



08/20/13

Technical Report for

Olsson Associates - Denver

Indian Tree 8/13/13

Accutest Job Number: D49279

Sampling Date: 08/13/13

Report to:

**Olsson Associates
4690 Table Mountain Drive Suite 200
Golden, CO 80403
bbaugh@olssonassociates.com**

ATTN: Ben Baugh

Total number of pages in report: 14



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'Scott Heideman'.

**Scott Heideman
Laboratory Director**

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates - Denver

Job No: D49279

Indian Tree 8/13/13

Sample Number	Collected		Matrix Code Type	Client	
	Date	Time By	Received	Sample ID	
D49279-1	08/13/13	13:40 BB	08/13/13	SO	Soil
					INDIAN TREE

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Olsson Associates - Denver

Job No D49279

Site: Indian Tree 8/13/13

Report Date 8/20/2013 4:01:36 PM

On 08/13/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D49279 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Wet Chemistry By Method SM2540B-2011 M

Matrix SO

Batch ID: GN21465

- The data for SM2540B-2011 M meets quality control requirements.

Wet Chemistry By Method SW846 9071B

Matrix SO

Batch ID: GP10719

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49279-1MS, D49279-1MSD were used as the QC samples for the HEM Oil and Grease analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D49279
Account: Olsson Associates - Denver
Project: Indian Tree 8/13/13
Collected: 08/13/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

D49279-1 INDIAN TREE

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	INDIAN TREE	Date Sampled:	08/13/13
Lab Sample ID:	D49279-1	Date Received:	08/13/13
Matrix:	SO - Soil	Percent Solids:	91.5
Project:	Indian Tree 8/13/13		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Oil and Grease Solids, Percent	< 270	270	mg/kg	1	08/20/13	SWT	SW846 9071B
	91.5		%	1	08/14/13	SWT	SM2540B-2011 M

RL = Reporting Limit

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D49279

Client: OLSSON ASSOC.

Immediate Client Services Action Required: No

Date / Time Received: 8/13/2013 3:20:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: INDIAN TREE 8/13/13

Airbill #'s: HD

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

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General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49279
Account: COCSCOG - Olsson Associates - Denver
Project: Indian Tree 8/13/13

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP10719/GN21558	250	0.00	mg/kg	800	830	103.8	70-130%

Associated Samples:

Batch GP10719: D49279-1

(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49279
Account: COCSCOG - Olsson Associates - Denver
Project: Indian Tree 8/13/13

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
HEM Oil and Grease	GP10719/GN21558	D49279-1	mg/kg	251	874	1100	97.1	65-130%

Associated Samples:

Batch GP10719: D49279-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49279
Account: COCSCOG - Olsson Associates - Denver
Project: Indian Tree 8/13/13

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
HEM Oil and Grease	GP10719/GN21558	D49279-1	mg/kg	251	874	1180	7.0	30%

Associated Samples:

Batch GP10719: D49279-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits