Mountain States ACCUTEST LABORATORIES

05/04/15

Technical Report for

Confluence Energy

Grizzly Sample 4-23-15

Grizzly Sample

Accutest Job Number: D70070

Sampling Date: 04/23/15

Report to:

Confluence Energy
PO Box 1387
Kremmling, CO 80459
mark@confluenceenergy.com

ATTN: Mark Mathis

Total number of pages in report: **73**

NELAP ACCREDITED TNI LABORATORY

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

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), LA (LA150028), TX (T104704511), WY

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Sample Summary

Confluence Energy

Job No: D70070

Grizzly Sample 4-23-15
Project No: Grizzly Sample

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D70070-1	04/23/15	10:30	MJM	04/24/15	SO	Soil	GRIZZLY SITE SAMPLE
D70070-1A	04/23/15	10:30	MJM	04/24/15	SO	Soil	GRIZZLY SITE SAMPLE

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Confluence Energy	**Job No**	D70070
Site:	Grizzly Sample 4-23-15	**Report Date**	5/4/2015 3:28:52 PM

On 04/24/2015, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 23.1 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D70070 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.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO **Batch ID:** M:MSK2726

- The data for SW846 8260C meets quality control requirements.
- D70070-1: Analysis performed at Accutest Laboratories, Marlborough, MA.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: SO **Batch ID:** OP11651

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- D70070-1: Dilution required due to matrix interference. Internal standard failure without dilution.

Volatiles by GC By Method SW846 8015B

Matrix: SO **Batch ID:** GGB1609

- All samples were analyzed within the recommended method holding time.
- Sample(s) D70071-1MS, D70071-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70070-1 have surrogates outside control limits. Probable cause due to matrix interference.
- D70070-1 for 1,2,4 Trichlorobenzene: Outside control limits due to possible matrix interference.

Extractables by GC By Method SW846-8015B

Matrix: SO **Batch ID:** OP11638

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D70071-1MS, D70071-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP15788

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70037-1AMS, D70037-1AMSD, D70037-1ASDL were used as the QC samples for the metals analysis.

Matrix: SO **Batch ID:** MP15786

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70069-1MS, D70069-1MSD, D70069-1SDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Barium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- The serial dilution RPD(s) for Lead, Selenium, Chromium, Nickel, Zinc are outside control limits for sample MP15786-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP15786-SD1 for Nickel,Zinc, Chromium: Serial dilution indicates possible matrix interference.

Metals By Method SW846 6020A

Matrix: SO **Batch ID:** MP15787

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70069-1MS, D70069-1MSD, D70069-1SDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471B

Matrix: SO **Batch ID:** MP15774

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70070-1MS, D70070-1MSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D1498-76M

Matrix: SO **Batch ID:** GN29686

- Sample(s) D70069-1DUP were used as the QC samples for the Redox Potential Vs H2 analysis.

Wet Chemistry By Method SW846 3060A/7196A

Matrix: SO **Batch ID:** GP15199

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70069-1MSD, D70069-1DUP, D70069-1MS were used as the QC samples for the Chromium, Hexavalent analysis.
- The matrix spike (MS) recovery(s) and matrix spike duplicate (MSD) recovery(s) of Chromium, Hexavalent are outside control limits. Spike recovery indicates possible matrix interference.
- The duplicate RPD(s) for Chromium, Hexavalent are outside control limits for sample GP15199-D1. RPD acceptable due to low duplicate and sample concentrations.
- The RPD(s) for the MS and MSD recoveries of Chromium, Hexavalent are outside control limits for sample GP15199-S2. High RPD due to possible sample nonhomogeneity.

Wet Chemistry By Method SW846 3060A/7196A M

Matrix: SO **Batch ID:** R27733

- The data for SW846 3060A/7196A M meets quality control requirements.
- D70070-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 9045D

Matrix: SO **Batch ID:** GN29653

- The following samples were run outside of holding time for method SW846 9045D: D70070-1

Wet Chemistry By Method USDA HANDBOOK 60

Matrix: SO **Batch ID:** MP15788

- D70070-1A for Sodium Adsorption Ratio: Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]

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.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Accutest Mountain States	**Job No**	D70070
Site:	CONECOK: Grizzly Sample 4-23-15	**Report Date**	5/4/2015 9:40:19 AM

1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 04/23/2015 and were received at Accutest on 04/24/2015 properly preserved, at 1.5 Deg. C and intact. These Samples received an Accutest job number of D70070. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO **Batch ID:** MSK2726

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70069-1MS, D70069-1MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D70070).

Summary of Hits

Job Number: D70070
Account: Confluence Energy
Project: Grizzly Sample 4-23-15
Collected: 04/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D70070-1	**GRIZZLY SITE SAMPLE**					
Ethylbenzene [a]		35.1 J	110	21	ug/kg	SW846 8260C
Xylene (total) [a]		201	110	19	ug/kg	SW846 8260C
Benzo(b)fluoranthene [b]		137	100	49	ug/kg	SW846 8270C BY SIM
Chrysene [b]		528	100	49	ug/kg	SW846 8270C BY SIM
Fluorene [b]		1220	100	49	ug/kg	SW846 8270C BY SIM
Naphthalene [b]		618	100	61	ug/kg	SW846 8270C BY SIM
Pyrene [b]		467	100	49	ug/kg	SW846 8270C BY SIM
TPH-GRO (C6-C10)		29.7	9.9	5.0	mg/kg	SW846 8015B
TPH-DRO (C10-C28)		3650	200	150	mg/kg	SW846-8015B
Arsenic		4.1	0.096		mg/kg	SW846 6020A
Barium		5390	4.8		mg/kg	SW846 6010C
Chromium		15.6	0.96		mg/kg	SW846 6010C
Copper		15.6	4.8		mg/kg	SW846 6010C
Nickel		13.0	2.9		mg/kg	SW846 6010C
Zinc		47.7	2.9		mg/kg	SW846 6010C
Specific Conductivity		1000	1.0		umhos/cm	SM 2510B-2011 MOD
Chromium, Trivalent [c]		15.6	2.0		mg/kg	SW846 3060A/7196A M
Redox Potential Vs H2		377			mv	ASTM D1498-76M
pH		9.59			su	SW846 9045D
D70070-1A	**GRIZZLY SITE SAMPLE**					
Calcium		24.0	2.0		mg/l	SW846 6010C
Magnesium		4.36	1.0		mg/l	SW846 6010C
Sodium		214	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio [d]		10.5			ratio	USDA HANDBOOK 60

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Dilution required due to matrix interference. Internal standard failure without dilution.
(c) Calculated as: (Chromium) - (Chromium, Hexavalent)
(d) Calculated as: (Na meq/L) / sqrt [(Ca meq/L) + (Mg meq/L)/2]

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
Method:	SW846 8260C	**Percent Solids:**	n/a [a]
Project:	Grizzly Sample 4-23-15		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	K87419.D	1	05/01/15	AMA	n/a	n/a	M:MSK2726
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.07 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	28	21	ug/kg	
108-88-3	Toluene	ND	280	22	ug/kg	
100-41-4	Ethylbenzene	35.1	110	21	ug/kg	J
1330-20-7	Xylene (total)	201	110	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		65-141%
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	102%		63-137%

(a) All results reported on a wet weight basis.
(b) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
Method:	SW846 8270C BY SIM SW846 3546	**Percent Solids:**	n/a [a]
Project:	Grizzly Sample 4-23-15		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [b]	3G23550.D	4	04/30/15	DC	04/29/15	OP11651	E3G1176
Run #2							

	Initial Weight	Final Volume
Run #1	5.10 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	100	49	ug/kg	
120-12-7	Anthracene	ND	100	49	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	49	ug/kg	
205-99-2	Benzo(b)fluoranthene	137	100	49	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	49	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	49	ug/kg	
218-01-9	Chrysene	528	100	49	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	49	ug/kg	
206-44-0	Fluoranthene	ND	100	49	ug/kg	
86-73-7	Fluorene	1220	100	49	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	78	ug/kg	
91-20-3	Naphthalene	618	100	61	ug/kg	
129-00-0	Pyrene	467	100	49	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		11-164%
321-60-8	2-Fluorobiphenyl	81%		14-138%
1718-51-0	Terphenyl-d14	110%		35-139%

(a) All results reported on a wet weight basis.
(b) Dilution required due to matrix interference. Internal standard failure without dilution.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
Method:	SW846 8015B	**Percent Solids:**	n/a [a]
Project:	Grizzly Sample 4-23-15		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB29908.D	1	04/27/15	EP	n/a	n/a	GGB1609
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	29.7	9.9	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	155% [b]		60-140%

(a) All results reported on a wet weight basis.
(b) Outside control limits due to possible matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
Method:	SW846-8015B SW846 3546	**Percent Solids:**	n/a [a]
Project:	Grizzly Sample 4-23-15		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD44650.D	20	04/30/15	GN	04/27/15	OP11638	GFD1924
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	3650	200	150	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		20-130%

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
		Percent Solids:	n/a [a]
Project:	Grizzly Sample 4-23-15		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.1	0.096	mg/kg	5	04/28/15	05/01/15	NT	SW846 6020A [4]	SW846 3050B [7]
Barium	5390	4.8	mg/kg	5	04/28/15	04/29/15	KV	SW846 6010C [3]	SW846 3050B [6]
Cadmium	< 0.96	0.96	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Chromium	15.6	0.96	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Copper	15.6	4.8	mg/kg	5	04/28/15	04/29/15	KV	SW846 6010C [3]	SW846 3050B [6]
Lead	< 4.8	4.8	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Mercury	< 0.077	0.077	mg/kg	1	04/27/15	04/28/15	LH	SW846 7471B [1]	SW846 7471B [5]
Nickel	13.0	2.9	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Selenium	< 4.8	4.8	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Silver	< 2.9	2.9	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]
Zinc	47.7	2.9	mg/kg	1	04/28/15	04/28/15	JB	SW846 6010C [2]	SW846 3050B [6]

(1) Instrument QC Batch: MA6058
(2) Instrument QC Batch: MA6061
(3) Instrument QC Batch: MA6062
(4) Instrument QC Batch: MA6072
(5) Prep QC Batch: MP15774
(6) Prep QC Batch: MP15786
(7) Prep QC Batch: MP15787

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
		Percent Solids:	n/a [a]
Project:	Grizzly Sample 4-23-15		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	1000	1.0	umhos/cm	1	04/28/15	JD	SM 2510B-2011 MOD
Chromium, Hexavalent	< 1.0	1.0	mg/kg	1	05/02/15	AK	SW846 3060A/7196A
Chromium, Trivalent [b]	15.6	2.0	mg/kg	1	05/02/15	AK	SW846 3060A/7196A M
Redox Potential Vs H2	377		mv	1	04/29/15	JD	ASTM D1498-76M
pH	9.59		su	1	04/27/15 08:45	TB	SW846 9045D

(a) All results reported on a wet weight basis.
(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1A	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
		Percent Solids:	n/a [a]
Project:	Grizzly Sample 4-23-15		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	24.0	2.0	mg/l	1	04/28/15	04/28/15	JB	SW846 6010C [1]	SW846 3010A/M [2]
Magnesium	4.36	1.0	mg/l	1	04/28/15	04/28/15	JB	SW846 6010C [1]	SW846 3010A/M [2]
Sodium	214	2.0	mg/l	1	04/28/15	04/28/15	JB	SW846 6010C [1]	SW846 3010A/M [2]

(1) Instrument QC Batch: MA6061
(2) Prep QC Batch: MP15788

(a) All results reported on a wet weight basis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GRIZZLY SITE SAMPLE		
Lab Sample ID:	D70070-1A	**Date Sampled:**	04/23/15
Matrix:	SO - Soil	**Date Received:**	04/24/15
		Percent Solids:	n/a [a]
Project:	Grizzly Sample 4-23-15		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio [b]	10.5		ratio	1	04/28/15 17:26	JB	USDA HANDBOOK 60

(a) All results reported on a wet weight basis.
(b) Calculated as: (Na meq/L) / sqrt [(Ca meq/L) + (Mg meq/L)/2]

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

PAGE ___ OF ___

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL. 303-425-6021 FAX. 303-425-6854
www.accutest.com

FED-EX Tracking # | Bottle Order Control # D70070
Accutest Quote # | Accutest Job # D70069BS

Client / Reporting Information

Company Name: Confluence Energy
Street Address: 1809 Hwy 9 - PO Box 1387
City: Kremmling Colorado
Project Contact: Mark Mathis
Phone #: 970-724-9839
Sampler(s) Name(s):

Project Information

Project Name: Grizzly sample 4-23-15
Street:
City: Walden State: CO
Project #: Grizzly sample
Client Purchase Order #:
Project Manager: Jarah Levine

Billing Information (If different from Report to)

Company Name:
Street Address:
City:
Attention:

Requested Analysis (see TEST CODE sheet)

CO Table 910: X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
7	Grizzly site sample		4/23/15	~~0800~~ 10:30	MJM	Soil										01

Turnaround Time (Business days)

- [ ] Std. 15 Business Days
- [ ] Std. 10 Business Days
- [x] 5 Day RUSH
- [ ] 3 Day Emergency
- [ ] 2 Day Emergency
- [ ] 1 Day Emergency
- [ ]

Approved By (Accutest PM): / Date:
Stand price

Emergency & Rush T/A data available VIA Labtink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] COMMBN
- [ ] COMMBN+
- [ ]
- [ ] State Forms Required
- [ ] Send Forms to State
- [ ] Report by Fax
- [ ] Report by PDF
- [ ] EDD Format

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial BN = Results/QC/Narrative (+ = chromatograms)

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 mark	8:00	1 [signature] 4-24-15	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not Intact	Preserved where applicable	On Ice	Cooler Temp.
5		5		[x] Intact [ ] Not Intact	[ ]	[ ]	23.1

D70070: Chain of Custody
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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D70070 **Client:** CONFLUENCE ENERGY **Project:** GRIZZLY SAMPLE

Date / Time Received: 4/24/2015 4:35:00 PM **Delivery Method:** **Airbill #'s:** hd

Cooler Temps (Initial/Adjusted): #1: (23.1/23.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Comments

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Mountain States ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11651-MB	3G23512.D	1	04/29/15	DC	04/29/15	OP11651	E3G1174

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

D70070-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.3	2.1	ug/kg	
120-12-7	Anthracene	ND	4.3	2.1	ug/kg	
56-55-3	Benzo(a)anthracene	ND	4.3	2.1	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	4.3	2.1	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	4.3	2.1	ug/kg	
50-32-8	Benzo(a)pyrene	ND	4.3	2.1	ug/kg	
218-01-9	Chrysene	ND	4.3	2.1	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	4.3	2.1	ug/kg	
206-44-0	Fluoranthene	ND	4.3	2.1	ug/kg	
86-73-7	Fluorene	ND	4.3	2.1	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.3	3.3	ug/kg	
91-20-3	Naphthalene	ND	4.3	2.6	ug/kg	
129-00-0	Pyrene	ND	4.3	2.1	ug/kg	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	85%	11-164%
321-60-8	2-Fluorobiphenyl	84%	14-138%
1718-51-0	Terphenyl-d14	106%	35-139%

Blank Spike/Blank Spike Duplicate Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11651-BS	3G23513.D	1	04/29/15	DC	04/29/15	OP11651	E3G1174
OP11651-BSD	3G23514.D	1	04/29/15	DC	04/29/15	OP11651	E3G1174

