



ANALYTICAL SUMMARY REPORT


OST-003

August 06, 2015

Defenders of the Black Hills
PO Box 2003
Rapid City, SD 57709

Work Order: G15070702

Project Name: PSMSD & CCHPSD

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of: CROW BUTTE RESOURCES, INC. (License Renewal for the In Situ Leach Facility, Crawford, Nebraska)	
	ASLBP #: 08-867-02-OLA-BD01
	Docket #: 04008943
	Exhibit #: OST-003-00-BD01
	Admitted: 9/4/2015
	Rejected:
Other:	Identified: 8/25/2015 Withdrawn: Stricken:

Energy Laboratories Inc. Gillette WY received the following 2 samples for Defenders of the Black Hills on 7/31/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G15070702-001	PSMSD	07/29/15 17:02	07/31/15	Drinking Water	Uranium, Isotopic, Total
G15070702-002	CCHPSD	07/29/15 15:40	07/31/15	Drinking Water	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted.

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these tests results, please call.

Report Approved By:


Project Manager

Digitally signed by
Tracey Archer
Date: 2015.08.06 12:59:00 -06:00



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Billings, MT 800.735.4489 • Casper, WY 888.235.0515
College Station, TX 888.690.2218 • Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

CLIENT: Defenders of the Black Hills
Project: PSMSD & CCHPSD
Work Order: G15070702

Report Date: 08/06/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.



LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Defenders of the Black Hills
Project: PSMSD & CCHPSD
Lab ID: G15070702-001
Client Sample ID: PSMSD

Report Date: 08/06/15
Collection Date: 07/29/15 17:02
Date Received: 07/31/15
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Uranium 234	15.2	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 234 precision (±)	3.0	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 234 MDC	0.08	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235	0.7	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235 precision (±)	0.3	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235 MDC	0.1	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238	8.1	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238 precision (±)	1.6	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238 MDC	0.08	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Defenders of the Black Hills
Project: PSMSD & CCHPSD
Lab ID: G15070702-002
Client Sample ID: CCHPSD

Report Date: 08/06/15
Collection Date: 07/29/15 15:40
Date Received: 07/31/15
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Uranium 234	8.7	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 234 precision (±)	1.7	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 234 MDC	0.09	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235	0.2	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235 precision (±)	0.2	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 235 MDC	0.1	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238	3.7	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238 precision (±)	0.7	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca
Uranium 238 MDC	0.09	pCi/L				A7500-U C	08/05/15 11:18 / eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Defenders of the Black Hills

Report Date: 08/06/15

Project: PSMSD & CCHPSD

Work Order: G15070702

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A7500-U C							Batch: RA-U-ISO-0725		
Lab ID: LCS-RA-U-ISO-0725	Laboratory Control Sample				Run: EGG-ORTEC_150803A		08/05/15 11:18		
Uranium 238	11.2	pCi/L		94	80	120			
Lab ID: G15070702-002AMS	Sample Matrix Spike				Run: EGG-ORTEC_150803A		08/05/15 11:18		
Uranium 238	29.4	pCi/L		106	80	120			
Lab ID: G15070702-002AMSD	Sample Matrix Spike Duplicate				Run: EGG-ORTEC_150803A		08/05/15 11:18		
Uranium 238	24.8	pCi/L		87	80	120	17	20	
Lab ID: MB-RA-U-ISO-0725	Method Blank				Run: EGG-ORTEC_150803A		08/05/15 11:18		
Uranium 234	0.4	pCi/L							
Uranium 234 precision (±)	0.2	pCi/L							
Uranium 234 MDC	0.2	pCi/L							
Uranium 235	0.2	pCi/L							U
Uranium 235 precision (±)	0.1	pCi/L							
Uranium 235 MDC	0.2	pCi/L							
Uranium 238	0.1	pCi/L							U
Uranium 238 precision (±)	0.1	pCi/L							
Uranium 238 MDC	0.2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

Defenders of the Black Hills

G15070702

Login completed by: Tracey Archer

Date Received: 7/31/2015

Reviewed by: BL2000\kscottruff

Received by: kls

Reviewed Date: 8/3/2015

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	23.4°C No Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

None

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible)

Company Name: **Defenders of the Black Hills**

Report Mail Address (Required):

**PO Box 2003
Rapid City SD 57709**

☐ No Hard Copy Email:

Invoice Address (Required):

**PO Box 2003
Rapid City, SD 57709**

☐ No Hard Copy Email:

Special Report/Formats:

☐ DW ☐ EDD/EDT (Electronic Data)
☐ POTW/MWTP ☐ Format:
☐ State: ☐ LEVEL IV
☐ Other: ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

Project Name, PWS, Permit, Etc.
PSMSD - CCHPSD

Contact Name: **Charmaine**

Sample Origin
State: **SD**

EPA/State Compliance:
Yes ☐ No ☐
Sampler: (Please Print)

Phone/Fax: **605-342-1120**

Cell:

Purchase Order:

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELL prior to
RUSH sample submittal
for charges and
scheduling - See
Instruction Page

Comments:

**NO CHANGE
let Tracey
know when
received**

Shipped by
Cooler ID(s): **17PS**

Receipt Temp
22.4 °C

On Ice: **Y**

Custody Seal
On Bottle **Y**
On Cooler **N**

Intact **Y**
Signature **N**
Match **N**

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED	Standard Turnaround (TAT)	Comments:	Shipped by	Receipt Temp	Custody Seal	Intact	Signature	Match
1 PSMSD	7/29/15	5:02pm	LDW									
2 CCHPSD	7/29/15	3:40pm	LDW									
3												
4												
5												
6												
7												
8												
9												
10												

LABORATORY USE ONLY

Custody
Record
MUST be
Signed

Relinquished by (print):
Charmaine Whitson

Date/Time:
7/30/15 9:30a

Signature:
C. Whitson

Received by (print):

Date/Time:

Signature:

Sample Disposal:

Return to Client:

Lab Disposal:

Received by Laboratory:

Date/Time:

Signature: