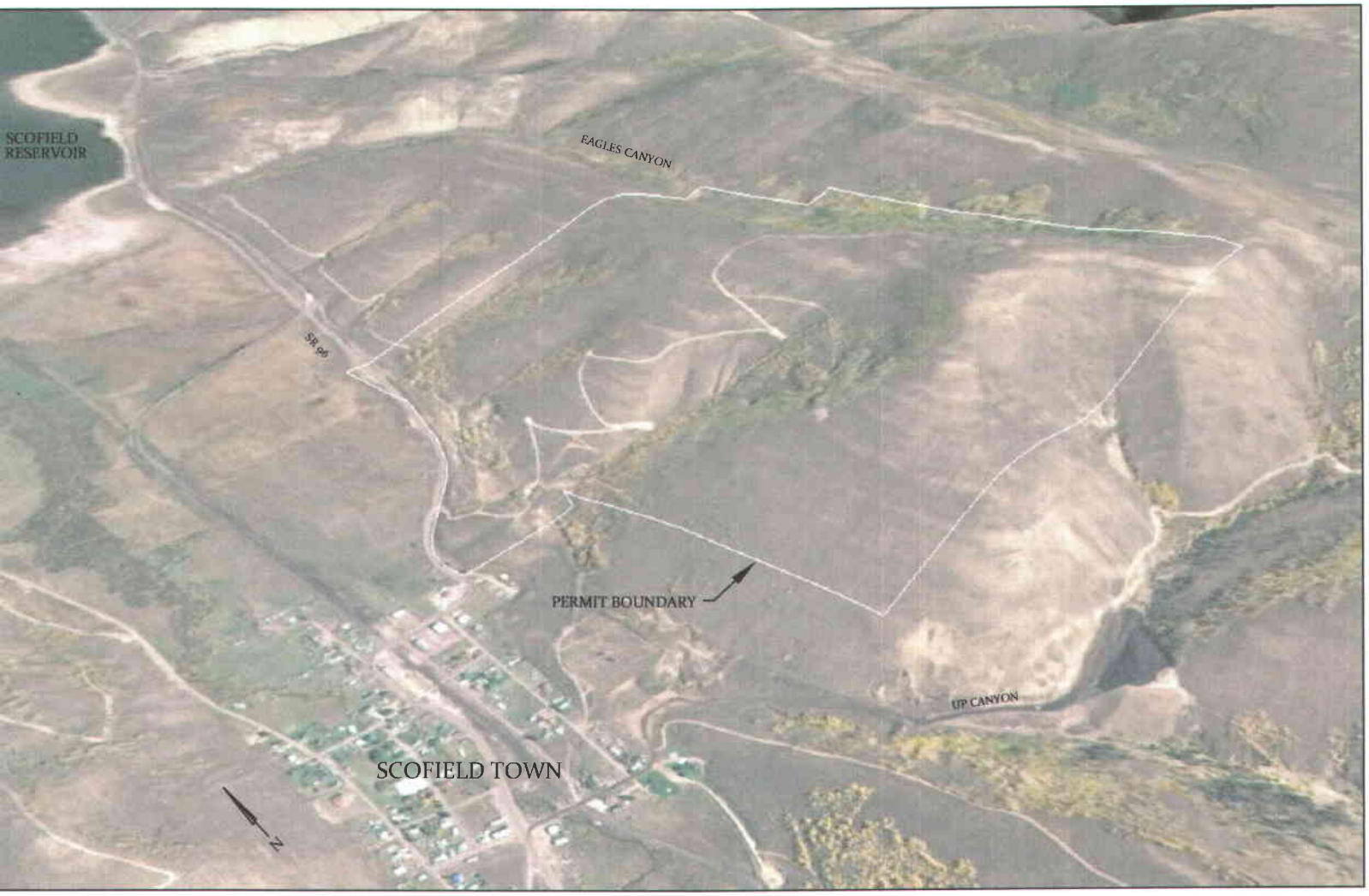
Mining and Reclamation Permit Application
Kinney No. 2 Mine

Volume 2



Carbon Resources
Coal For Carbon County

Carbon Resources LLC
P.O. Box 954
Sandia Park, NM 87047
505-980-1841

COPY

Incoming
C0070047
#3646
R

Carbon Resources, LLC
PO Box 954
Sandia Park, NM 87047
Telephone: (505) 980-1841

November 2, 2010

Daron Haddock
Department of Natural Resources
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

RE: PERMIT APPLICATION UPDATED FOR KINNEY NO. 2 MINE - PERMIT NO. C/007/0047

Dear Mr. Haddock,

Please find five copies each of updates (replacements and additions) to the Kinney # 2 MRP update submitted 1 October 2010, together with Forms C1 and C2 as required. As mentioned on the phone, this set of updates amount to "warranty work" on the version submitted 1 October 2010. That is, items we have discovered ourselves during our own review are addressed here.

Please feel free to contact me at (970) 856-9477, or Ben Grimes at (435) 653-2304 with any questions regarding this application.

Best Regards,

Greg Hunt

File in:
☐ Confidential
☒ Shelf Vol. 1 & 2
☐ Expandable
Date Folder 11032010 C/007/0047

See: Incoming For additional information
& Confidential

COPY

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Carbon Resources, LLC
Mine: Kinney No. 2 Mine **Permit Number:** C/007/0047
Title: Response to Technical Deficiencies & Reformatted MRP

Description, Include reason for application and timing required to implement:

Responds to Technical Deficiencies and reformats the original application to the regulations - NEW COAL MINE.

Instructions: If you answer yes to any of the first eight questions, this application may require Public Notice publication.

☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ ☐ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☐ Yes ☒ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?
☒ Yes ☐ No 24. Does the application include confidential information and is it clearly marked and separated in the plan?

Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Clay Wisdom	C.F.O.	10/02/2010	
Print Name	Position	Date	Signature (Right-click above choose certify then have notary sign below)

Subscribed and sworn to before me this 3 day of Nov, 2010

Notary Public: Robyn Scott, state of ~~Utah~~ New Mexico

My commission Expires: Nov 15, 2011

Commission Number:

Address: Box A, Hwy 333

City: Hyrum State: NM Zip: 87549

OFFICIAL SEAL
ROBYN SCOTT
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/15/11

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
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Form DOGM- C1 (Revised December 10, 2007)

COPY

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Carbon Resources, LLC
Mine: Kinney No. 2 Mine
Title: Response to Technical Deficiencies & Reformatted MRP
Permit Number: C/007/0047

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☒ Replace	☐ Remove	Replace lists of Tables, Figures, Maps and Exhibits at the beginning of Volume 1.
☐ Add	☒ Replace	☐ Remove	Double Sided Pages (2-5 2-6), (2-7 2-8), (2-11 2-12), in Chapter 2, Volume 1.
☐ Add	☒ Replace	☐ Remove	Chapter 5 in it's entirety in Volume 1.
☐ Add	☒ Replace	☐ Remove	Pages 6-5 and 6-6 in Chapter 6 in Volume 1.
☒ Add	☐ Replace	☐ Remove	Page 6-5A in Chapter 6 in Volume 1.
☒ Add	☐ Replace	☐ Remove	Maps 7A and 7B to Volume 1 in maps section, Volume 1.
☐ Add	☒ Replace	☐ Remove	Pages 7-36 through the end in Chapter 7 in Volume 1.
☐ Add	☒ Replace	☐ Remove	Figure 2 at the end of Chapter 6 in Volume 1.
☐ Add	☒ Replace	☐ Remove	Map 8 in the maps section, Volume 1.
☒ Add	☐ Replace	☐ Remove	Drill data to Exhibit 3, Pyritic Sulfur in Coal (15 pages) - Confidential Volume
☒ Add	☐ Replace	☐ Remove	Data to Exhibit 12 (Lab sheets for wells CR-10-11 & CR-10-12 = 25 pages) - Volume 2.
☒ Add	☐ Replace	☐ Remove	Data to Exhibit 12 (Lab sheets for 5 surface water sites = 38 pages) - Volume 2.
☒ Add	☐ Replace	☐ Remove	~~Old Vs NEW Lists of Tables, Figures, Maps and Exhibits behind Replaced lists beg. Volume 1~~
☐ Add	☒ Replace	☐ Remove	Field Data Sheets in Exhibit 10, Sheets for CR-06-01, CR-10-11, and CR-10-12 - Volume 2
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

This information and data corrects several issues and adds additional water sampling and coal quality information.

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C/007/047 Incoming

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#3646

Carbon Resources, LLC
PO Box 954
Sandia Park, NM 87047
Telephone: (505) 980-1841

October 1, 2010

Mr. John Baza, Director
Department of Natural Resources
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

Dear Mr. Baza,

RE: PERMIT APPLICATION RESUBMISSION FOR KINNEY NO. 2 MINE - PERMIT NO. C/007/0047

In response to the Divisions Technical review deficiencies, Carbon Resources submits the attached permit application and responds to the technical deficiencies outlined in the Division's letter of September 24, 2008. The document has been completely reformatted to address the applicable regulations as directed, and to respond to the technical deficiencies.

Five copies of the application with responses are submitted herewith and they include paper copies of all of background data (lab sheets etc.) supporting determinations reached herein. This includes but not limited to data from water monitoring, soils survey, acid forming potential analyses etc. We understand that you will "stamp received" on all the copies and distribute them, per discussions with Daron Haddock, as follows;

1. Sent to OSM
2. Remains in UDOGM SLC OFFICE for Public Room
3. Remains in UDOGM SLC OFFICE for internal review
4. Sent to UDOGM PRICE OFFICE
5. Returned to Carbon Resources

A comprehensive Suite of Drilling Data, including quality analyses of coal etc., was submitted to UDOGM in February 2007 and is located in the Salt Lake Office Library under "Confidential Information."

This submission is accompanied by Forms C1 and C2 as required.

Please feel free to contact me, Greg Hunt at (970) 856-9477, or Ben Grimes at (435) 653-2304 with any questions regarding this application.

File in:
☐ Confidential
☒ Shelf
☐ Expandable
Date Folder 10042010 C/0070047
+ Confidential
See Incoming for additional

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OCT 04 2010
DIV. OF OIL, GAS & MINING

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Application Certification

I the undersigned, hereby certify that the material and information contained in this application for a permit to mine coal by underground methods are complete and correct to the best of my knowledge and belief.

Carbon Resources, LLC

By: _____
Clay Wisdom
C.F.O.

State of New Mexico
County of Bernalillo

Subscribed and sworn to and before me this 28th day of September, 2010

OFFICIAL SEAL
SHANNON PARRA
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 2/11/2012

Shannon Parra
Notary Public for the State of New Mexico

Residing at: Bernalillo County

My Commission Expires: 2/11/2012

COPY

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☐ New Permit ☒ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Carbon Resources, LLC
Mine: Kinney No. 2 Mine **Permit Number:** C/007/0047
Title: Response to Technical Deficiencies & Reformatted MRP

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Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein

Clay Wisdom	C.F.O.	09/28/2010	
Print Name	Position	Date	Signature (Right-click above choose certify then have notary sign below)

Subscribed and sworn to before me this 28 day of September, 2010

Notary Public: Shannon Parra, state of ~~Utah~~ NM

My commission Expires: 2/11/2012
Commission Number: _____
Address: 48 Jeanee Rd
City: Moriarty State: NM Zip: 87035

OFFICIAL SEAL
SHANNON PARRA
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 2/11/2012

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED OCT 04 2010 DIV. OF OIL, GAS & MINING

COPY

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			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☒ Replace	☐ Remove	Replace entire MRP application with reformatted document
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

This application replaces the original MRP application as required by UDOGM, and is reformatted to the regulations. It includes responses to the Technical Review deficiencies.

Received by Oil, Gas & Mining

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OCT 04 2010
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EXHIBIT 1

Documentation of Existing Site Conditions

Refer to Map 14 For Photograph Locations

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180 Degree Panorama

EXHIBIT 2

Prime Farmland Determination

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
240 West Highway 40 333-4
Roosevelt, UT 84066
(435) 722-4621
FAX (435) 722-9065

March 9, 2006

Ben Grimes
Hansen, Allen & Luce Engineers
23 South Carbon Avenue, Suite #21
P.O. Box 777
Price, UT 84501

Re: Prime, State Important and Unique Farmlands Determination for Kinney No. 2 Mine, near Scofield, UT; Job # 308.01.100

Dear Mr. Grimes:

We have reviewed your request for a determination of prime, state important and unique farmlands.

The soils do not meet the criteria for prime, state important or unique farmlands for one or more of the following reasons:

1. The soils have a temperature regime that is Cryic. The mean summer temperature is less than 59 degrees F. (15 degrees C.); and or

2. The product of K (erodibility factor) x percent slope is greater than 2.0 for prime farmlands, and is greater than 5.0 for state important farmlands; and or

3. More than 10 percent of the surface layer (upper 6 inches) in these soils consists of rock fragments coarser than 3 inches (7.6 cm); and or

4. The soils have a pH of greater than 8.6 in some horizons within a depth of 20 inches; and or

5. The area does not have a developed irrigation system that is of adequate quality or quantity to grow the commonly grown crops adapted to the region in 7 or more years out of 10; and or

6. The area is urban land.

7. Carbon County has not designated any lands as unique farmlands.

I am enclosing a Form AD-1006, FARMLAND CONVERSION IMPACT RATING for your use.

Robert H Fish

Robert H. Fish
Soil Scientist

Cc: Wayne Greenhalgh, DC, NRCS, Price, UT

Enclosure

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 – Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 – Originator will send copies A, B and C together with maps indicating locations of site(s), to the Natural Resources Conservation Service (NRCS) local field office and retain copy D for their files. (Note: NRCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the NRCS State Conservationist in each state).

Step 3 – NRCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 – In cases where farmland covered by the FPPA will be converted by the proposed project, NRCS field offices will complete Parts II, IV and V of the form.

Step 5 – NRCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for NRCS records).

Step 6 – The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 – The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.

2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5 (b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will, be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site "A."}$$

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 3/8/06
Name Of Project Kinney No. 2 Mine (Scofield, UT)	Federal Agency Involved
Proposed Land Use Coal Mine	County And State Carbon County, Utah
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 3/8/06

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☐	No ☑	Acres Irrigated / Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

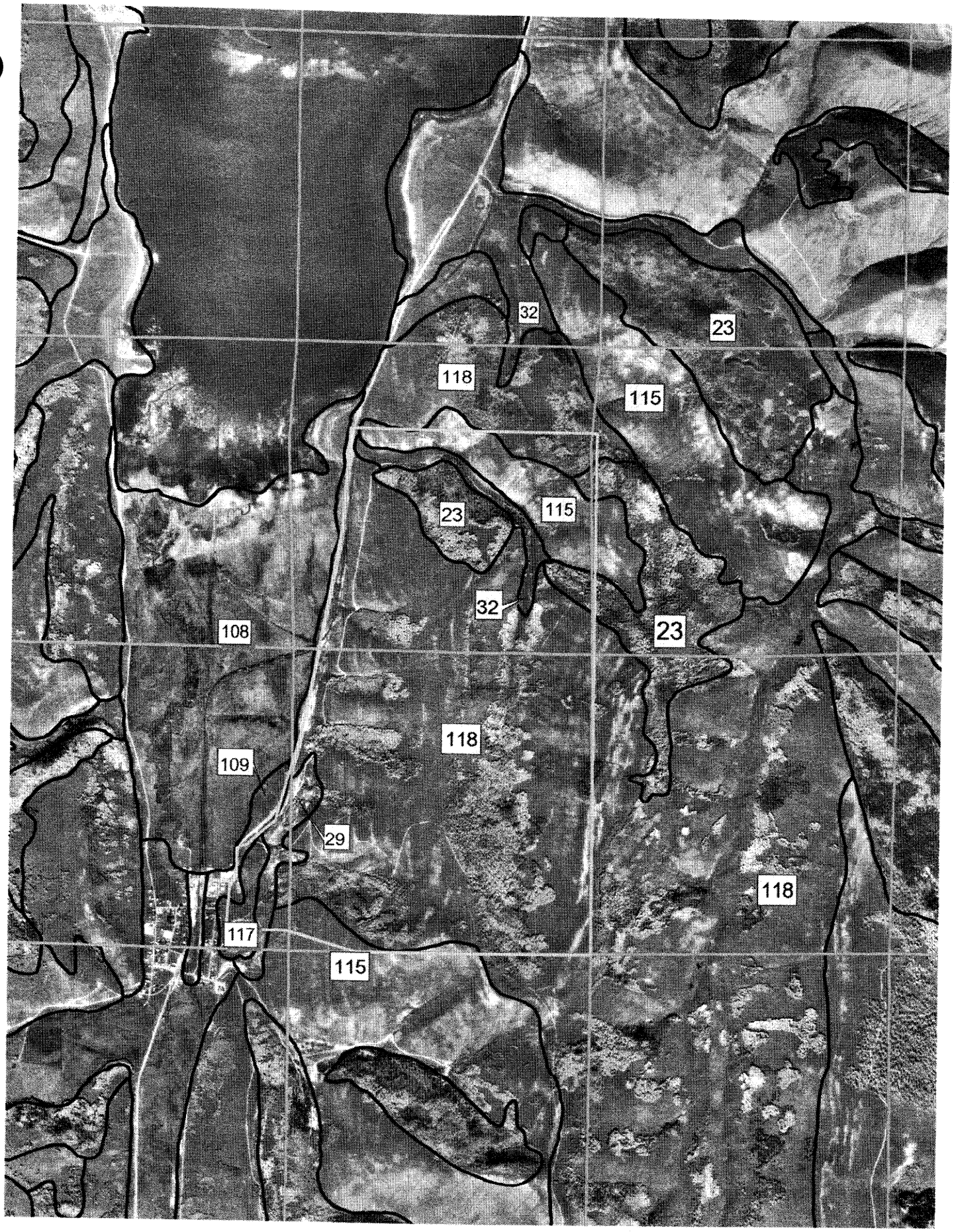
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)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HANSEN ALLEN & LUCE INC.
23 South Carbon Ave, Suite #21
Price, Utah 84501
Phone: (435) 636-8269
Fax: (435) 636-8269

Fax Transmission

To: ROBERT FISH NRCS

Date: 3/8/06 | Fax#: 435-722-9065

Job #: 308.01.100 | Project:

NO. PAGES	DATE	ITEM
2		

SUBMITTED

☐ For Approval	☒ For Review & Comments
☐ As Requested	☐ For Use
☐ Approved as Submitted	☐ Returned for Corrections
☐ Approved as Noted	☐ Other _____

Copies to:

Consulting Engineers Specializing in Water Resources, Civil Engineering and the Environment

Services

- Regulatory Coordination and Permitting
- Complex Analytical Analyses
- Studies
- Master Planning
- Design
- Services During Construction
- Litigation Support

Areas of Specialization

- Water Supply
- Wastewater Disposal
- Storm Drainage and Flood Control
- Hydrology
- Hydraulics
- Water Quality Management
- Solid and Hazardous Waste
- Environmental Permitting

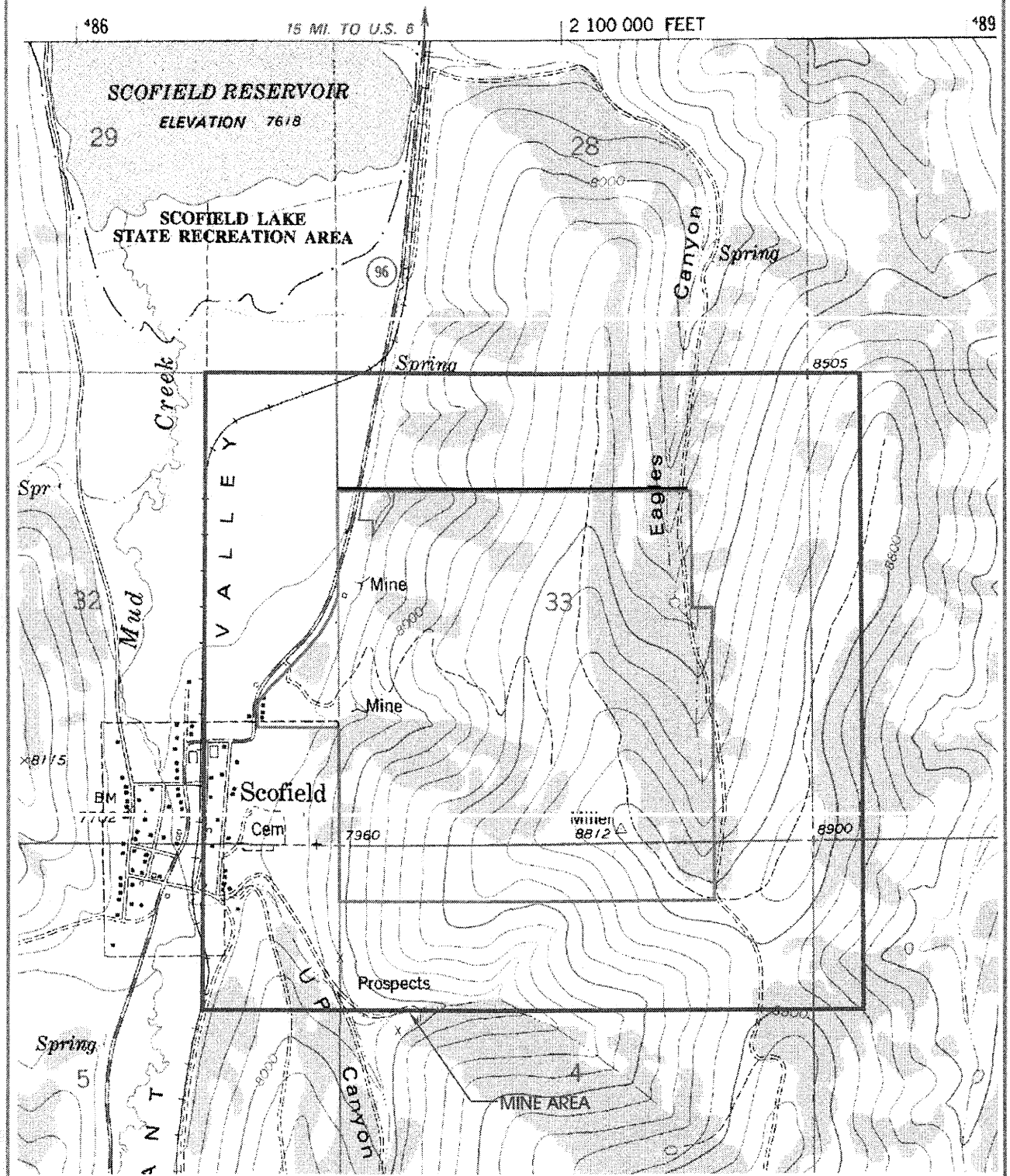
GENERAL COMMENTS

PLEASE PROVIDE PRIME FARMLAND DETERMINATION FOR:
- KINNEY NO. 2 MINE -
- AREA SHOWN ON ATTACHED MAP
- SEND TO: BEN GRIMES
HANSEN, ALLEN & LUCE ENGINEERS
P.O. BOX 777
PRICE, UT 84501

Signed: [signature]

D:\BAGfiles1\FORMS\OFFICE\FaxCoverPrice.wpd (Revised: October 25, 2005)

SCOFIELD QUADRANGLE
UTAH
7.5 MINUTE SERIES (TOPOGRAP
NW/4 SCOFIELD 15' QUADRANGLE



HANSEN ALLEN & LUCE INC. ENGINEERS

KINNEY NO. 2 MINE
PRIME FARMLAND DETERMINATION REQUEST

FIGURE
1

EXHIBIT 4

Other Permits

UPDES Permit

Air Quality Permit

UDOT Highway Access Permit

MSHA Permit

Carbon County Conditional Use Permit

Utah DNR Div. of Water Rights, Small Dam Permit (Negative Determination)

Utah Department of Commerce License Number

Dwelling within 300 Feet Waiver Letter

UPDES Permit

State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

June 15, 2010

CERTIFIED MAIL
(Return Receipt requested)

Clay Wisdom, CFO
Carbon Resources, LLC
P.O. Box 954
Sandia Park, NM 87047

Dear Mr. Wisdom:

Subject: UPDES General Permit Coverage No. UTG040028 for the Proposed Kinney No. 2 Mine Site Near Scofield, Utah.

Enclosed is a signed copy of the Utah Pollutant Discharge Elimination System (UPDES) General Permit No. UTG040000 for the above referenced facility. Coverage under this general permit for your facility is referred to as application number UTG040028. The conditions and requirements of the permit are effective as of July 1, 2010. Copies of EPA form 3320-1, Discharge Monitoring Reports (DMR) forms, for reporting and self-monitoring requirements as specified in the permit, are available upon request. As a reminder, DMR forms are due in our office by the 28th of each month following each monthly monitoring period.

A fee schedule was included in the Utah Department of Environmental Quality Budget appropriation request at the direction of the Legislature and in accordance with Utah Code annotated 19-1-201. The fee schedule, as approved by the legislature, includes a prescribed fee for specific Industrial Categories. The prescribed fee for this general permit, UPDES General Permit for Coal Mine Facilities, is $1,800.00 for a five-year period from May 1, 2008 to April 30, 2013. A prorated amount of $1,020.00 has been appropriated for your permit coverage from July 1, 2010 to April 30, 2013 and a separate invoice had been included herein. Therefore, please remit $1,020.00 within 30 days from receipt of this letter to:

Department of Environmental Quality
Division of Water Quality
Attn: Jalynn Knudsen
P.O. Box 144870
Salt Lake City, UT 84114-4870

Please be sure to include the invoice number with you remittance.

The Utah Division of Water Quality (DWQ) values your feedback, and as the State agency charged with the administration of issuing UPDES permits, we are continuously looking for ways to improve our quality of service to you. DWQ Director Walter L. Baker is committed to continually assessing and improving the level and quality of services provided to you. In an effort to improve the State UPDES permitting process, we are asking for your input. Please take a few minutes to comment on the quality of service you received by completing the "Give Feedback to DWQ" form link on DWQ's webpage at www.waterquality.utah.gov. Thank you for assisting us in improving our service to you.

Please continue to keep DWQ informed of your project status for coordination of future inspections. If you have any questions with regards to this matter, please contact Jeff Studenka of this office at (801) 536-4395 or by e-mail at jstudenka@utah.gov.

Sincerely,

Michael D. Herkimer, Manager
UPDES IES Section

MH/JS/mc

Enclosure

cc: Qian Zhang, P.E., EPA Region VIII (w/ Encl.)
Claron Bjork, SE District Health Department
Dave Ariotti, SE District Engineer
Daron Haddock, Utah Division of Oil Gas & Mining (w/ Encl.)
Jim Karpowitz, Utah Division of Wildlife Resources
Nathan Darnall, U.S. Fish & Wildlife Services

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Permit Coverage No. UTG040028
Minor Industrial

STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

AUTHORIZATION TO DISCHARGE UNDER THE

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM
(UPDES)

GENERAL PERMIT FOR COAL MINING
(UPDES Permit No.UTG040000)

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended* (the *"Act"*),

CARBON RESOURCES, LLC – Kinney No. 2 Mine

as identified in the general permit application No. UTG040028 is authorized to discharge from Outfall 001 to receiving waters named:

Mud Creek and Scofield Reservoir, tributaries to the Price and Colorado Rivers

in accordance with discharge points, effluent limitations, monitoring requirements and other conditions as set forth herein.

This permit shall become effective on July 1, 2010.

This permit and the authorization to discharge shall expire at midnight, April 30, 2013.

Signed this 14th day of June, 2010

Walter L. Baker, P.E.
Executive Secretary
Utah Water Quality Board

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I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Criteria for Inclusion in the General Permit for Coal Mining

This General permit shall apply only to the discharge of treated wastewater from:

Coal mining operations either new or existing in Utah which include or will include in part, or in whole, alkaline mine water drainage, storm water runoff from coal preparation plant associated areas, active mining areas, and post mining areas until the performance bond is released. The total dissolved solids (TDS) are limited to a concentration of 500 mg/L at all discharge points, or one ton per day as a sum from all discharges.

B. Notice of Intent for a General Permit for Coal Mining

Any facility which desires coverage under this general permit for coal mining and meets the requirements of Part I.A. may be issued general permit coverage by submitting a notice of intent (NOI) to the Division of Water Quality.

The NOI shall include:

1. A completed Environmental Protection Agency Application (EPA Form 3510-1) or equivalent information.

2. Location and identification number (such as 001, 002, etc.) of each existing discharge and/or proposed discharge point(s). This includes the latitude and longitude to the nearest 15 seconds and the name of the receiving water(s).

3. A description of the source of the wastewater for each discharge point.

4. A description of the treatment given or proposed for the wastewater at each discharge point and if necessary a justification of why no treatment is required.

5. Flow characteristics for each discharge point such as whether flow is or will be continuous or intermittent and indicate projected and/or actual average and maximum flows in gallons per day (gpd), or million gallons per day (MGD).

6. Data for each discharge point for the following parameters:

    a. Biochemical demand (BOD_5).
    b. Chemical oxygen demand (COD).
    c. Total organic carbon (TOC).
    d. Total suspended solids (TSS).
    e. Flow.
    f. Ammonia (as N).
    g. Oil and grease.
    h. Temperature.
    i. pH.
    j. Total dissolved solids (TDS).
    k. Total iron and metals, cyanide, phenols located in *Table III of UAC R317-8-3.12*.
    l. For discharge(s) of mine water or mine water and mine water mixed with surface runoff one acute whole efficiency toxicity test (WET) using two species and full dilution series

(five dilutions plus a control). Sediment pond discharges which have only surface runoff do not require WET tests.

m. Date and time of sampling for each parameter.

n. Date and time of analysis for each parameter.

o. Utah certified laboratory which has completed the analysis for each parameter.

For each discharge point the presence or absence of any toxic and/or priority pollutants as listed in *Table II, UAC R317-8-3.13.*

C. Description of Discharge Point(s).

The authorization to discharge provided under this permit is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit is a violation of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

Outfall Number	Location of Discharge Point(s)
001	Storm water runoff from lone sedimentation pond to Mud Creek, Latitude 39° 44' 41" N, Longitude 111°9'3"W.

D. Narrative Standard.

It shall be unlawful, and a violation of this permit, for the permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

E. Specific Limitations and Self-monitoring Requirements.

1. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

	Discharge Limitations a/			Monitoring Requirements	
Effluent	Averages		Daily	Measurement	Sample
Characteristics	30-Day	7-Day	Maximum	Frequency	Type
Flow, gpd or MGD b/	Report	N/A	Report	Monthly	Measured
Oil & Grease, mg/L c/	N/A	N/A	10	Monthly	Visual/Grab
Total Iron, mg/L	N/A	N/A	1.0	Monthly	Grab e/
Total Suspended Solids, mg/L	25	35	70	Monthly	Grab e/
Total Dissolved Solids, mg/L d/	Report	N/A	Report	Monthly	Grab e/
Dissolved Oxygen, mg/L f/	N/A	N/A	N/A	Monthly	Grab
Total Phosphorous, mg/L	N/A	N/A	Report	Monthly	Grab e/

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units in any sample and shall be monitored monthly by a grab sample.

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes or process water from coal preparation plants.

N/A - Not Applicable, gpd – gallons per day, MGD – million gallons per day

a/ See Definitions, *Part V.A* for definition of terms.

b/ For intermittent discharges, the duration of the discharges shall also be reported.

c/ If a visual sheen for oil and/or grease is observed, or there is another reason to believe oil and/or grease may be present in the discharge, then a grab sample must be taken immediately and the results shall not exceed 10 mg/L.

d/ For Total Dissolved Solids, if each outfall cannot achieve a 30-day average of 500 mg/L, then the permittee is limited to one ton (2000 lbs) per day as a sum from all outfalls.

e/ These samples may also be a composite sample.

f/ Dissolved oxygen shall not be less than 4.0 mg/L in any sample and shall be monitored monthly by a grab sample.

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): in the final effluent before mixing with any receiving waters.

3. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at outfall(s) (from approved decant procedures only) may comply with the following limitations instead of the otherwise applicable limitations for TSS in Part I.E.1:

Effluent Characteristics	Daily Maximum
Settleable Solids	0.5 ml/L

In addition to the monitoring requirements specified under Part I.E.1 all effluent samples collected during storm water discharge events shall also be analyzed for settleable solids. Such analyses shall be conducted monthly by grab samples.

4. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10-year, 24 hour precipitation event (or snowmelt of equivalent volume) at outfall(s) from sedimentation ponds may comply with the following limitations instead of the otherwise applicable limitations:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However as stated in Part I.E.3, all effluent samples collected during storm-water discharge events shall be analyzed for settleable solids and parameters identified under Part I.E.1.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in Parts I.E.3 and 4. The alternate limitations in Parts I.E.3 and 4 shall not apply to treatment systems that treat underground mine water only.

6. Additional monitoring shall be required for facilities that discharge into waters or watersheds on the Utah 303(d) list of impaired waters. These facilities shall be required to monitor for the pollutant(s) that cause the impairment for these waters. The Division of Water Quality will incorporate any additional sampling requirements for parameters of concern.

F. Storm Water Requirements. It has been determined that the aforementioned permittee has a regulated storm water discharge as per UAC R317-8-3.9., therefore, the following permit conditions governing storm water discharges apply.

1. Coverage of This Section.

   a. Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges from this permitted facility, subject to effluent limitations listed in Part I.E. of this permit.

      1) Site Coverage. Storm water discharges from the following portions of this permitted facility may be eligible for this permit: haul roads (nonpublic roads on which coal or coal refuse is conveyed), access roads (nonpublic roads providing light vehicular traffic within the facility property and to public roadways), railroad spurs, sidings, and internal haulage lines (rail lines used for hauling coal within the facility property and to offsite commercial railroad lines or loading areas), conveyor belts, chutes, and aerial tramway haulage areas (areas under and around coal or refuse conveyor areas, including transfer stations), equipment storage and maintenance yards, coal handling buildings and structures, and inactive coal mines and related areas (abandoned and other inactive mines, refuse disposal sites and other mining-related areas on private lands).

2. Prohibition of Non-storm Water Discharges.

   a. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharge is in compliance with this section; fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; drinking fountain water; irrigation drainage, lawn watering; routine external building washdown water where detergents or other compounds have not been used in the process; pavement washwaters where spills or leaks of toxic or hazardous materials (including oils and fuels) have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

3. Storm Water Pollution Prevention Plan Requirements. Most of the active coal mining-related areas, described in paragraph 1. above, are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to the Utah Division of Oil Gas and Mining (DOGM) to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of erosion, siltation and other pollutants resulting from storm

water runoff, including road dust resulting from erosion, shall be primary requirements of the pollution prevention plan and shall be included in the contents of the plan directly, or by reference. Where determined to be appropriate for protection of water quality, additional sedimentation and erosion controls may be warranted.

a. Contents of Plan. The plan shall include at a minimum, the following items:

1) Pollution Prevention Team. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

2) Description of Potential Pollutant Sources. Each plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:

a) Deadlines for Plan Preparation and Compliance
The permittee shall prepare, implement and/or update a plan in compliance with the provisions of this section within 270 days of the effective date of this permit.

b) Keeping Plans Current

The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of the State or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified by the plan, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with the activities at the mine.

c) Drainage.

(1) A site map, such as a drainage map required for SMCRA permit applications, that indicate drainage areas and storm water outfalls. These shall include but not be limited to the following:

(a) Drainage direction and discharge points from all applicable mining-related areas described in paragraph 1.a(1). (Site Coverage) above, including culvert and sump discharges from roads and rail beds and also from equipment and maintenance areas subject to storm runoff of fuel, lubricants and other potentially harmful liquids.

(b) Location of each existing erosion and sedimentation control structure or other control measures for reducing pollutants in storm water runoff.

(c) Receiving streams or other surface water bodies.

(d) Locations exposed to precipitation that contain acidic spoil, refuse or unreclaimed disturbed areas.

(e) Locations where major spills or leaks of toxic or hazardous pollutants have occurred.

(f) Locations where liquid storage tanks containing potential pollutants, such as caustics, hydraulic fluids and lubricants, are exposed to precipitation.

(g) Locations where fueling stations, vehicle and equipment maintenance areas are exposed to precipitation.

(h) Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.

(2) For each area of the facility that generates storm water discharges associated with the mining-related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

d) Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

e) Spills and Leaks. A list of significant spills and leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility beginning 3 years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.

f) Sampling Data. A summary of any existing discharge sampling data

describing pollutants in storm water discharges from the portions of the facility covered by this permit, including a summary of any sampling data collected during the term of this permit.

g) Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil. Specific potential pollutants shall be identified where known.

3) Measures and Controls. The permittee shall develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the permitted facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls.

a) Good Housekeeping. Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner. These are practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; watering of haul roads to minimize dust generation; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and equipment maintenance; or other equivalent measures.

b) Preventive Maintenance. A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems. Where applicable, such measures would include the following: removal and proper disposal of settled solids in catch basins to allow sufficient retention capacity; periodic replacement of siltation control measures subject to deterioration such as straw bales; inspections of storage tanks and pressure lines for fuels, lubricants, hydraulic fluid or slurry to prevent leaks due to deterioration or faulty connections; or other equivalent measures.

c) Spill Prevention and Response Procedures. Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of

equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up shall be available to personnel.

d) Inspections. In addition to or as part of the comprehensive site evaluation required under paragraph 3.a.(4) of this section, qualified facility personnel shall be identified to inspect designated areas of the facility at appropriate intervals specified in the plan. The following shall be included in the plan:

(1) Active Mining-Related Areas and Those Inactive Areas Under SMCRA Bond Authority. The plan shall require quarterly inspections by the facility personnel for areas of the facility covered by pollution prevention plan requirements. This inspection interval corresponds with the quarterly inspections for the entire facility required to be provided by SMCRA authority inspectors for all mining-related areas under SMCRA authority, including sediment and erosion control measures. Inspections by the facility representative may be done at the same time as the mandatory inspections performed by SMCRA inspectors. Records of inspections of the SMCRA authority facility representative shall be maintained.

(2) Inactive Mining-Related Areas Not Under SMCRA Bond. The plan shall require annual inspections by the facility representative except in situations referred to in paragraph 3.a.(4)(d) below.

(3) Inspection Records. The plan shall require that inspection records of the facility representative and those of the SMCRA authority inspector shall be maintained. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections.

e) Employee Training. Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify periodic dates for such training.

f) Record keeping and Internal Reporting Procedures. A description of incidents (such as spills, or other discharges) along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.

g) Non-storm Water Discharges.

(1) Certification. The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges such as drainage from underground portions of inactive mines or floor drains from maintenance or coal handling buildings. The certification shall include the identification of potential significant sources of non-storm water discharges at the site, a description of the results of any test and/or evaluation, a description of the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with Part IV.G.4. of this permit.

(2) Exceptions. Except for flows from fire fighting activities, authorized sources of non-storm water listed in Part I.F.2.a. that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

(3) Failure to Certify. If the permittee is unable to provide the certification required (testing or other evaluation for non-storm water discharges), the Executive Secretary must be notified within 180 days after the effective date of this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water to the storm discharge lines; and why adequate tests for such storm discharge lines were not feasible. Non-storm water discharges to waters of the State that are not authorized by a UPDES permit are unlawful, and must be terminated.

h) Sediment and Erosion Control. The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion and reduce sediment concentrations in storm water discharges. As indicated in paragraph I.F.3. above, SMCRA requirements regarding sediment and erosion control measures are primary requirements of the pollution prevention plan for mining-related areas subject to SMCRA authority. The following sediment and erosion control measures or other equivalent measures, should be included in the plan where reasonable and appropriate for all areas subject to storm water runoff:

(1) Stabilization Measures. Interim and permanent stabilization measures to minimize erosion and lessen amount of structural sediment control measures needed, including: mature vegetation preservation; temporary seeding; permanent seeding and

planting; temporary mulching, matting, and netting; sod stabilization; vegetative buffer strips; temporary chemical mulch, soil binders, and soil palliatives; nonacidic road surfacing material; and protective trees.

(2) Structural Measures. Structural measures to lessen erosion and reduce sediment discharges, including: silt fences; earth dikes; straw dikes; gradient terraces; drainage swales; sediment traps; pipe slope drains; porous rock check dams; sedimentation ponds; riprap channel protection; capping of contaminated sources; and physical/chemical treatment of storm water.

i) Management of Flow. The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (other than those as sediment and erosion control measures listed above) used to manage storm water runoff in a manner that reduces pollutants in storm water runoff from the site. The plan shall provide that the measures, which the permittee determines to be reasonable and appropriate, shall be implemented and maintained. Appropriate measures may include: discharge diversions; drainage/storm water conveyances; runoff dispersion; sediment control and collection; vegetation/soil stabilization; capping of contaminated sources; treatment; or other equivalent measures.

4) Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:

a) Areas contributing to a storm water discharge associated with coal mining-related areas shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. These areas include haul and access roads; railroad spurs, sidings, and internal haulage lines; conveyor belts, chutes and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures, as indicated in paragraphs 3.a.(3)(h) and 3.a.(3)(i) above and where identified in the plan, shall be observed to ensure that they are operating correctly. A visual evaluation of any equipment needed to implement the plan, such as spill response equipment, shall be made.

b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan, in accordance with paragraph 3.a.(2) of this section, and pollution prevention measures and controls identified in the plan, in accordance with paragraph 3.a.(3) of this section, shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner. For inactive mines, such revisions may be extended to a

maximum of 12 weeks after the evaluation.

c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph 3.a.(4)(b) above shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Part IV.G.4. (Signatory Requirements) of this permit.

d) Where compliance evaluation schedules overlap with inspections required under 3.a.(3)(d), the compliance evaluation may be conducted in place of one such inspection. Where annual site compliance evaluations are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site inspections required under this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in 3 years.

4. Numeric Effluent Limitations. There are no additional numeric effluent limitations beyond those described in Part I.E. of this permit.

5. Monitoring and Reporting Requirements.

a. Benchmark Analytical Monitoring Requirements. The permittee must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 of the permit cycle except as provided in paragraphs 5.a.(3) (Sampling Waiver), 5.a.(4) (Representative Discharge), and 5.a.(5) (Alternative Certification). The permittee is required to monitor their storm water discharges for the pollutants of concern listed in Table E. below. Reports must be made in accordance with 5.b. (Reporting). In addition to the parameters listed in Table E. below, the permittee must provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

The results of benchmark monitoring are primarily for the permittee's use to determine the overall effectiveness of the SWPPP in controlling the discharge of pollutants to receiving waters. Benchmark values are not viewed as permit limitations. An exceedence of a benchmark value does not, in and of itself, constitute a violation of this permit. While exceedences of a benchmark value does not automatically indicate a violation of a water quality standard has occurred, it does signal that modifications to the SWPPP or more specific pollution prevention controls may be necessary.

Table E.
Monitoring Requirements for Coal Mining Facilities

Pollutants of Concern	Cut-Off Concentration
Total Recoverable Aluminum	0.75 mg/L

Total Recoverable Iron	1.0 mg/L
Total Suspended Solids	100 mg/L

1) Monitoring Periods. The permittee shall monitor samples collected during the sampling periods of: January through March, April through June, July through September, and October through December during the second and fourth years of this permit cycle.

2) Sample Type. A minimum of one grab sample shall be taken. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or nonprocess water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

3) Sampling Waiver.

   a) Adverse Conditions. If the permittee is unable to collect samples within a specified sampling period due to adverse climatic conditions, thus a substitute sample shall be collected from a separate qualifying event in the next monitoring period and the data submitted along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

   b) Low Concentration Waiver. When the average concentration for a pollutant calculated from all monitoring data collected from an outfall during the second year monitoring is less than the corresponding value for that pollutant listed in Table E. under the column Monitoring Cut-Off Concentration, the permittee may waive monitoring and reporting requirements for the fourth year monitoring period. The permittee must submit to the Executive Secretary, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in area of the facility that drains to the outfall for which sampling was waived.

   c) Inactive and Unstaffed Site. If the permittee is unable to conduct quarterly chemical storm water sampling at an inactive and unstaffed

site, the operator of the facility may exercise a waiver of the monitoring requirements as long as the facility remains inactive and unstaffed. The permittee must submit to the Executive Secretary, in lieu of monitoring data, a certification statement on the Storm Water Discharge Monitoring Report (SWDMR) stating that the site is inactive and unstaffed so that collecting a sample during a qualifying event is not possible.

4) Representative Discharge. If the permittee has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the SWDMR.

5) Alternative Certification. The Permittee is not subject to the monitoring requirements of this section provided that certification is made for a given outfall or on a pollutant-by-pollutant basis in lieu of monitoring reports required under paragraph b. below, under penalty of law, signed in accordance with Part IV.G.4. (Signatory Requirements). The Certification shall state that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to DWQ in accordance with Part II.D. of this permit. In the case of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports required under paragraph b. below. If the permittee cannot certify for an entire period, they must submit the date exposure was eliminated and any monitoring required up until that date. This certification option is not applicable to compliance monitoring requirements associated with effluent limitations.

b. Reporting. The permittee shall submit monitoring results for each outfall associated with industrial activity [or a certification in accordance with Sections (3), (4), or (5) above] obtained during the second year reporting period, on Storm Water Discharge Monitoring Report (SWDMR) form(s) postmarked no later than the 31st day of the following March. Monitoring results [or a certification in accordance with Sections (3), (4), or (5) above] obtained during the fourth year reporting period shall be submitted on SWDMR form(s) postmarked no later than the 31st day of the following March. For each outfall, one signed SWDMR form must be submitted to the Executive Secretary per storm event

sampled. Signed copies of SWDMRs, or said certifications, shall be submitted to the Executive Secretary at the address listed in Part II.D. of the permit.

c. Visual Examination of Storm Water Quality. The permittee shall perform and document a visual examination of a representative storm water discharge at the following frequencies: quarterly for active areas under SMCRA bond located in areas with average annual precipitation over 20 inches; semi-annually for inactive areas under SMCRA bond, and active areas under SMCRA bond located in areas with average annual precipitation of 20 inches or less; visual examinations are not required at inactive areas not under SMCRA bond.

1) Visual Monitoring Periods. Examinations shall be conducted in each of the following periods for the purposes of visually inspecting storm water runoff or snow melt: Quarterly-January through March; April through June; July through September; and October through December. Semi-annually—January through June and July through December.

2) Sample and Data Collection. Examinations shall be made of samples collected within the first 60 minutes (or as soon thereafter as practical, but not to exceed two hours) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual will carry out the collection and examination of discharges for the life of the permit.

3) Visual Storm Water Discharge Examination Reports. Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to the use-disposal practice.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under *Utah Administrative Code ("UAC") R317-2-10*, unless other test procedures have been specified in this permit.

C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

D. Reporting of Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported monthly on a Discharge Monitoring Report Form (EPA No. 3320-1), post-marked no later than the 28th day of the month following the completed reporting period. The first report for the July 2010 monitoring period is due by August 28, 2010. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part IV.G)*, and submitted to the Director, Division of Water Quality at the following address:

original to: Department of Environmental Quality
Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, Utah 84114-4870

E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* or as otherwise specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.

G. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall (orally) report any noncompliance which may seriously endanger health or environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 538-6146, or 24 hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4123 as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:

   a. Any noncompliance which may endanger health or the environment;

   b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See *Part III.G, Bypass of Treatment Facilities.)*;

   c. Any upset which exceeds any effluent limitation in the permit (See *Part III.H, Upset Conditions.*); or,

   d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.

3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;

   b. The period of noncompliance, including exact dates and times;

   c. The estimated time noncompliance is expected to continue if it has not been corrected; and,

   d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.

4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 538-6146.

5. Reports shall be submitted to the addresses in *Part II.D, Reporting of Monitoring Results.*

J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part II.D* are submitted. The reports shall contain the information listed in *Part II.I.3*.

K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine not exceeding $25,000 per day of violation; Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding $50,000 per day. Except as provided at *Part III.G, Bypass of Treatment Facilities* and *Part III.H, Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Removed Substances. Collected screening, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.

G. Bypass of Treatment Facilities.

1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to parts 2. and 3. of this section.

2. Prohibition of Bypass.

a. Bypass is prohibited, and the Executive Secretary may taken enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

(2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

(3) The permittee submitted notices as required under section G.3.

b. The executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed in sections G.2a. (1), (2) and (3).

3. Notice.

a. Anticipated bypass. Except as provided above in section G.2. and below in section G. 3.b, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Executive Secretary:

(1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages:

(2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Executive Secretary in advance of any changes to the bypass schedule;

(3) Description of specific measures to be taken to minimize environmental and public health impacts;

(4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;

(5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and

(6) Any additional information requested by the Executive Secretary.

b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Executive Secretary, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Executive Secretary the information in section G.3.a.(1) through (6) to the extent practicable.

c. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass to the Executive Secretary as required under Part II.I., Twenty Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2. of this section are met. Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset as required under Part II.I, Twenty-four Hour Notice of Noncompliance Reporting; and,

   d. The permittee complied with any remedial measures required under Part III.D, Duty to Mitigate.

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. One hundred micrograms per liter (100 ug/L);

   b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

   c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,

   d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

a. Five hundred micrograms per liter (500 ug/L);

b. One milligram per liter (1 mg/L) for antimony:

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,

d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

K. Industrial Pretreatment. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at *40 CFR 403*, the State Pretreatment Requirements at *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters.

In addition, in accordance with *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

IV. GENERAL REQUIREMENTS

A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Executive Secretary of any planned changes at least 30 days prior to their implementation.

B. Anticipated Noncompliance. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.

F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.

G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official

2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph IV.G.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV.G.2 must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Executive Secretary. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential

J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.

K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Executive Secretary at least 20 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117*.

O. Water Quality-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.

3. A revision to the current Water Quality Management Plan is approved and adopted which calls for different effluent limitations than contained in this permit.

P. Toxicity Limitation-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include whole effluent toxicity (WET) testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

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GLOSSARY OF TERMS

A. Definitions.

1. The "30-day (and monthly) average" is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

2. The "7-day (and weekly) average" is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self- monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.

3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.

4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the composite sample period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

   a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

   b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

   c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

   d. Continuous collection of sample, with sample collection rate proportional to flow rate.

5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

6. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

9. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

10. "Executive Secretary" means Executive Secretary of the Utah Water Quality Board.

11. "EPA" means the United States Environmental Protection Agency.

12. "Act" means the "*Utah Water Quality Act*".

13. "Best Management Practices" ("*BMPs*") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. *BMPs* also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

14. "Coal pile runoff" means the rainfall runoff from or through any coal storage pile.

15. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.

16. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.

17. "Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under *Section 311* of the *Clean Water Act* (see *40CFR 110.10* and *40 CFR 117.21)* or *Section 102* of the *CERCLA* (see *40 CFR 302.4)*.

18. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

19. "Waste pile" means any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage.

20. "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years. This information is available in *Weather Bureau Technical Paper no. 40,* May 1961 and *NOAA Atlas 2,* 1973 for the 11 Western States, and may be obtained from the National Climatic center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

21. The term "coal preparation plant" means a facility where coal is crushed, screened, sized and cleaned, dried, or otherwise prepared and loaded for transit to a consuming facility.

22. The term "coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

Air Quality Permit

FILE COPY

State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

Department of
Environmental Quality

William J. Sinclair
Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-AN0141180001-08

December 11, 2008

Gregory Hunt, Manager
Carbon Resources, LLC
P.O. Box 11789
Albuquerque, New Mexico 87192

Dear Mr. Hunt:

Re: Approval Order: New Approval Order for an Underground Coal Mine
Carbon County – CDS SM; ATT; NSPS; TITLE V Minor
Project Code: N014118-0001

The attached document is the Approval Order for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Maung Maung. He may be reached at (801) 536-4153.

Sincerely,

M. Cheryl Heying, Executive Secretary
Utah Air Quality Board

MCH:MM:sa

cc: Southeastern Utah District Health Department
Mike Owens, EPA Region VIII

150 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144820 • Salt Lake City, UT 84114-4820
Telephone (801) 536-4000 • Fax (801) 536-4099 • T.D.D. (801) 536-4414
www.deq.utah.gov
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STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: New Approval Order for an Underground Coal Mine

Prepared By: Maung Maung, Engineer
(801) 536-4153
Email: mmaung@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN0141180001-08

Date: December 11, 2008

Carbon Resources, LLC

Source Contact
Ben Grimes
Phone: (970) 856-9477

M. Cheryl Heying
Executive Secretary
Utah Air Quality Board

ABSTRACT

Carbon Resources, LLC has submitted a Notice of Intent to construct an underground coal mine which is designated as Kinney 2 Mine. The operations consist of the underground coal hauling equipment and a surface coal handling system that will transfer coal from the underground mining operations through the portal to the coal stockpiles, reclaim system, screening, crushing and load-out facilities. The Kinney 2 Coal Mine will be located in Carbon County, near Schofield, Utah.

Carbon County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS) 40 CFR part 60 subpart Y - Standards of Performance for Coal Preparation Plants applies to this source. Therefore, Title V of the Clean Air Act applies to this source. However, the source does not need to submit an application for Title V permit since it is a minor source. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source.

The emissions will result in the following, in tons per year, potential to emit totals: PM_{10} = 19.00.

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-7 and no comments were received. This air quality Approval Order authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order applies to the following company:

Facility Location	Corporate Office Location
Carbon Resources	Carbon Resources, LLC
Kinney 2 Mine	P.O. Box 11789
23 S. Carbon Avenue	Albuquerque
Price, Utah 84501	New Mexico 87192
Phone Number: (435) 609-9418	(970) 856-9477
Fax Number:	(970) 856-9478

The equipment listed below in this Approval Order shall be operated at the following location:

Plant Location:

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27 4,397.238 kilometers Northing; 486.493 kilometers Easting; Zone 12

2. All definitions, terms, abbreviations, and references used in this Approval Order (AO) conform to those used in the UAC R307 and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.

5. All records referenced in this AO or in applicable NSPS, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for the following minimum periods:

A.	Emission inventories	Five years from the due date of each emission statement or until the next inventory is due, whichever is longer
B.	All other records	Five years

6. Carbon Resources, LLC shall conduct its operations in Kinney 2 Mine in accordance with the terms and conditions of this AO, which was written pursuant to the company's Notice of Intent (NOI) submitted to the Division of Air Quality (DAQ) on February 21, 2008, and additional information given on September 29, 2008.

7. The approved installations shall consist of the following equipment or equivalent*:

   A. One fabric filter bag-house located in screening and crushing facility

   B. One fabric filter bag-house located in truck load-out facility

   C. One fabric vent filter located near reclaim tunnel – ROM stockpile

   D. One crusher (housed in-door) rated at 1000 tons per hour

   E. One scalping screen (housed in-door) rated at 1000 tons per hour

   F. Fuel tank farm

   G. Stacking tubes with associated coal stockpiles

   H. Treated, gravel haul roads

   I. Associated conveyors

   J. One reclaim tunnel with vibrating feeders for coal blending

   * Equivalency shall be determined by the Executive Secretary.

Limitations and Tests Procedures

8. Visible emissions from the following emission points shall not exceed the following values:

   A. All crushers - 15% opacity

   B. All screens - 10% opacity

   C. All conveyor transfer points - 10% opacity

   D. All baghouses – 10% opacity

   E. Conveyor drop points - 10% opacity

   F. All other points - 20% opacity

   Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

   For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

9. The following production limit shall not be exceeded:

   3,000,000 tons of coal per rolling 12-month period

   To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of throughput shall be kept for all periods when the plant is in operation. Throughput shall be determined by examination of truck scale records. A supervisor shall monitor and maintain an operations log. The records of throughput shall be kept on a daily basis.

Roads and Fugitive Dust

10. The facility shall abide by all applicable requirements of UAC R307- 205 for Fugitive Emission and Fugitive Dust sources.

11. All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition or unless it is below freezing. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

    A. Date

    B. Number of treatments made, dilution ratio, and quantity

C. Rainfall received, if any, and approximate amount

D. Time of day treatments were made

E. Records of temperature if the temperature is below freezing

12. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity at any point. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than one half vehicle length behind the vehicle and not less than one half the height of the vehicle.

13. The paved haul road shall be watered, flushed, and/or broom swept as necessary to not exceed the opacity limits specified in condition #8.F. Records of cleaning paved roads shall be made available to the Executive Secretary or a representative upon request. Record shall include a period of two years before the date of request. The haul road speed shall be posted. It shall be 15 mph.

14. Control of disturbed or stripped areas is required at all times for the duration of the project/operation until the area is reclaimed. Areas disturbed during construction of the facility and not subjected to repeated disturbance shall be revegetated.

15. The storage piles shall be watered to minimize generation of fugitive dusts as dry conditions warrant or as determined necessary by the Executive Secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation.

16. All above ground conveyors shall be covered. All reclaim points for the primary coal storage shall be below the stockpile.

17. The following transfer points shall be enclosed:

A. Each conveyor to conveyor transfer point

B. Reclaim conveyor from the primary coal stockpile to the stacking tube

C. All wash plant with associated screens, crushers and conveyors

18. Water sprays or chemical dust suppression sprays shall be installed at the following points to control fugitive emissions:

A. All crushers

B. All screens

The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary.

Fuels

19. The owner/operator shall use only #2 fuel oil or lighter as a primary fuel in diesel engines.

20. The sulfur content of any fuel oil or diesel burned shall not exceed 0.5 percent by weight for diesel fuels consumed in all diesel engines. Sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of sulfur content shall be either by source's own testing or test reports from the fuel supplier. Records of test report on sulfur content shall be available on-site for each load delivered.

Federal Limitations and Requirements

21. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, NSPS Subpart A, 40 CFR 60.1 to 60.18 and Subpart Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants) apply to this installation. The facility must operate in accordance with the most current version of 40 CFR 60 applicable to this source. The following emission points are subject to Subpart Y:

    A. All crushers (above ground)

    B. All screens (above ground)

    C. All conveyors (above ground)

Records & Miscellaneous

22. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.

23. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

24. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.airquality.utah.gov

The annual emissions estimation below includes mobile equipment and associated fugitive dust emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for Carbon Resources, LLC, Kinney 2 Mine are currently calculated at the following values:

	Pollutant	Tons/yr
A.	PM_{10}	19.00

UDOT Highway Access Permit

MSHA Permit

Carbon County Conditional Use Permit

Carbon County
Utah's Castle Country

CONDITIONAL USE PERMIT
Carbon County Planning
120 East Main Street Price, Utah 84501

THIS CERTIFICATE ISSUED AS PER SECTION 5.4 AND 4.2.17 OF THE DEVELOPMENT CODE OF CARBON COUNTY TO:

CARBON RESOURCES, LLC
c/o Gregory Hunt
PO Box 950
Sandia Park, New Mexico 87047

GRANTING A CONDITIONAL USE PERMIT TO CONSTRUCT AND OPERATE A COAL MINE IN SECTIONS 32 AND 33, TOWNSHIP 12 SOUTH, RANGE 7 EAST.

DATED: September 20, 2010

EXACTIONS:

1. Prior to any Building Permits being approved or issued all fees shall be paid.

2. Approval by all Agencies that govern, including the Utah Division of Oil, Gas, and Mining, and the Utah Division of Environmental Quality shall be required prior to any Building Permits or Business License being issued.

APPROVED

Dave Levanger
Director of Planning

Utah DNR Div. of Water Rights, Small Dam Permit (Negative Determination)

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Water Rights

KENT L. JONES
State Engineer/Division Director

August 31, 2010

Ben Grimes
Carbon Resources, LLC
P.O. Box 954
Sandia Park, NM 87047

Re: Application to construct a small dam - Kinny No. 2 Mine

We have completed our review of your application to construct a small dam in Carbon County, Utah (section 33, T12S, R7E, SLB&M); the proposed structure will impound 3.18 acre-feet of water.

According to the application and attached drawings, the reservoir will be dug into the natural ground with no water storage above the natural grade. As such, this facility will not be considered to be a dam and Dam Safety approval is not necessary.

Water right issues must be resolved with the South Eastern regional office in Price, Utah. They can be contacted at 435-613-3750.

Sincerely,

David K. Marble, P.E.
Assistant State Engineer / Dam Safety

DKM/jm

cc: Marc Stilson – Regional Engineer
Hansen, Allen & Luce

1594 West North Temple, Suite 220, PO Box 146300, Salt Lake City, UT 84114-6300
telephone (801) 538-7240 - facsimile (801) 538-7467 - TTY (801) 538-7458 - www.waterrights.utah.gov

Utah Department of Commerce License Number

CARBON RESOURCES, LLC

Update this Business

Entity Number: 7201220-0161
Company Type: LLC - Foreign
Address: 34 VALLE HERMOSA Midvale, UT 84047
State of Origin: NV
Registered Agent: RONALD C BARKER
Registered Agent Address:
2870 S STATE ST Salt Lake City UT 84115

View Management Team

Status

Purchase Certificate of Existence

Status: Active *as of 04/05/2010*
Renew By: 12/01/2010
Status Description: Good Standing
Employment Verification: Not Registered with Verify Utah

History

View Filed Documents

Registration Date: 12/01/2008
Last Renewed: 04/05/2010

Additional Information

NAICS Code: 9999 **NAICS Title:** 9999-Nonclassifiable Establishment

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Visit this site with your mobile device

Commerce Searches

- Business Search
- Data Request
- Professional License
- Real Estate License
- Registered Principal
- Trademark
- Uniform Commercial Code
- Verify Utah

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Dwelling within 300 Feet Waiver Letter

February 9, 2009

Clay Wisdom, CFO
Carbon Resources, LLC
P.O. Box 11789
Albuquerque, NM 87192

Dear Mr. Wisdom:

As the owner of the property described on the attached Exhibit A, which property lies within 300 feet of the boundary of property upon which Carbon Resources, LLC seeks to secure a permit from the Utah Department of Oil, Gas and Minerals to conduct coal mining and reclamation activities, please be advised that we have no objection to those activities.

We waive any and all objections to your conducting coal mining and reclamation activities within 300 feet of our property.

Very truly yours,

L2H Enterprises, Inc.

By: Jim Levanger, President

EXHIBIT 5

Public Notices and Proof of Publication, Hearing Notices and Documentation

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and the first publication was on the 24th day of June, 2008, and that the last publication of such notice was in the issue of such newspaper dated the 15th day of July, 2008.

Richard Shaw - Publisher

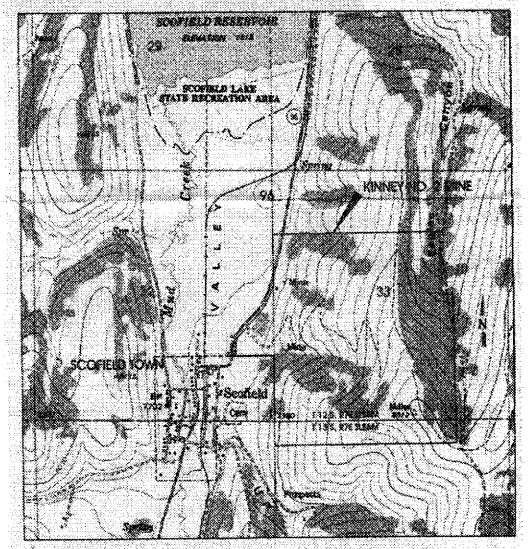
Subscribed and sworn to before me this 15th day of July, 2008.

Notary Public My commission expires January 10, 2007 Residing at Price, Utah

PUBLIC NOTICE

APPLICATION FOR PERMIT TO MINE COAL
UNDER UTAH COAL MINING REGULATIONS R645
CARBON RESOURCES, LLC
CARBON COUNTY, UTAH

Notice is hereby given that Carbon Resources, LLC., P.O. Box 11789, Albuquerque, New Mexico 87192, with Ronald C. Barker as Resident Agent, 2870 S. State Street, Salt Lake City, Utah 84225-3624, has filed an application with the Utah Department of National Resources, Division of Oil, Gas and Mining for a Permit to mine coal pursuant to R645 of the Utah Coal Program Regulations. The permit area is shown on the Scofield U.S. Geologic Survey 7.5-minute Quadrangle map.



The permit area affected is located in Carbon County, Utah as follows:

Township 12 South, Range 7 East, Salt Lake Base & Meridian

Section 32
E2SE4

Section 33
S2, S2N2

Township 13 South, Range 7 East,
Salt Lake Base & Meridian

Section 4
N2N2

Copies of the application can be reviewed at the following locations:

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and the first publication was on the 24th day of June, 2008, and that the last publication of such notice was in the issue of such newspaper dated the 15th day of July, 2008.

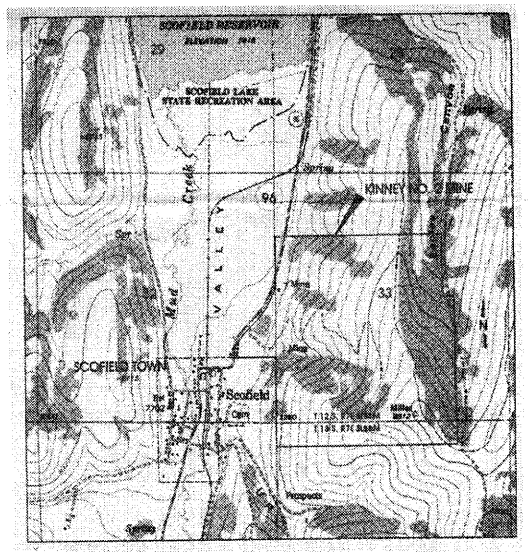
Richard Shaw - Publisher

Subscribed and sworn to before me this 15th day of July, 2008.

Notary Public My commission expires January 10, 2007 Residing at Price, Utah

Publication fee, $ 798.72

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011



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E2SE4

Section 33
S2, S2N2

Township 13 South, Range 7 East,
Salt Lake Base & Meridian

Section 4
N2N2

Copies of the application can be reviewed at the following locations:

Carbon County Recorder's Office
120 East Main Street
Price, Utah 84501

Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

Mining operations will be conducted within 100 feet of Utah Highway 96.

Written comments, objections, or requests for informal conferences on the application may be submitted to the Division of Oil, Gas and Mining at the address above.

Closing date for submission of such comments, objections and requests for an informal conference on this proposal must be submitted by August 14, 2008.

Published in the Sun Advocate June 24, July 1, 8 and 15, 2008.

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Richard Shaw, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and the first publication was on the 10th day of June, 2010, and that the last publication of such notice was in the issue of such newspaper dated the 1st day of July 2010.

Richard Shaw – Publisher

Subscribed and sworn to before me this 1st day of July, 2010.

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, $ 798.72

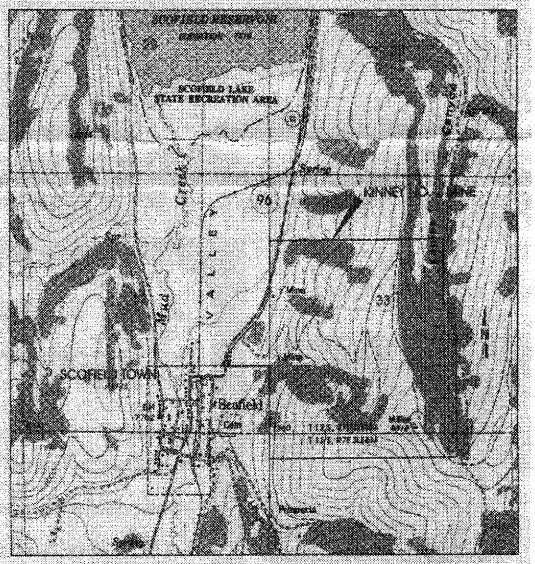
LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
645 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

To view public notices on our Web site, please visit

PUBLIC NOTICE

APPLICATION FOR PERMIT TO MINE COAL
UNDER UTAH COAL MINING REGULATIONS R645
CARBON RESOURCES, LLC
CARBON COUNTY, UTAH

Notice is hereby given that Carbon Resources, LLC,, P.O. Box 954, Sandia Park, New Mexico 87047 with Ronald C. Barker as Resident Agent, 2870 S. State Street, Salt Lake City, Utah 84225-3624, has filed an application with the Utah Department of National Resources, Division of Oil, Gas and Mining for a Permit to mine coal pursuant to R645 of the Utah Coal Program Regulations. The permit area is shown on the Scofield U.S. Geologic Survey 7.5-minute Quadrangle map.



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Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

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Richard Shaw – Publisher

Subscribed and sworn to before me this 1st day of July, 2010.

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, $ 798.72

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

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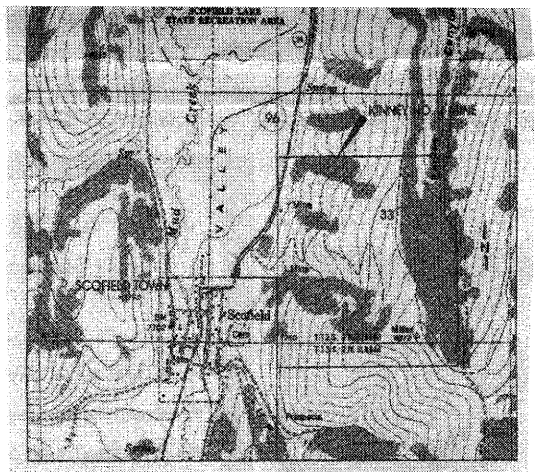

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Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

Mining operations will be conducted within 100 feet of Utah Highway 96.

Written comments, objections, or requests for informal conferences on the application may be submitted to the Division of Oil, Gas and Mining at the address above.

Closing date for submission of such comments, objections and requests for an informal conference on this proposal must be submitted by August 1, 2010.

Published in the Sun Advocate June 10, 17, 24 and July 1, 2010

EXHIBIT 6

Soils Report and Appendices

APPENDIX 1: ACZ Spreadsheets &Lab Sheets

APPENDIX 2: IML Analysis Sheets

APPENDIX 3: Field Pedon Descriptions

APPENDIX 4: Soil Pit Profile Photos

APPENDIX 5: Micromonolith Photos

APPENDIX 6: Official Soils Series Descriptions

RECLAIMED COAL: SGS Lab Sheets

SOIL SURVEY REPORT

KINNEY No. 2 MINE

CARBON COUNTY, UTAH

Prepared for:
Carbon Resources, LLC
PO Box 1789
Albuquerque, NM 87192

Prepared by:
Bruce Chesler
PO Box 355
Escalante, Utah 84726

November 6, 2007

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Figure 1. Soil Map Unit ID Legend with Sampled Soil profile locations
Figure 2. Prime Farmland Map, from WEB Soil Survey

Table 1 Soil Analysis and Analytical Methods
Table 2 Utah Oil Gas and Mining Soil Suitability/Unsuitability Evaluation Guidelines
Table 3 Soil Map Unit Descriptions and Physical Parameters
Table 4 Soil Family Classifications by Pedon Location
Table 5 Proposed Surface Disturbances by Soil Map Unit
Table 6 Soil Suitability Data
Table 7 Erodibility Factor Calculations and Input Parameters
Table 8 Summary of Soil Limitation, Salvage Depths, and Salvageable Volumes

Appendix 1 ACZ Laboratories, Inc. Lab Analysis Spreadsheets (2006)

Appendix 2 Intermountain Laboratories, Inc. Lab Analyses Spreadsheets (2007)

Appendix 3 Soil Profile Descriptions

Appendix 4 Soil Profile Photographs

Appendix 5 Soil Micromonolith Box Photographs

Appendix 6 Official Soil Series Descriptions

Introduction

During October, 2006, 23 soil profiles were excavated by backhoe within an area containing previous underground coal mining disturbances on approximately 21 acres. An adjacent soil survey and sampling of 13 additional soil profiles was made during September, 2007 on an additional 16 acres to the south west. The southern portion of the survey area is dominantly comprised of disturbed lands containing reclaimed soil with alternative reclamation materials provided through the State of Utah Division of Oil Gas, and Mining Abandoned Mine Lands Program (AML) around 1986. The entire soil survey area, referred to in this report as Kinney No.2 Mine Soil Survey, is 36.7 acres in extent found along a 700 feet wide by approximately 1 mile long strip of private land adjacent to Highway 96. It is located approximately one quarter mile to the northeast of Scofield, Utah. The 27.3 acres shown on Figure 1 is that portion (sub-set) of the 36.7 acres survey area where disturbance is planned for construction of the surface facilities of the mine. The soil survey and sampling of soil profiles were made as part of Carbon Resources, LLC application to mine coal in this area, and is intended to identify and characterize the major soil types found within 36.7 acres of the coal mine permit area. The fieldwork portion of this soil survey was conducted by Bruce Chesler, an independent soil survey contractor, with the assistance of Greg Hunt of Carbon Resources, LLC. As a guide in planning the scope of work to be addressed in this soil survey report, Utah Division of Oil, Gas, and Mining (UDOGM) Guidelines of Management for Topsoil and Overburden (UDOGM, 2005) were consulted.

Objectives:

Map soils at Order 2 level on approximately 37 acres of the Kinney No.2 Mine Permit Area.

Describe and sample representative soil profiles at 6 inch to 24 inch depth increments in previously disturbed (AML) sites. Sample by horizon, and describe and classify soils to family level, in areas with undisturbed soil profiles.

Analyze soil physiochemical parameters for each sample according to methodologies suggested in 2005 UDOGM Guidelines for Management of Topsoil and Overburden.

Rate the soil's ability to be used as plant growth medium in soil reclamation for each soil map unit based on UDOGM guidelines.

Calculate an average salvageable topsoil or alternative reclamation material volume, for each soil map unit within the approximately 37 acres of the Mine Permit Area.

Make recommendations for management practices which may overcome any deficiencies in the quality and quantity of topsoil and alternative reclamation material which may be feasibly salvaged within the Mine Permit Area.

Soil Survey Setting

The survey area is located within portions of Sections 33 and 28, T 12 S, R 7 E, approximately one quarter mile northeast of Scofield, Utah. Elevations range between 7500 and 7900 feet. Previous coal mining in this area has affected over half of the natural landscape with abandoned mine portal and staging areas, coal mine dumps, roads and abandoned railroad grades, cut slopes and haul routes. There have been no previous attempts to salvage topsoil from the previous mining disturbance activities in this area. The present soil and alternate reclamation materials found on-site represents the extent of material available for post mining reclamation efforts at the Kinney No.2 permit area. As the AML alternative reclamation materials comprise a significant proportion of the materials found within the southern half of the survey area, a primary focus of this report will be to address their chemical properties and their plant re-growth potential. The 1986 AML reclaimed acreage generally contains coal/spoil/soil mixtures which I will refer to in this report as alternative reclamation materials. Soil Map Units used to describe these lands are referenced as either Mine Dumps (SCS, 1988) or Disturbed Lands, in this report. The alternative reclamation materials found in this area's backhoe excavations reveal layers of AML- placed subsoil materials covering coal that was historically dumped or spilled during mining, transport, or storage of coal and or coal abandoned in the old stock pile, along with buried natural subsoil horizons. This coal buried by AML will be referred to throughout this report as "reclaimed coal".

Access throughout the survey area was made by driving graded dirt roads on private lands, one which switchbacks up toward a ridgeline from the south end of the property, and one which leads south to north along the axis of the two mile long permit area. The geomorphology of the surrounding landscape is dominated by a fault block graben valley which contains Mud Creek drainage to the west, flowing north into Scofield Reservoir. Along the Mud Creek floodplain is an approximately one acre slice of the Kinney No.2 property, containing alluvial soils which I've sampled to represent the floodplain terrace soil types west of Highway 96. Steeper slopes comprised of colluvium and mass wasted landslide materials derived from Black Hawk Formation sedimentary rocks are the dominant and primary soil forming materials within the Order 2 soil survey area.

The colluvial material may contain less rock fragment content and finer soil materials in concave slope positions and at junctions of several side canyons, which dissect slopes within the survey area from the east. The sedimentary rock parent materials include limestone, calcareous sandstones, and siltstones. Mass wasting soil and colluvial deposits are noticeable within all soil map units and on various slope gradients across the soil survey area. These ancient landslide deposits have randomly distributed soil and geologic parent materials across the survey area in a way which makes predicting soil depths, rock content, and textures of soil profiles challenging for me. The vegetation is characterized by sagebrush on west to southerly aspects of the mountainsides, and pockets of aspen forest with snowberry understory located on north to easterly facing

slopes. The previously disturbed AML reclamation lands are dominated by Rubber Rabittbush and Wyoming Big Sagebrush. Slope gradients are steepest along the east side of the survey area, with moderate to gently sloping areas along the lower side slope and toeslope positions to the west. Soils with rock fragment contents of over 40 percent in their profiles are common within the survey area on all aspects and across all slope shapes.

Previous Soil Surveys

The Order 3 soil survey which includes the Kinney No.2 Mine permit area was reviewed (SCS, 1988). Sheet #6 of the Carbon Area Soil Survey provides 4 map unit delineations mapped by SCS in the Kinney No.2 permit area, which includes six soil map unit components, or Soil Series, and one Miscellaneous Land type. The Trag-Croyden complex (Map Unit 117) represents much of the steeper mountain slope positions, and Trag-Bege-Senchert complex (Map Unit 118) occurs to a lesser extent on toeslope positions along the southern edge of the permit area. Silas loam and Silas-Brycan loams (Map Units 108, 109) are mapped along the one acre of the permit area found within alluvial bottomlands along Mud Creek. One Miscellaneous Land Type, Mine Dumps, was described in the SCS Soil Survey Report for the areas with previous coal mining disturbance.