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

D70070-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	83.3	75.7	91	70.3	84	7	42-130/30
120-12-7	Anthracene	83.3	90.0	108	88.2	106	2	45-130/30
56-55-3	Benzo(a)anthracene	83.3	90.9	109	92.2	111	1	49-137/30
205-99-2	Benzo(b)fluoranthene	83.3	83.3	100	85.7	103	3	43-146/30
207-08-9	Benzo(k)fluoranthene	83.3	89.2	107	85.9	103	4	27-146/30
50-32-8	Benzo(a)pyrene	83.3	89.2	107	89.7	108	1	53-130/30
218-01-9	Chrysene	83.3	84.1	101	83.9	101	0	61-130/30
53-70-3	Dibenzo(a,h)anthracene	83.3	82.4	99	82.8	99	0	59-130/30
206-44-0	Fluoranthene	83.3	89.8	108	90.6	109	1	48-130/30
86-73-7	Fluorene	83.3	82.4	99	77.9	93	6	44-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	83.3	79.7	96	80.6	97	1	58-130/30
91-20-3	Naphthalene	83.3	78.1	94	71.1	85	9	56-130/30
129-00-0	Pyrene	83.3	91.0	109	92.1	111	1	53-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	88%	79%	11-164%
321-60-8	2-Fluorobiphenyl	88%	78%	14-138%
1718-51-0	Terphenyl-d14	101%	99%	35-139%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1609-MB	GB29893.D	1	04/27/15	EP	n/a	n/a	GGB1609

The QC reported here applies to the following samples: **Method:** SW846 8015B

D70070-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	9.9	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
120-82-1	1,2,4-Trichlorobenzene	103%	60-140%

Blank Spike Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1609-BS	GB29894.D	1	04/27/15	EP	n/a	n/a	GGB1609

The QC reported here applies to the following samples: **Method:** SW846 8015B

D70070-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	109	107	98	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	103%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D70071-1MS	GB29896.D	1	04/27/15	EP	n/a	n/a	GGB1609
D70071-1MSD	GB29897.D	1	04/27/15	EP	n/a	n/a	GGB1609
D70071-1	GB29895.D	1	04/27/15	EP	n/a	n/a	GGB1609

The QC reported here applies to the following samples: **Method:** SW846 8015B

D70070-1

CAS No.	Compound	D70071-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	14.2		146	153	95	146	150	93	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D70071-1	Limits
120-82-1	1,2,4-Trichlorobenzene	116%	111%	111%	60-140%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11638-MB	FH031380.D	1	04/27/15	GN	04/27/15	OP11638	GFH1357

The QC reported here applies to the following samples: **Method:** SW846-8015B

D70070-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	7.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	116%	20-130%

Blank Spike Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11638-BS	FH031382.D	1	04/27/15	GN	04/27/15	OP11638	GFH1357

The QC reported here applies to the following samples: **Method:** SW846-8015B

D70070-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	250	165	66	32-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	92%	20-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70070
Account: CONECOK Confluence Energy
Project: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11638-MS	FH031384.D	1	04/27/15	GN	04/27/15	OP11638	GFH1357
OP11638-MSD	FH031386.D	1	04/27/15	GN	04/27/15	OP11638	GFH1357
D70071-1	FH031388.D	1	04/27/15	GN	04/27/15	OP11638	GFH1357

The QC reported here applies to the following samples: **Method:** SW846-8015B

D70070-1

CAS No.	Compound	D70071-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	273		292	681	140	293	630	122	8	20-152/54

CAS No.	Surrogate Recoveries	MS	MSD	D70071-1	Limits
84-15-1	o-Terphenyl	108%	92%	69%	20-130%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15774 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 04/27/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.083	.00088	.0067	0.000058	<0.083

Associated samples MP15774: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15774
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/27/15

Metal	D70070-1 Original	MS	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.032	0.34	0.317	97.0	75-125

Associated samples MP15774: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15774 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 04/27/15

Metal	D70070-1 Original	MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
Mercury	0.032	0.36	0.323	101.7	5.7	20

Associated samples MP15774: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15774
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/27/15

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.31	0.333	93.0	80-120

Associated samples MP15774: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/28/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	1.1	1.7		
Antimony	3.0	.21	.82		
Arsenic	2.5	.38	2.1		
Barium	1.0	.02	.03	0.19	<1.0
Beryllium	1.0	.09	.16		
Boron	5.0	.08	.29		
Cadmium	1.0	.02	.1	0.020	<1.0
Calcium	40	.24	9.6		
Chromium	1.0	.03	.07	0.050	<1.0
Cobalt	0.50	.05	.12		
Copper	1.0	.08	.48	0.14	<1.0
Iron	7.0	.15	.69		
Lead	5.0	.21	.6	0.090	<5.0
Lithium	0.50	.04	.07		
Magnesium	20	.68	3.9		
Manganese	0.50	.05	.07		
Molybdenum	1.0	.04	.36		
Nickel	3.0	.05	.24	-0.010	<3.0
Phosphorus	10	1.5	4.3		
Potassium	200	9.9	6		
Selenium	5.0	.71	1	-0.19	<5.0
Silicon	5.0	.47	.91		
Silver	3.0	.03	.05	0.030	<3.0
Sodium	40	.73	1.5		
Strontium	5.0	.001	.03		
Thallium	1.0	.18	.86		
Tin	5.0	1.2	1.2		
Titanium	1.0	.01	.27		
Uranium	5.0	.29	.44		
Vanadium	1.0	.04	.07		
Zinc	3.0	.04	.35	0.23	<3.0

Associated samples MP15786: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/28/15

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	4580	4510	198	201.8(a)	75-125
Beryllium					
Boron					
Cadmium	0.90	47.7	49.5	94.5	75-125
Calcium					
Chromium	19.6	69.8	49.5	101.3	75-125
Cobalt					
Copper	29.5	79.6	49.5	101.3	75-125
Iron					
Lead	5.6	96.5	99.1	91.7	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	19.9	64.8	49.5	90.6	75-125
Phosphorus					
Potassium					
Selenium	2.2	101	99.1	99.7	75-125
Silicon					
Silver	0.0	16.6	19.8	83.8	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	75.8	126	49.5	101.3	75-125

Associated samples MP15786: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	4580	4690	202	287.1(a)	3.9	20
Beryllium						
Boron						
Cadmium	0.90	46.6	50.5	90.5	2.3	20
Calcium						
Chromium	19.6	68.3	50.5	96.4	2.2	20
Cobalt						
Copper	29.5	83.2	50.5	106.5	4.4	20
Iron						
Lead	5.6	94.9	101	88.4	1.7	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	19.9	63.0	50.5	85.3	2.8	20
Phosphorus						
Potassium						
Selenium	2.2	102	101	98.8	1.0	20
Silicon						
Silver	0.0	16.1	20.2	79.7	3.1	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	75.8	118	50.5	83.6	6.6	20

Associated samples MP15786: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786 Methods: SW846 6010C
Matrix Type: SOLID Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original MSD	Spikelot ICPALL2 % Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	204	200	102.0	80-120
Beryllium				
Boron				
Cadmium	47.0	50	94.0	80-120
Calcium				
Chromium	52.4	50	104.8	80-120
Cobalt				
Copper	46.9	50	93.8	80-120
Iron				
Lead	96.2	100	96.2	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	46.5	50	93.0	80-120
Phosphorus				
Potassium				
Selenium	107	100	107.0	80-120
Silicon				
Silver	19.7	20	98.5	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	47.2	50	94.4	80-120

Associated samples MP15786: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/28/15

Metal	D70069-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	44000	42400	7.5	0-10
Beryllium				
Boron				
Cadmium	8.70	9.00	3.4	0-10
Calcium				
Chromium	188	215	14.1*(a)	0-10
Cobalt				
Copper	284	270	4.4	0-10
Iron				
Lead	53.4	67.5	26.4 (b)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	191	227	18.3*(a)	0-10
Phosphorus				
Potassium				
Selenium	21.2	67.0	216.0(b)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	729	911	25.0*(a)	0-10

Associated samples MP15786: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15786 Methods: SW846 6010C
Matrix Type: SOLID Units: ug/l

Prep Date: 04/28/15

	D70069-1		QC
Metal	Original	SDL 1:5 %DIF	Limits

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15787
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 04/28/15

Metal	RL	IDL	MDL	MB raw	final
Arsenic	0.10	.0085	.024	-0.0088	<0.10

Associated samples MP15787: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15787
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Arsenic	6.3	111	99.1	105.7	75-125

Associated samples MP15787: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15787
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 04/28/15

Metal	D70069-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Arsenic	6.3	113	101	105.6	1.8	20

Associated samples MP15787: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15787
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 04/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Arsenic	96.2	100	96.2	80-120

Associated samples MP15787: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15787
Matrix Type: SOLID

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/28/15

Metal	D70069-1 Original	SDL 5:25	%DIF	QC Limits
Arsenic	60.7	59.6	1.8	0-10

Associated samples MP15787: D70070-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	55	65		
Antimony	150	11	44		
Arsenic	130	19	60		
Barium	50	1	2		
Beryllium	50	4.5	8		
Boron	250	4	18		
Cadmium	50	1	4		
Calcium	2000	12	50	0.50	<2000
Chromium	50	1.5	3.5		
Cobalt	25	2.5	6		
Copper	50	4	19		
Iron	350	7.5	35		
Lead	250	11	25		
Lithium	25	2	3.5		
Magnesium	1000	34	200	15.5	<1000
Manganese	25	2.5	4.5		
Molybdenum	50	2	18		
Nickel	150	2.5	14		
Phosphorus	500	75	170		
Potassium	5000	500	360		
Selenium	250	36	50		
Silicon	250	24	42		
Silver	150	1.5	3		
Sodium	2000	37	70	134	<2000
Strontium	25	.05	1.5		
Thallium	50	9	40		
Tin	250	60	60		
Titanium	50	.5	14		
Uranium	250	15	22		
Vanadium	50	2	3		
Zinc	150	2	18		

Associated samples MP15788: D70070-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	D70037-1A Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	355000	490000	125000	108.0	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	145000	274000	125000	103.2	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	105000	236000	125000	104.8	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP15788: D70070-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	D70037-1A Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	D70037-1A Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	355000	497000	125000	113.6	1.4	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	145000	280000	125000	108.0	2.2	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	105000	241000	125000	108.8	2.1	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP15788: D70070-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	D70037-1A Original MSD	Spikelot ICPALL2 % Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	135000	125000	108.0	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	128000	125000	102.4	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	129000	125000	103.2	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP15788: D70070-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

Metal	D70037-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	70900	74500	4.9	0-10
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	29000	30400	4.9	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	21000	22100	5.3	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP15788: D70070-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

QC Batch ID: MP15788
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 04/28/15

	D70037-1A		QC
Metal	Original SDL 1:5	%DIF	Limits

(anr) Analyte not requested

Mountain States ACCUTEST LABORATORIES

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: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP15199/GN29739	1.0	0.0	mg/kg	59.8	51.1	85.4	80-120%
Specific Conductivity	GP15153/GN29667			umhos/cm	9988	9880	98.9	90-110%
pH	GN29653			su	8.00	8.01	100.1	99.1-100.9%

Associated Samples:
Batch GN29653: D70070-1
Batch GP15153: D70070-1
Batch GP15199: D70070-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP15199/GN29739	D70069-1	mg/kg	0.0	0.0	200.0(a)	0-20%
Redox Potential Vs H2	GN29686	D70069-1	mv	334	342	2.4	0-20%

Associated Samples:
Batch GN29686: D70070-1
Batch GP15199: D70070-1
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP15199/GN29739	D70069-1	mg/kg	0.0	40.0	0.0	0.4(a)	75-125%

Associated Samples:
Batch GP15199: D70070-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70070
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 4-23-15

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chromium, Hexavalent	GP15199/GN29739	D70069-1	mg/kg	0.0	40.0	0.0	38.6(a)	20%

Associated Samples:
Batch GP15199: D70070-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) High RPD due to possible sample nonhomogeneity.

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

Accutest Job #:	D70070
Accutest Quote #:	0
AMS P.O. #:	
Project No.:	

Client Information			Subcontract Laboratory Information			Analytical Information
Name: Accutest Mountain States (AMS)			Name: Accutest - New England			
Address: 4036 Youngfield St.			Address: 495 Technology Center West, BLDG C			
City: Wheat Ridge,	State: CO	Zip: 80033	City: Marlborough	State: MA	Zip: 01752	
Send Report to: Scott Heideman			Contact:			
Any questions contact: Jeremy DeChant			Sample Management			
Phone/Fax #: (303) 425-6021; (303)425-6854			Phone: (508) 481-6200			

Field ID / Point of Collection	Collection Date	Collection Time		Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2So4	None	V8260BTX						Comments
D70070 -1	4/23/15	10:30 AM		SO	1						X						
-																	
																	11B

Turnaround Information

- [X] 3 - 5 Business Day Rush
- [ ] Other 4 (Days)

Approved By:

10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Commercial "BN"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] PDF
- [ ] Compact Disk Deliverable
- [ ] Electronic Delivery:
- [ ] State Forms
- [ ] Other (Specify)

Comments / Remarks

Please use Colorado regulations and RLs.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date & Time:	Received By:	Date & Time:
1 4/23/15		1	1
2 FX	4/23/15 9:30	2	2
3		3	3

For Subcontract Laborartory Use Only

Seal #: Headspace: Yes [ ] No [ ] NA [ ]

Preserved where applicable: [ ]

Temperature °C 1.5° On Ice [ ]

11.1 11

D70070: Chain of Custody
Page 1 of 2
Accutest Labs of New England, Inc.

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D70070 **Client:** AMS **Project:** SUB

Date / Time Received: 4/28/2015 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.5/1.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control _Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

D70070: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

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

Method Blank Summary

Job Number: D70070
Account: ALMS Accutest Mountain States
Project: CONECOK: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2726-MB	K87415.D	1	05/01/15	JM	n/a	n/a	MSK2726

The QC reported here applies to the following samples: **Method:** SW846 8260C

D70070-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	25	19	ug/kg	
100-41-4	Ethylbenzene	ND	100	19	ug/kg	
108-88-3	Toluene	ND	250	20	ug/kg	
1330-20-7	Xylene (total)	ND	100	17	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	65-141%
2037-26-5	Toluene-D8	98%	65-129%
460-00-4	4-Bromofluorobenzene	94%	63-137%

Blank Spike Summary

Job Number: D70070
Account: ALMS Accutest Mountain States
Project: CONECOK: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2726-BS	K87413.D	1	05/01/15	JM	n/a	n/a	MSK2726

The QC reported here applies to the following samples: **Method:** SW846 8260C

D70070-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2270	91	67-124
100-41-4	Ethylbenzene	2500	2600	104	75-120
108-88-3	Toluene	2500	2500	100	76-122
1330-20-7	Xylene (total)	7500	8060	107	78-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	65-141%
2037-26-5	Toluene-D8	107%	65-129%
460-00-4	4-Bromofluorobenzene	95%	63-137%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70070
Account: ALMS Accutest Mountain States
Project: CONECOK: Grizzly Sample 4-23-15

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D70069-1MS	K87422.D	1	05/01/15	JM	n/a	n/a	MSK2726
D70069-1MSD	K87423.D	1	05/01/15	JM	n/a	n/a	MSK2726
D70069-1	K87418.D	1	05/01/15	JM	n/a	n/a	MSK2726

The QC reported here applies to the following samples: **Method:** SW846 8260C

D70070-1

CAS No.	Compound	D70069-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		6980	6070	87	6980	6230	89	3	34-139/30
100-41-4	Ethylbenzene	ND		6980	6990	100	6980	6860	98	2	24-146/30
108-88-3	Toluene	ND		6980	6700	96	6980	6610	95	1	30-147/30
1330-20-7	Xylene (total)	ND		20900	21500	103	20900	21400	102	0	25-147/30

CAS No.	Surrogate Recoveries	MS	MSD	D70069-1	Limits
1868-53-7	Dibromofluoromethane	93%	95%	102%	65-141%
2037-26-5	Toluene-D8	105%	107%	99%	65-129%
460-00-4	4-Bromofluorobenzene	95%	96%	93%	63-137%

* = Outside of Control Limits.