

November 30, 2012

Jim Mason  
10481 Ann Coleman Road  
Juneau, Alaska 998081

Dear Mr. Mason,

On October 29 and 30, 2012, Carson Dorn performed characterization sampling at 10481 Ann Coleman Road in Juneau, Alaska. The sampling followed excavation of approximately 90 CY of soil from the side yard of the residence, and of that total, about 34 yards was contaminated. The contaminated material was hauled to the Bicknell, Inc. treatment facility.

The excavation occurred at the site of a 2007 release of heating fuel from a leaking underground storage tank (UST). The tank was removed in 2007, but residual contamination remained at the site and in a wetland area on a neighbor's adjoining parcel (to the west).

The excavation proceeded in two steps because of the tight work area. Early on October 29, Hole #1 was excavated where the old UST had been located. The hole was approximately 12' x 12' x 8' deep. It was constrained to the north by a fence on the property line and to the south and east by the building foundation and concrete slabs. PID field screening indicated no contamination remained on the walls and floor of the hole. Clearance samples were collected and sent the following day to Test America for DRO analysis. Subsequent to sampling, the floor of the hole was covered with fertilizer and the hole was backfilled with clean material. One 6'-deep fertilizer stand pipe was installed along the fence line to the north.

Later on October 29, Hole #2 was excavated immediately to the west of Hole #1. It was about 12' x 10' x 8' deep. The excavation was constrained to the north and west by a fence line and to the south by the building foundation. PID field screening indicated no contamination remained on the walls and floor of the hole. Clearance samples were collected and sent the following day to Test America for DRO analysis. Subsequent to sampling, the floor of the hole was covered with fertilizer and then the hole was backfilled with clean material. Two 6'-deep fertilizer stand pipes were installed along the fence line to the north.

On October 30, two shallow holes were excavated in the wooded area on the neighbor's adjoining parcel. The holes were about 6' x 6' x 3' deep. Approximately 8 CY of material was hauled away. One characterization sample was collected from each shallow excavation and sent to Test America for DRO analysis. Subsequent to sampling, fertilizer was spread on the bottom of each excavation, a 3'-deep fertilizer stand pipe was installed in each hole, and then the holes were backfilled with clean material.

DRO sampling locations and lab results are illustrated on Figure 1 "Mason Sampling Map" and tabulated below. The lab report is attached herewith as Enclosure 1. Digital images of the site are found in Enclosure 2.

**TABLE 1**  
**DRO Lab Results**

<b>Excavation I.D.</b>	<b>Sample Location (depth)</b>	<b>DRO (mg/KG)</b>
Hole #1	North wall (8')	630
	South wall (8')	5,900
	East wall (8')	1,400
	Floor (8')	98
Hole #2	North wall (8')	230
	South wall (8')	46
	West wall (8')	82
	Floor (8')	30
Area 3 (north)	Floor (3')	66,000
Area 3 (south)	Floor (3')	3,200

Based on the history of the site and the characterization sampling results, our findings are as follows:

FINDINGS:

- 1) The source of the contamination was a leaking UST located roughly in the footprint of Hole #1. The release was discovered in 2007 and the tank was removed in 2007, thus eliminating the primary source of the release.
- 2) The 2012 excavation of Hole#1 was constrained to the north by a fence along the property line, to the south by the foundation of the residence, and to the east by a concrete slab. The lab results show that some contamination may extend beneath the house and perhaps some under the slab. Only minor contamination exists at the north property line. Thus, the excavation of Hole #1 has eliminated the majority of contaminated soil that had remained in place since 2007. Fertilizer was spread on the floor of the excavation and a fertilizer injection stand pipe was installed when Hole #1 was backfilled.
- 3) The 2012 excavation and sampling of Hole #2 shows that no contamination remains in that area. Nonetheless, fertilizer was spread on the floor of the excavation and two fertilizer injection stand pipes were installed when Hole #2 was backfilled.
- 4) The shallow 2012 excavations and sampling in the adjacent wooded area (Area 3N and Area 3S) shows that significant contamination still remains in that area, particularly in Area 3N. Fertilizer was spread on the floor of the excavations and fertilizer injection stand pipes were installed when those holes were backfilled.
- 5) Area 3N is situated at the low point of the wooded wetland area into which the 2007 spill migrated. Both Area 3 excavations had standing water in them (about 1.5' below surrounding grade) when sampling was accomplished.
- 6) The neighbor's home is built on a concrete slab on grade.

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Based on the above findings, our recommendations for the site are as follows:

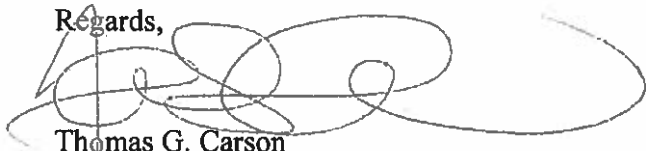
RECOMMENDATIONS

- 1) Hole #1: Fertilizer should be added on a quarterly basis to the three fertilizer injection standpipes. Another round of sampling should occur during September or October 2013 to evaluate the effectiveness of the treatment.
- 2) Hole #2: No further action is recommended.

- 3) Area 3N and 3S: It appears that the remaining hydrocarbon contamination is bound in the organic soil in the adjoining forest wetlands. This situation is probably the best we could hope for since the contamination is held in an identifiable area and is probably not migrating further. In an effort to minimize impact to the forested area, we recommend constructing a collection basin at the low point of the impacted area and regularly maintaining the collected water with sorbent pads. Another round of sampling should occur during September or October 2013 to evaluate the progress of the treatment.

I have copied Erik Norberg with this letter so he is aware of our findings and recommendations.

Regards,



Thomas G. Carson  
Principal, Carson Dorn, Inc.

cc: Erik Norberg (ADEC Contaminated Sites)

Enclosures

**ENCLOSURE 2**  
**DIGITAL IMAGES**



**Image 1**

**Hole #1, north wall. Fertilizer can be seen on floor of excavation. Fertilizer injection stand pipe is in place and ready for backfill.**



**Image 2**

**Hole #1, west wall. Fertilizer can be seen on floor of excavation. Fertilizer injection stand pipe is in place and ready for backfill.**



**Image 3**

**Hole #1, east wall. Fertilizer can be seen on floor of excavation. Fertilizer injection stand pipe is in place and ready for backfill.**



**Image 4**

**Hole#2 north and west walls. Fertilizer has been spread on floor of excavation and fertilizer injection stand pipes are in position.**



**Image 5**

**Area 3N. Fertilizer has been spread on floor of excavation and fertilizer injection stand pipe is in position. Note standing water in excavation. This is the low point in the surrounding wooded area.**



**Image 6**

**Area 3S. Fertilizer has been spread on floor of excavation and fertilizer injection stand pipe is in position. Some water is present in the excavation.**



**Image 7**

**Mason residence, looking west along north wall. Holes #1 and #2 were both located in the foreground area adjacent to the house. Note drop off into forested area at right. Areas 3N and 3S are in the forested area beyond the fenced yard.**



**Image 8**

**View from forested area looking south. Mason residence is visible in the distance at the left edge of the image. Areas 3N and 3S are just beyond the large tree in the center of the image.**



**Image 9**

**Taken from the same position as Image 8 but looking to the west. The neighbor's house can just be seen at the right of the image. The house is built on a slab on grade, with no crawl space.**



**ENCLOSURE 1**  
**LAB REPORT**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-35756-1

Client Project/Site: Mason Closure Sampling

For:  
Carson Dorn, Inc  
712 West 12th Street  
Juneau, Alaska 99801

Attn: Jolene Cox

*Pamela R. Johnson*

Authorized for release by:  
11/14/2012 1:44:34 PM

Pam Johnson  
Project Manager I  
pamr.johnson@testamericainc.com

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?

**Ask  
The  
Expert**

Visit us at:  
[www.testamericainc.com](http://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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## Case Narrative

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

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Job ID: 580-35756-1

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Laboratory: TestAmerica Seattle

### Narrative

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/31/2012 4:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7° C.

#### GC Semi VOA - Method AK102/103

In analysis batch 124372, for the following samples Area 3-North hole (580-35756-9), Area 3-South hole (580-35756-10), Hole 1-East wall (580-35756-3), Hole 1-Floor of Excavation (580-35756-4), Hole 1-North wall (580-35756-1), Hole 1-South wall (580-35756-2), Hole 2-Floor of excavation (580-35756-8), Hole 2-North wall (580-35756-5), Hole 2-South wall (580-35756-6), Hole 2-West wall (580-35756-7) from preparation batch 124368:

In samples Hole 1-North wall (580-35756-1), Hole 1-South wall (580-35756-2), Hole 1-East wall (580-35756-3) and Area 3-North hole (580-35756-9), the results in the C10-C25 range are due to what most closely resembles a complex mixture of weathered gasoline/kerosene range product, heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, and possible biogenic interference.

In samples Hole 1-Floor of Excavation (580-35756-4), Hole 2-North wall (580-35756-5), Hole 2-South wall (580-35756-6), Hole 2-West wall (580-35756-7), Hole 2-Floor of excavation (580-35756-8) and Area 3-South hole (580-35756-10) the results in the C10-C25 range are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, and possible biogenic interference.

The affected analyte range is qualified "Y" and has been reported.

No other analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

#### Organic Prep

No analytical or quality issues were noted.



## Definitions/Glossary

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

### 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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
RER	Relative error ratio
DER	Duplicate error ratio (normalized absolute difference)
DLC	Decision level concentration
RL	Reporting Limit or Requested Limit (Radiochemistry only)

# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 1-North wall

Lab Sample ID: 580-35756-1

Date Collected: 10/29/12 10:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 51.4

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	630	Y	37		mg/Kg	☐	11/09/12 09:15	11/09/12 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150	11/09/12 09:15	11/09/12 16:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	51		0.10		%			11/02/12 15:59	1
Percent Moisture	49		0.10		%			11/02/12 15:59	1



# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 1-South wall

Lab Sample ID: 580-35756-2

Date Collected: 10/29/12 10:35

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 85.0

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
DRO (nC10-<nC25)	5900	Y	23		mg/Kg	☒	11/09/12 09:15	11/09/12 16:51	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>DII Fac</i>
<i>o-Terphenyl</i>	121		50 - 150				11/09/12 09:15	11/09/12 16:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	DII Fac
Percent Solids	85		0.10		%			11/02/12 15:59	1
Percent Moisture	15		0.10		%			11/02/12 15:59	1



## Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 1-East wall

Lab Sample ID: 580-35756-3

Date Collected: 10/29/12 10:40

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 84.9

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
DRO (nC10-<nC25)	1400	Y	23		mg/Kg	☐	11/09/12 09:15	11/09/12 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
<i>o</i> -Terphenyl	100		50 - 150	11/09/12 09:15	11/09/12 17:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	DII Fac
Percent Solids	85		0.10		%			11/02/12 16:15	1
Percent Moisture	15		0.10		%			11/02/12 16:15	1





# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 1-Floor of Excavation

Lab Sample ID: 580-35756-4

Date Collected: 10/29/12 10:50

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 79.1

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	98	Y	25		mg/Kg	☐	11/09/12 09:15	11/09/12 17:25	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	<i>91</i>		<i>50 - 150</i>				<i>11/09/12 09:15</i>	<i>11/09/12 17:25</i>	<i>1</i>

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			11/02/12 16:15	1
Percent Moisture	21		0.10		%			11/02/12 16:15	1



# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 2-North wall

Lab Sample ID: 580-35756-5

Date Collected: 10/29/12 16:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 68.8

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
DRO (nC10-<nC25)	230	Y	28		mg/Kg	☐	11/09/12 09:15	11/09/12 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
<i>o</i> -Terphenyl	82		50 - 150	11/09/12 09:15	11/09/12 17:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	DII Fac
Percent Solids	69		0.10		%			11/02/12 16:15	1
Percent Moisture	31		0.10		%			11/02/12 16:15	1



# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 2-South wall

Lab Sample ID: 580-35756-6

Date Collected: 10/29/12 16:20

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 68.1

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	46	Y	29		mg/Kg	☐	11/09/12 09:15	11/09/12 17:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	78		50 - 150				11/09/12 09:15	11/09/12 17:58	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	68		0.10		%			11/02/12 16:15	1
Percent Moisture	32		0.10		%			11/02/12 16:15	1



## Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 2-West wall

Lab Sample ID: 580-35756-7

Date Collected: 10/29/12 16:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 66.2

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	82	Y	30		mg/Kg	☐	11/09/12 09:15	11/09/12 18:15	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	79		50 - 150				11/09/12 09:15	11/09/12 18:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	66		0.10		%			11/02/12 16:15	1
Percent Moisture	34		0.10		%			11/02/12 16:15	1



## Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 2-Floor of excavation

Lab Sample ID: 580-35756-8

Date Collected: 10/29/12 16:30

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 79.7

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
DRO (nC10-<nC25)	30	Y	24		mg/Kg	☐	11/09/12 09:15	11/09/12 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
<i>o</i> -Terphenyl	79		50 - 150	11/09/12 09:15	11/09/12 19:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	DII Fac
Percent Solids	80		0.10		%			11/02/12 16:15	1
Percent Moisture	20		0.10		%			11/02/12 16:15	1



# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Area 3-North hole

Lab Sample ID: 580-35756-9

Date Collected: 10/30/12 11:45

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 13.2

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	66000	Y	140		mg/Kg	☐	11/09/12 09:15	11/09/12 19:22	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	93		50 - 150				11/09/12 09:15	11/09/12 19:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	13		0.10		%			11/02/12 16:15	1
Percent Moisture	87		0.10		%			11/02/12 16:15	1



# Client Sample Results

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Area 3-South hole

Lab Sample ID: 580-35756-10

Date Collected: 10/30/12 11:55

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 9.4

**Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	3200	Y	200		mg/Kg	☐	11/09/12 09:15	11/09/12 19:39	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	80		50 - 150				11/09/12 09:15	11/09/12 19:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	9.4		0.10		%			11/02/12 16:15	1
Percent Moisture	91		0.10		%			11/02/12 16:15	1



# QC Sample Results

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

## Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-124372/1-A

Matrix: Solid

Analysis Batch: 124368

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 124372

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
	Result	Qualifier							
DRO (nC10-<nC25)	ND		20		mg/Kg		11/09/12 09:15	11/09/12 15:44	1
Surrogate	MB MB		Limits			Prepared	Analyzed	DII Fac	
%Recovery	Qualifier								
o-Terphenyl	84		50 - 150			11/09/12 09:15	11/09/12 15:44	1	

Lab Sample ID: LCS 580-124372/2-A

Matrix: Solid

Analysis Batch: 124368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 124372

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
DRO (nC10-<nC25)	500	486		mg/Kg		97	75 - 125
Surrogate	LCS LCS		Limits			%Rec	
%Recovery	Qualifier						
o-Terphenyl	86		50 - 150				

Lab Sample ID: LCSD 580-124372/3-A

Matrix: Solid

Analysis Batch: 124368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 124372

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
DRO (nC10-<nC25)	500	497		mg/Kg		99	75 - 125	2	20
Surrogate	LCSD LCSD		Limits			%Rec			
%Recovery	Qualifier								
o-Terphenyl	86		50 - 150						

Lab Sample ID: 580-35756-10 MS

Matrix: Solid

Analysis Batch: 124368

Client Sample ID: Area 3-South hole

Prep Type: Total/NA

Prep Batch: 124372

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
DRO (nC10-<nC25)	3200	Y	5150	8570		mg/Kg	☐	105	75 - 125
Surrogate	MS MS		Limits			%Rec			
%Recovery	Qualifier								
o-Terphenyl	88		50 - 150						

Lab Sample ID: 580-35756-10 MSD

Matrix: Solid

Analysis Batch: 124368

Client Sample ID: Area 3-South hole

Prep Type: Total/NA

Prep Batch: 124372

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
DRO (nC10-<nC25)	3200	Y	5060	7670		mg/Kg	☐	89	75 - 125	11	20
Surrogate	MSD MSD		Limits			%Rec					
%Recovery	Qualifier										
o-Terphenyl	92		50 - 150								



# QC Sample Results

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

## Method: D 2216 - Percent Moisture

Lab Sample ID: 580-35756-3 DU  
Matrix: Solid  
Analysis Batch: 123930

Client Sample ID: Hole 1-East wall  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	85		82		%		3	20
Percent Moisture	15		18		%		16	20



# Lab Chronicle

Client: Carson Dorn, Inc  
 Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 1-North wall

Lab Sample ID: 580-35756-1

Date Collected: 10/29/12 10:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 51.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 16:35	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123929	11/02/12 15:59	JL	TAL SEA

Client Sample ID: Hole 1-South wall

Lab Sample ID: 580-35756-2

Date Collected: 10/29/12 10:35

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 16:51	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123929	11/02/12 15:59	JL	TAL SEA

Client Sample ID: Hole 1-East wall

Lab Sample ID: 580-35756-3

Date Collected: 10/29/12 10:40

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 17:08	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Hole 1-Floor of Excavation

Lab Sample ID: 580-35756-4

Date Collected: 10/29/12 10:50

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 17:25	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Hole 2-North wall

Lab Sample ID: 580-35756-5

Date Collected: 10/29/12 16:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 68.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 17:42	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

# Lab Chronicle

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Client Sample ID: Hole 2-South wall

Lab Sample ID: 580-35756-6

Date Collected: 10/29/12 16:20

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 68.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 17:58	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Hole 2-West wall

Lab Sample ID: 580-35756-7

Date Collected: 10/29/12 16:25

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 66.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 18:15	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Hole 2-Floor of excavation

Lab Sample ID: 580-35756-8

Date Collected: 10/29/12 16:30

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 19:05	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Area 3-North hole

Lab Sample ID: 580-35756-9

Date Collected: 10/30/12 11:45

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 13.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 19:22	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

Client Sample ID: Area 3-South hole

Lab Sample ID: 580-35756-10

Date Collected: 10/30/12 11:55

Matrix: Solid

Date Received: 10/31/12 16:05

Percent Solids: 9.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			124372	11/09/12 09:15	AA	TAL SEA
Total/NA	Analysis	AK102 & 103		1	124368	11/09/12 19:39	JL	TAL SEA
Total/NA	Analysis	D 2216		1	123930	11/02/12 16:15	RD	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Certification Summary

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

## Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-13
California	NELAC	9	1115CA	01-31-13
L-A-B	DoD ELAP		L2236	01-19-13
L-A-B	ISO/IEC 17025		L2236	01-19-13
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAC	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-13



# Sample Summary

Client: Carson Dorn, Inc  
Project/Site: Mason Closure Sampling

TestAmerica Job ID: 580-35756-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-35756-1	Hole 1-North wall	Solid	10/29/12 10:25	10/31/12 16:05
580-35756-2	Hole 1-South wall	Solid	10/29/12 10:35	10/31/12 16:05
580-35756-3	Hole 1-East wall	Solid	10/29/12 10:40	10/31/12 16:05
580-35756-4	Hole 1-Floor of Excavation	Solid	10/29/12 10:50	10/31/12 16:05
580-35756-5	Hole 2-North wall	Solid	10/29/12 16:25	10/31/12 16:05
580-35756-6	Hole 2-South wall	Solid	10/29/12 16:20	10/31/12 16:05
580-35756-7	Hole 2-West wall	Solid	10/29/12 16:25	10/31/12 16:05
580-35756-8	Hole 2-Floor of excavation	Solid	10/29/12 16:30	10/31/12 16:05
580-35756-9	Area 3-North hole	Solid	10/30/12 11:45	10/31/12 16:05
580-35756-10	Area 3-South hole	Solid	10/30/12 11:55	10/31/12 16:05



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**Anchorage**  
2000 W. International Airport Road  
Suite A10  
Anchorage, AK 99502  
phone 907.563.9200 fax 907.563.9210

AK OHA

**Chain of Custody Record**

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Carson Dom, Inc. 712 West 12th Street Juneau, AK 99801 Phone 907-586-4447 FAX 907-586-5917 Project Name: Mason Closure Sampling Site: Ann Coleman Drive P O #		<b>Project Manager:</b> Tel/Fax: _____ Analysis Turnaround Time Calendar (C) or Work Days (W) TAT if different from below: _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> Lab Contact: _____ Date: _____ Carrier: _____		<b>COC No:</b> _____ of _____ COCs Job No. _____ SDG No. _____ 35756 Sample Specific Notes: _____					
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	DR	Received by:	Date/Time:	Company:
Hole 1-North wall		10/29/2012	1025	grab	soil	1		X			
Hole 1-South wall		10/29/2012	1035	grab	soil	1		X			
Hole 1-East wall		10/29/2012	1040	grab	soil	1		X			
Hole 1-Floor of excavation		10/29/2012	1050	grab	soil	1		X			
Hole 2-North wall		10/29/2012	1625	grab	soil	1		X			
Hole 2-South wall		10/29/2012	1620	grab	soil	1		X			
Hole 2-West wall		10/29/2012	1625	grab	soil	1		X			
Hole 2-Floor of excavation		10/29/2012	1630	grab	soil	1		X			
Area 3-North hole		10/30/12	1145	grab	soil	1		X			
Area 3-South hole		10/30/12	1155	grab	soil	1		X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other  
 Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown   
 Special Instructions/QC Requirements & Comments:  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ 1 \_\_\_\_\_ Months

Goetter PB Dig/TR cor 4, 7' unc 4, 5' 2"  
 Cooler Dsc 1, 2, 3, 4 @ Lab 1605  
 Wet Packs Packing 3, 4, 5  
 W/C C 5

Relinquished by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_  
 Company: Carson Dom, Inc.  
 Date/Time: 10/30/12  
 Date/Time: 1615  
 Received by: \_\_\_\_\_  
 Received by: \_\_\_\_\_  
 Received by: \_\_\_\_\_  
 Company: T.A. S.E.H.  
 Date/Time: 12/31/12  
 Date/Time: 1605  
 Company: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

## Login Sample Receipt Checklist

Client: Carson Dorn, Inc

Job Number: 580-35756-1

Login Number: 35756

List Source: TestAmerica Seattle

List Number: 1

Creator: Riley, Nicole

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
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?	False	Not requested on COC.
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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

