Inter-Mountain Labs
Your Environmental Monitoring Partner
1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Date: 8/3/2017

CLIENT: Consolidated Analytical Systems
Project: S.H. Bell-Chicago, IL
Lab Order: S1707420

CASE NARRATIVE

Report ID: S1707420001

Samples 527.169 S4HV1-071217-R, and 527.170 S4HV2-071517-R were received on July 25, 2017.

All samples were received and analyzed within the EPA recommended holding times, except those noted below in this case narrative. Samples were analyzed using the methods outlined in the following references:

"Standard Methods For The Examination of Water and Wastewater", approved method versions
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition
40 CFR Parts 136 and 141
40 CFR Part 50, Appendices B, J, L, and O
Methods indicated in the Methods Update Rule published in the Federal Register Friday, May 18, 2012
ASTM approved and recognized standards

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

Reviewed by: John M. Jacobs
John Jacobs, Project Manager

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Sample Analysis Report

CLIENT: Consolidated Analytical Systems
201 S. Miami Ave
Cleves, OH 45002

Date Reported: 8/3/2017
Report ID: S1707420001

Client Sample ID: 527.169 S4HV1-071217-R
Project: S.H. Bell-Chicago, IL
Matrix: airfilter
COC ID: WEB 10126

Collection Date: 7/12/2017
Date Received: 7/25/2017 10:30:00 AM
Lab ID: S1707420-001
Work Order: S1707420

Analyses	Result	RL	MDL	Qual	Units	Method	Date Analyzed/Init
Field							
Actual Volume	1670				m³	Field	07/12/2017 000
IO-3.5 TSP							
Arsenic	1.74	5	0.628	J	µg/Filter	IO-3.5	07/31/2017 1525 MS
Cadmium	0.67	5	0.19	J	µg/Filter	IO-3.5	07/31/2017 1525 MS
Chromium	52	5	0.165		µg/Filter	IO-3.5	07/31/2017 1525 MS
Lead	13	5	0.00999		µg/Filter	IO-3.5	07/31/2017 1525 MS
Manganese	1830	5	0.0535		µg/Filter	IO-3.5	07/31/2017 1525 MS
Nickel	3.22	5	0.16	J	µg/Filter	IO-3.5	07/31/2017 1525 MS
Vanadium	1.87	5	0.388	J	µg/Filter	IO-3.5	07/31/2017 1525 MS
Filter Metals Concentration							
Arsenic	1.04	2.99	0.376	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Cadmium	0.403	2.99	0.114	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Chromium	30.8	2.99	0.0988		ng/m³	IO-3.5	08/03/2017 1416 JJ
Lead	0.00750	0.00299	0.00000598		µg/m³	IO-3.5	08/03/2017 1416 JJ
Manganese	1100	2.99	0.032		ng/m³	IO-3.5	08/03/2017 1416 JJ
Nickel	1.93	2.99	0.0958	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Vanadium	1.12	2.99	0.232	J	ng/m³	IO-3.5	08/03/2017 1416 JJ

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calculated Value
E	Value above quantitation range	G	Analyzed at IML Gillette laboratory
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
L	Analyzed by another laboratory	M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit	O	Outside the Range of Dilutions
S	Spike Recovery outside accepted recovery limits	X	Matrix Effect

Reviewed by: John M. Jacobs
John Jacobs, Project Manager

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Sample Analysis Report

CLIENT: Consolidated Analytical Systems
201 S. Miami Ave
Cleves, OH 45002

Date Reported: 8/3/2017
Report ID: S1707420001

Client Sample ID: 527.170 S4HV2-071517-R
Project: S.H. Bell-Chicago, IL
Matrix: airfilter
COC ID: WEB 10126

Collection Date: 7/15/2017
Date Received: 7/25/2017 10:30:00 AM
Lab ID: S1707420-002
Work Order: S1707420

Analyses	Result	RL	MDL	Qual	Units	Method	Date Analyzed/Init
Field							
Actual Volume	1655				m³	Field	07/15/2017 000
IO-3.5 TSP							
Arsenic	2.66	5	0.628	J	µg/Filter	IO-3.5	07/31/2017 1536 MS
Cadmium	0.22	5	0.19	J	µg/Filter	IO-3.5	07/31/2017 1536 MS
Chromium	52	5	0.165		µg/Filter	IO-3.5	07/31/2017 1536 MS
Lead	7	5	0.00999		µg/Filter	IO-3.5	07/31/2017 1536 MS
Manganese	112	5	0.0535		µg/Filter	IO-3.5	07/31/2017 1536 MS
Nickel	1.00	5	0.16	J	µg/Filter	IO-3.5	07/31/2017 1536 MS
Vanadium	0.843	5	0.388	J	µg/Filter	IO-3.5	07/31/2017 1536 MS
Filter Metals Concentration							
Arsenic	1.60	3.02	0.379	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Cadmium	0.133	3.02	0.115	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Chromium	31.4	3.02	0.0997		ng/m³	IO-3.5	08/03/2017 1416 JJ
Lead	0.00425	0.00302	0.00000604		µg/m³	IO-3.5	08/03/2017 1416 JJ
Manganese	68.0	3.02	0.0323		ng/m³	IO-3.5	08/03/2017 1416 JJ
Nickel	0.600	3.02	0.0967	J	ng/m³	IO-3.5	08/03/2017 1416 JJ
Vanadium	0.509	3.02	0.234	J	ng/m³	IO-3.5	08/03/2017 1416 JJ

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:

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E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
L	Analyzed by another laboratory
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits
C	Calculated Value
G	Analyzed at IML Gillette laboratory
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O	Outside the Range of Dilutions
X	Matrix Effect

Reviewed by: John M. Jacobs
John Jacobs, Project Manager

Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

All shaded fields must be completed.
This is a legal document; any misrepresentation may be construed as fraud.

Page 1 of 1
#WEB 10126

Client Name	Consolidated Analytical Systems (CAS)
Project Identification	S.H. Bell - Chicago, IL
Sampler (Signature/Attestation of Authenticity)	[signature]
Telephone #	513-542-1200
Report Address	201 S. Miami Avenue Cleves, OH 45002
Contact Name	Meredith Cloran
Email	mcloran@cas-en.com
Phone	513-542-1200
Invoice Address	201 S. Miami Avenue Cleves, OH 45002
Purchase Order #	17-2507
Quote #	CAS1702231

ANALYSES / PARAMETERS

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	PM10 Gravimetric A	IO-3.1 for air filters	IO-3.5 Metals on air						REMARKS
1	B170742002	7/12/17		S4HV1-071217-R	FT	1	x	x	x						See Field envelope
2	002	7/15/17		S4HV2-071517-R	FT	1	x	x	x						See Field envelope
3				MMDDYY											
4															
5															
6				Date Mailed = 7/18/17											
7															
8															
9															
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	[signature] Steve Kraus	7/18/17	9:30	Mary Hannegan IML	7/25/17	1030
	Mary Hannegan IML	7/27/17	1122	Kathy Bran	7.27.17	11:24

SHIPPING INFO	MATRIX CODES		TURN AROUND TIMES	COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
☐ UPS	Water	WT	Check desired service	Compliance Monitoring ?	Y	Collected: 7/17/17	
☐ FedEx	Soil	SL	☒ Standard turnaround	Program (SDWA, NPDES,...)	CAA 114a		
☐ USPS	Solid	SD	☐ RUSH - 5 Working Days	PWSID / Permit #		Filter identification(mmddyy)	Filter number(---,---)
☐ Hand Carried	Filter	FT	☐ URGENT - < 2 Working Days	Chlorinated?	N	S4HV1-071217-R	527169
☐ Other	Other	OT	*Rush & Urgent Surcharges will be applied*	Sample Disposal: Lab x	Client	S4HV2-071517-R	527170

INTER-MOUNTAIN LABS

Survey Meter # Model 2241-2; SN 182115
pH strip lot # HC547770
Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: OTC ROI? Yes (No)
Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. *(If more than 8 coolers, please write on back)*

Temps Observed (°C):	—							
Temps Corrected (°C):	—							

Acceptable is: 0.1° to 10°C *for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at receipt.*

Client contact for temperatures outside method criteria must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No (N/A)
4 COC Number (If applicable): WCB 10126
5 Do the number of bottles agree with the COC? (Yes) No N/A
6 Were the samples received intact? *(no broken bottles, leaks, etc.)* (Yes) No N/A
7 Were the sample custody seals intact? Yes No (N/A)
8 Is the COC properly completed, legible, and signed? (Yes) No

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate? (Yes) No
2 Did the bottle labels correspond with the COC information? (Yes) No
3 Samples collected in method-prescribed containers? (Yes) No
4 Sample Preservation:

pH at Receipt:	Final pH (if added in lab):	Preservative/Lot#	Date/Time Added:
_____ Total Metals	_____ Total Metals	HNO_3 _____	_____
_____ Diss Metals	_____ Diss Metals	*Filtered and preserved in metals*	*Filtered and preserved in metals*
_____ Nutrient	_____ Nutrient	H_2SO_4 _____	
_____ Cyanide	_____ Cyanide	NaOH _____	
_____ Sulfide	_____ Sulfide	ZnAcet _____	
_____ Phenol	_____ Phenol	H_2SO_4 _____	

5 VOA vials have <6mm headspace? Yes No (N/A)
6 Were all analyses within holding time at the time of receipt? (Yes) No
7 Specially requested detection limits (RLs) assigned? Yes No (N/A)
8 Have rush or project due dates been checked and accepted? Yes No (N/A)
9 Do samples require subcontracted analyses? Yes (No)
If "Yes", which type of subcontracting is required? **General** **Customer-Specified** **Certified**

Sample Receipt, Verification, Login, Labeling & Distribution completed by *(initials)*: KB
Set ID: S17074 20

Discrepancy Documentation ***(use back of sheet for notes on discrepancies)***
Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: _____ Method of Contact: __ Phone: _____
Initiated By: _____ Date/Time: _____ __ Email: _____
Problem:

Resolution: