-1

Lab Sample ID: 720-52037-5

Date Collected: 08/30/13 11:42

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 11:47	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143653	09/05/13 14:36	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 17:30	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:06	SLK	TAL PLS

Client Sample ID: VULCAN-2

Lab Sample ID: 720-52037-10

Date Collected: 08/30/13 11:44

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 12:49	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143653	09/05/13 15:06	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 17:34	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:14	SLK	TAL PLS

Client Sample ID: VULCAN-3

Lab Sample ID: 720-52037-15

Date Collected: 08/30/13 11:46

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 13:09	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143653	09/05/13 15:35	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 17:39	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:17	SLK	TAL PLS

Client Sample ID: VULCAN-4

Lab Sample ID: 720-52037-20

Date Collected: 08/30/13 11:48

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-4

Lab Sample ID: 720-52037-20

Date Collected: 08/30/13 11:48

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 13:30	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143653	09/05/13 16:04	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 17:51	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:20	SLK	TAL PLS

Client Sample ID: VULCAN-5

Lab Sample ID: 720-52037-25

Date Collected: 08/30/13 11:50

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 16:14	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143653	09/05/13 16:33	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 17:56	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:22	SLK	TAL PLS

Client Sample ID: VULCAN-6

Lab Sample ID: 720-52037-30

Date Collected: 08/30/13 11:52

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 16:35	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143638	09/05/13 14:12	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:00	SLK	TAL PLS
Total/NA	Prep	7471A			143450	08/31/13 10:42	ASB	TAL PLS
Total/NA	Analysis	7471A		1	143632	09/04/13 17:24	SLK	TAL PLS

Client Sample ID: VULCAN-7

Lab Sample ID: 720-52037-35

Date Collected: 08/30/13 11:54

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 14:32	MQL	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-7

Lab Sample ID: 720-52037-35

Date Collected: 08/30/13 11:54

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143638	09/05/13 14:37	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:04	SLK	TAL PLS
Total/NA	Prep	7471A			143453	08/31/13 12:08	ECT	TAL PLS
Total/NA	Analysis	7471A		1	143705	09/05/13 19:29	SLK	TAL PLS

Client Sample ID: VULCAN-8

Lab Sample ID: 720-52037-40

Date Collected: 08/30/13 11:56

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 14:52	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143638	09/05/13 15:01	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:08	SLK	TAL PLS
Total/NA	Prep	7471A			143453	08/31/13 12:08	ECT	TAL PLS
Total/NA	Analysis	7471A		1	143705	09/05/13 19:32	SLK	TAL PLS

Client Sample ID: VULCAN-9

Lab Sample ID: 720-52037-45

Date Collected: 08/30/13 11:58

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 15:13	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143638	09/05/13 15:25	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:13	SLK	TAL PLS
Total/NA	Prep	7471A			143453	08/31/13 12:08	ECT	TAL PLS
Total/NA	Analysis	7471A		1	143705	09/05/13 19:34	SLK	TAL PLS

Client Sample ID: VULCAN-10

Lab Sample ID: 720-52037-50

Date Collected: 08/30/13 12:00

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 15:33	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Client Sample ID: VULCAN-10

Lab Sample ID: 720-52037-50

Date Collected: 08/30/13 12:00

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	143638	09/05/13 15:50	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:17	SLK	TAL PLS
Total/NA	Prep	7471A			143453	08/31/13 12:08	ECT	TAL PLS
Total/NA	Analysis	7471A		1	143705	09/05/13 19:37	SLK	TAL PLS

Client Sample ID: VULCAN-11

Lab Sample ID: 720-52037-55

Date Collected: 08/30/13 12:02

Matrix: Solid

Date Received: 08/30/13 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			143659	09/05/13 10:56	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	143737	09/06/13 15:54	MQL	TAL PLS
Total/NA	Prep	3546			143599	09/04/13 14:29	NDU	TAL PLS
Total/NA	Analysis	8015B		1	143637	09/05/13 14:37	DCH	TAL PLS
Total/NA	Prep	3050B			143449	08/31/13 09:36	ASB	TAL PLS
Total/NA	Analysis	6010B		4	143548	09/03/13 18:21	SLK	TAL PLS
Total/NA	Prep	7471A			143453	08/31/13 12:08	ECT	TAL PLS
Total/NA	Analysis	7471A		1	143705	09/05/13 19:39	SLK	TAL PLS

Laboratory References:

EMLab San = EMLab P&K - San Bruno, 1150 Bayhill Drive #100, San Bruno, CA 94066, TEL (866)888-6653

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Laboratory: EMLab P&K - San Bruno

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
N/A	N/A	N/A	None on record.	

- 1
- 2
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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
Asbestos	General Sub Contract Method	NONE	EMLab San

Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EMLab San = EMLab P&K - San Bruno, 1150 Bayhill Drive #100, San Bruno, CA 94066, TEL (866)888-6653

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Hansen

TestAmerica Job ID: 720-52037-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-52037-5	VULCAN-1	Solid	08/30/13 11:42	08/30/13 15:32
720-52037-10	VULCAN-2	Solid	08/30/13 11:44	08/30/13 15:32
720-52037-15	VULCAN-3	Solid	08/30/13 11:46	08/30/13 15:32
720-52037-20	VULCAN-4	Solid	08/30/13 11:48	08/30/13 15:32
720-52037-25	VULCAN-5	Solid	08/30/13 11:50	08/30/13 15:32
720-52037-30	VULCAN-6	Solid	08/30/13 11:52	08/30/13 15:32
720-52037-35	VULCAN-7	Solid	08/30/13 11:54	08/30/13 15:32
720-52037-40	VULCAN-8	Solid	08/30/13 11:56	08/30/13 15:32
720-52037-45	VULCAN-9	Solid	08/30/13 11:58	08/30/13 15:32
720-52037-50	VULCAN-10	Solid	08/30/13 12:00	08/30/13 15:32
720-52037-55	VULCAN-11	Solid	08/30/13 12:02	08/30/13 15:32





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Report for:

Ms. Dimple Sharma
TestAmerica Pleasanton
 1220 Quarry Lane
 Pleasanton, CA 94566

Regarding: Project: 720-52037-1; Hansen
 EML ID: 1109050

Approved by:

Dates of Analysis:
 Asbestos-EPA Method 600/R-93/116: 09-06-2013



Approved Signatory
 Miguel Ines

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01267))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: TestAmerica Pleasanton
C/O: Ms. Dimple Sharma
Re: 720-52037-1; HansenDate of Sampling: 08-30-2013
Date of Receipt: 09-04-2013
Date of Report: 09-06-2013**ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116**

Total Samples Submitted:	11
Total Samples Analysed:	11
Total Samples with Layer Asbestos Content > 1%:	0

Location: Vulcan-1, 720-52037-5

Lab ID-Version‡: 5002256-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity: Good	

Location: Vulcan-2, 720-52037-10

Lab ID-Version‡: 5002257-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity: Good	

Location: Vulcan-3, 720-52037-15

Lab ID-Version‡: 5002258-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity: Good	

Location: Vulcan-4, 720-52037-20

Lab ID-Version‡: 5002259-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity: Good	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica Pleasanton
C/O: Ms. Dimple Sharma
Re: 720-52037-1; HansenDate of Sampling: 08-30-2013
Date of Receipt: 09-04-2013
Date of Report: 09-06-2013**ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116****Location: Vulcan-5, 720-52037-25**

Lab ID-Version‡: 5002260-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

Location: Vulcan-6, 720-52037-30

Lab ID-Version‡: 5002261-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

Location: Vulcan-7, 720-52037-35

Lab ID-Version‡: 5002262-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

Location: Vulcan-8, 720-52037-40

Lab ID-Version‡: 5002263-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: TestAmerica Pleasanton
 C/O: Ms. Dimple Sharma
 Re: 720-52037-1; Hansen

Date of Sampling: 08-30-2013
 Date of Receipt: 09-04-2013
 Date of Report: 09-06-2013

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: Vulcan-9, 720-52037-45

Lab ID-Version‡: 5002264-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

Location: Vulcan-10, 720-52037-50

Lab ID-Version‡: 5002265-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

Location: Vulcan-11, 720-52037-55

Lab ID-Version‡: 5002266-1

Sample Layers	Asbestos Content
Beige Soil With Granular Minerals	ND
Sample Composite Homogeneity:	Good

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

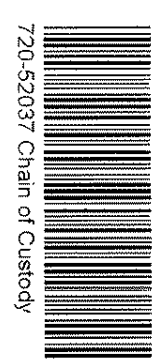
TESTAMERICA Pleasanton Chain of Custody
 1220 Quarry Lane • Pleasanton CA 94566-4756
 Phone: 925-484-1919 Fax: 925-484-0002
720-52037

Reference #: 148330
 Date 8/30/13 Page 1 of 2

Report To: **Analysis Request**

Attn: Katherine J Schwartz
 Company: Haley & Aldrich, Inc
 Address: 20351 N Main St, Walnut Creek
 Email: Katherine@haleyaldrich.com
 Bill To: H&A Sampled By: J Sebore
 Attn: J Sebore Phone: 925-357-7355

Sample ID	Date	Time	Mel	Preserv	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B	HVOCs by <input type="checkbox"/> EPA 8260B	EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	TEPH EPA 8015B <input type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	SemiVolatile Organics GC/MS <input type="checkbox"/> EPA 8270C	PNA/PAHs by <input type="checkbox"/> 8270C <input checked="" type="checkbox"/> 8270C SIM	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664/9071) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 PCBs <input type="checkbox"/> EPA 8082	CAM17 Metals + Hg (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> 6010B <input type="checkbox"/> 200.7 <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	Metals: <input type="checkbox"/> 6020 <input type="checkbox"/> 200.8 (ICP-MS)	<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> W.E.T (DI) <input type="checkbox"/> TCLP	Hex Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199	pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500	<input type="checkbox"/> Spec. Cond <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄	<input type="checkbox"/> Perchlorate by EPA 314 0	COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity	Number of Containers		
Vulcan-1	8/30/13	1142	S	Ice				X	X	X														4	
Vulcan-2		1144						X	X	X															4
Vulcan-3		1146						X	X	X															4
Vulcan-4		1148						X	X	X															4
Vulcan-5		1150						X	X	X															4
Vulcan-6		1152						X	X	X															4
Vulcan-7		1154						X	X	X															4
Vulcan-8		1156						X	X	X															4
Vulcan-9		1158						X	X	X															4
Vulcan-10		1200						X	X	X															4



Project Info
 Project Name: AWSON
 Former: AWSON
 Agency: Agropur Facility
 PO#: 39792
 Credit Card: 39792
 Y/N: Y
 If yes, please call with payment information ASAP

Sample Receipt
 # of Containers: 40
 Head Space: 3-8c

T	A	10	5	4	3	2	1	Other
Day	Day	Day	Day	Day	Day	Day	Day	Day

1) Relinquished by: J Sebore Signature J Sebore Time 1532
 Printed Name J Sebore Date 8/30/13
 Company Haley & Aldrich

2) Relinquished by: J Sebore Signature J Sebore Time 1532
 Printed Name J Sebore Date 8/30/13
 Company Haley & Aldrich

3) Relinquished by: J Sebore Signature J Sebore Time 1532
 Printed Name J Sebore Date 8/30/13
 Company Haley & Aldrich

Report: Routine Level 3 Level 4 EDD EDF
 Special Instructions / Comments: Global ID _____
Please composite 4 8-oz
jars of each
sample in lab.
 See Terms and Conditions on reverse

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
 Phone: (925) 84-1919 • Fax: (925) 600-2002

700-52037

Date 8/30/13 Page 2 of 2

Reference #: 148330

Report 1

Analysis Request

Attn: K Guthrie, JSchwartz
 Company: Haley & Aldrich
 Address: 2033 N Main St, Walnut Creek
 Email: kguthrie@haleyaldrich.com
 Bill To: H&A Sampled By: J Seibel
 Attn: J Seibel Phone: 925-357-7335

Volatile Organics GC/MS (VOCs)
 EPA 8260B
 HVOCs by EPA 8260B
 EPA 8260B: Gas BTEX
 5 Oxygenates DCA, EDB Ethanol
 TEPH EPA 8015B Silica Gel
 Diesel Motor Oil Other _____
 SemiVolatile Organics GC/MS
 EPA 8270C
 PNA/PAH's by 8270C
 8270C SIM
 Oil and Grease Petroleum
 (EPA 1664/9071) Total
 Pesticides EPA 8081
 PCBs EPA 8082
 CAM17 Metals + H₂
 (EPA 6010/7470/7471)
 Metals: 6010B 200 7
 Lead LUFT RCRA
 Other _____
 Metals: 6020 200.8
 (ICP-MS): _____
 WET (STLC)
 WET (DI) TCLP
 Hex Chrom by EPA 7196
 or EPA 7199
 pH 9040
 SM4500
 Spec. Cond Alkalinity
 TSS SS TDS
 Anions: Cl SO₄ NO₃ F
 Br NO₂ PO₄
 Perchlorate by EPA 314.0
 COD EPA 410 4 SM5220D
 Turbidity
bulk PLM (asbestos)
 Number of Containers

Sample ID	Date	Time	Mat	Preserv
<u>Vulcan-11</u>	<u>8/30/13</u>	<u>12:28</u>	<u>S</u>	<u>ice</u>
<i>(The following table is crossed out with a large X)</i>				

Project Info

Project Name: Former Hanson Aggregate
 PO#: 357792 Temp: 7.80
 Credit Card: _____
 Y/N: _____
 If yes, please call with payment information ASAP

Sample Receipt

of Containers: _____
 Head Space: _____
 1) Relinquished by: [Signature] Time: 1532
 Signature: [Signature] Printed Name: JOANNA SEAN Date: 8/30/13
 Company: Haley & Aldrich
 2) Received by: _____
 Signature: _____ Printed Name: _____ Date: _____
 Company: _____
 3) Relinquished by: _____
 Signature: _____ Printed Name: _____ Date: _____
 Company: _____

T 10 Day
 A 10 Day
 1 1 Day
 2 2 Day
 3 3 Day
 4 4 Day
 5 5 Day
 Other: _____

Report: Routine Level 3 Level 4 EDD EDF
 Special Instructions / Comments: Please composite 4 8-oz jars for each sample
 See Terms and Conditions on reverse

1) Received by: [Signature] Time: 1532
 Signature: [Signature] Printed Name: WALTER Date: 8-30-13
 Company: [Signature]
 2) Received by: _____
 Signature: _____ Printed Name: _____ Date: _____
 Company: _____
 3) Received by: _____
 Signature: _____ Printed Name: _____ Date: _____
 Company: _____

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 720-52037-1

Login Number: 52037

List Number: 1

Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