Trag Series has recently been revised in its extent by NRCS soil scientists in the Carbon County Area, to characterize soil types found with granitic parent material. Tie Creek Series, classified as a Fine-loamy, Typic Argiustoll, is a Soil Series which has been established in other portions of Carbon County. This Series is currently being used to represent sedimentary rock influenced soils found with sagebrush vegetation in frigid soil temperature regimes (personal communications, Leland Sasser, NRCS Price Field Office). Sagebrush vegetation and a frigid soil temperature regime represent the dominant soil ecotypes and climate in this area. The Tie Creek soil profile is very deep, has an argillic subsoil horizon, and includes some calcium carbonate accumulations in its subsoil. Croyden Series, a fine-loamy, Typic Argicryoll, is mapped by SCS on aspen forested sites in this area, and is usually about 50 inches to weathered sandstone bedrock and has an argillic horizon in the subsoil. The Bege soil Series is shallow to sandstone bedrock, and was not found within backhoe excavations to be a representative soil type along colluvium dominated lower side slopes. Senchert Series is a moderately deep to bedrock (20 to 40 inches) soil found under aspen understory, and occurs occasionally on spurs of ridges in this survey area. Official Soil Series descriptions from Carbon Area Soil Survey of several of these related soil types are included in Appendix 6.

There has been no attempt in this report to match soil profile descriptions described in the field to the Soil Series level of soil classification. The focus of this report is to identify

and rate soil properties as they affect feasible topsoil salvage operations. Soil family level classifications were used in documenting soil types.

Methods

In October 2006, 1:24,000 aerial photographs and mine plan schematic maps were reviewed. On a 1:6,000 scaled base map of the survey area, preliminary soil map unit boundaries were drawn. These map units were designed primarily with the intent to separate areas of previous surface disturbances (mainly alternative soil reclamation materials) from natural soil areas. The remote sensing effort was further refined during October 2007, with use of Utah State's (AGRC) high resolution aerial orthophotographs, which examination of has provided more accurate determinations for the extent of AML and other surface disturbances (Ben Grimes, personal comm.). Other factors influencing soil map unit design are slope gradients, aspect, and vegetation changes. The soil map units are designed to accommodate the intent of this project's objective of evaluating the major soil type's ability to be salvaged feasibly and then to be used as a plant growth medium in reclaiming this site. Slopes with steeper than 50 percent gradient, or soils with greater than 50 percent coarse fragments in their profile are regarded as impractical for conventional bulldozer scraping and feasible topsoil salvage practices, and were therefore not sampled in this survey.

On October 15, I met with Greg Hunt of Carbon Resources LLC and backhoe operator Mike Erkkila of Scofield, and began a field reconnaissance of pre-delineated soil map units by driving two access roads which bisect the survey area. Where available, road cut exposures were taken advantage of by cutting back with shovels and backhoe, to sample and describe soils within the survey area. A minimum of one representative soil profile was chosen for each map unit, and in the case of previously disturbed areas, the density of soil backhoe pits was increased due to the greater variability of these soil types. A total of 18 soil profiles were excavated and recorded during the following three days according to A Field Guide for Describing and Sampling Soils Version 2.2 (Schoeneberger, et al., 2005). Photographs were taken of each soil pit, and micromonolith sample boxes were assembled from each soil profile, photographed, and then stored for reference.

An average of 4 to 5 sample increments of soil materials and coal samples were taken from each soil profile, placed in gallon-sized plastic bags, and shipped to ACZ Laboratories, Inc. (ACZ) in Steamboat Springs. The amount of soil samples sent to the lab total 96 increments, and the number of coal samples sampled within five of the soil profiles total six. On November 3, 2006, all 102 of the samples had been received by ACZ. Samples were analyzed according to UDOGM Guidelines (Topsoil Guidelines, Tables 2 and 3, 2005) and results were reported on December 21, 2006.

An additional sampling and soil survey trip was made to Kinney No.2 soil survey area during September, 2007. This 3 day sampling excursion was dedicated to describing the

soil resources of the Hansen Surface (about 15.3 acres) located to the south and west of the 2006 sampling area. During this trip, a partial review of the soil profiles excavated during 2007 was made on-site with UDOGM soil scientist Priscilla Burton. Thirteen additional soil profiles were excavated by backhoe, and a total of 52 soil horizons, including 2 coal buried samples, were delivered to Intermountain Laboratories, Inc. (IML), Sheridan Wyoming on September 8. Results of the IML lab analyses were made available on Sept. 18, 2007.

Laboratory Analysis and Data Interpretation

Laboratory analysis of soil samples collected from 31 backhoe pits, hand-dug holes, and road cut excavations were conducted to determine chemical and physical properties of soils within the 36.7 acre Kinney No.2 soil survey area. Areas of previously disturbed land found within the southern portion of the soil survey area containing a majority of the planned coal mining building facilities were given closer scrutiny by increasing the soil sampling frequency. The laboratory analyses performed on all of the soil samples and the associated coal samples are provided in Table 1. In addition to the standard UDOGM lab parameter for topsoil suitability, Acid-Base Potential, Boron, Selenium, and Sulfur, and Total Organic Carbon percentages were analyzed for coal samples taken at 9 sample locations and for the 13 associated soil horizons (AML) at the following sites: D-3, D-4, D-9A, D-9B, and D-11, 06 –SP-07, 13-SP-07.

These data, along with soil profile and map unit descriptions, were used to classify soil types (USDA, 2006) and to assess the suitability of soils as primary plant growth medium for reclamation. The Utah Division of Oil, Gas, and Mining topsoil suitability ratings are listed in Table 2. Soil suitability criteria and four rating categories are also provided in Table 2. Based on numeric values assigned to each category (1 to 4), an average (or overall), cumulative, and maximum (highest) score determines the ultimate rating for each sample. However, some parameters are more important than others and some plant growth limiting factors may be readily overcome using proper management practices. For instance, available water holding capacity and soil erodibilty (K-factor), when adjusted for the higher coarse fragment content of these particular soils, is often rated less than if only the fine earth fraction of the soils are considered. The higher percentage of rock volume found in these soils may contain additional pockets of moisture beneath them, which are stored and used by plants during dryer periods of the year. Also, the higher coarse fragment contents of soil effectively shelter silty and other finer-textured soil particles from wind and water erosion.

Estimates of soil available water holding capacity (AWHC) were made using Saxton, et al. SPAW Soil Modeling Calculator, available on the Web. Permeability class (Rawls et al. 1982), and hydrologic group (Rawls et al. 1982) were based on soil texture of the major component of each soil map unit and adjusted for coarse fragment contents. The procedures found in Soil Survey Manual (USDA 1993b) were used to estimate surface

runoff class. The estimated root restricting depths were based on soil profile observation in the field, by such characteristics rock distribution, or bedrock layers.

The soil erodibility factors (K factors) were calculated based on the numerical representation of the nomographs typically used to calculate the erodibility of the fine earth fraction (Kf) and entire soil including rock fragments (Kw). This calculation involves the use of several variables including: the percentage of silt and very fine sand, soil organic matter, soil structure, and permeability. The procedures and calculation used to estimate the soil erodibility factors are provided in the National Soil Survey Handbook (USDA 1993a pages 618-30 and 618-32). The higher the K value, the more susceptible the soil is to sheet and rill erosion by water.

Soil Survey Results

Six soil map units were identified at the Order 2 level on 36.7 acres of the permit area. Figure 1 shows the location of the Kinney No.2 Mine Order 2 Soil Survey area, Soil Map Unit Identification Legend, and 31 of 36 soil sample site locations. Five locations are north of the present permit application boundary and not shown on this map. The Soil Map Unit ID Legend includes 5 natural soil map units and two previously disturbed map units. Family level soil classifications are provided for each of the natural soil map unit components. Three slope breaks, A: 0-35 percent, and B: 35-70 percent, C: 0-3 percent, were used to differentiate natural soil mapping units. Two slopes breaks, 0-20 percent, and 20-50 percent were used to differentiate the Disturbed Lands (DA, DB) map units. Of the 31 soil sample locations, 16 are located within previously disturbed/reclaimed areas and 15 were sampled from non-disturbed, natural soil landscapes.

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Important and prime farmland determinations for this area were assessed during September 2007 using the NRCS WEB SOIL SURVEY. Figure 2. Contains a page printed form this website listing the Soil Map units found in the area of this soil survey, and their Prime Farmland suitability ratings (NRCS, 2007). There are no prime farmland soils or soils of statewide importance found within areas of concern in this soil survey report, primarily limited by a cold climate (growing season length), slope steepness and rock fragment contents.

The laboratory data from ACZ (2006 sampling, including 5 sample sites located outside of present permit application) are presented in Appendix 1. Intermountain Laboratories, Inc. data (from 2007) are shown in Appendix 2. Soil pedon descriptions for the 36 profiles are provided in Appendix 3. Soil profile photographs with sampled depth increments are shown in Appendix 4. Soil micromonolith box samples for the 36 sites are provided in Appendix 5. Appendix 6 contains three Official Soil Series Descriptions which closely resemble soils described in this report, and are published in the Soil Survey of Carbon Area, Utah Report (SCS, 1988).

Table 1 lists the soil analyses and the laboratory methods used by ACZ and IML to determine soil physiochemical properties. Table 3 shows the six Map Units, their major components, and the physical parameters typically used to assess impacts to soil resources and feasible soil management and handling options. Table 4 identifies each soil sample site with its family taxonomic classification. Classifications for profiles described within previously disturbed areas are listed as Disturbed Area Soils. Table 5 lists the soil map unit delineations by their acreage. Table 6 contains the laboratory data used to assess soil suitability and the various rating (highest, average, and cumulative ranking) based on comparison with the UDOGM topsoil suitability rating guideline provided in Table 2. Table 7 contains soil erodibility (K factor) calculations and input parameters. Table 8 is a summary of all of the identified soil limitations, and estimated soil salvage depth and salvage volumes by soil map unit.

Two Soil Orders were described within the undisturbed lands (Map Units 1B, 2A, 2B, 3A) of Kinney No.2 Mine Order 2 soil survey area, Mollisol, and to a lesser extent, Alfisol. Inclusions of Inceptisols were also noted. A 10 –15 inch dark topsoil layer (A horizon) with 2 to 3 feet of very stony to bouldery coarse textured subsoil (B to C horizons) characterize the soils of these areas. Soils with over 10 percent coal fines on the surface are common in the disturbed/reclaimed area of the survey area, and these "reclaimed coal" dump areas are identified in this report as Disturbed Area Soils (Map Units DA and DB). It has proven difficult for me to model or predict the depths to and extent of "reclaimed coal" fines and chunks that occurs within the previously disturbed area. Soils located within Disturbed Areas contain a highly variable mixture of soil and rock material, mixed with "reclaimed coal" deposits. A common feature of both undisturbed and reclaimed sites across the survey area is the high percentage of coarse fragments found throughout these profiles. Exceptions to this case are found in soils located on concave lower slope positions (Map Unit 1B), and along floodplain terraces and drainages (map unit 3A).

Following are brief descriptions of the six map units.

DA. Disturbed area soils, 0-20 percent slopes

This map unit occurs in previously disturbed AML reclamation area throughout the soil survey area which includes former dumps, portals, and staging areas, and along abandoned haul and rail roads. The entire area appears to have been regraded since 1986 to conform to the moderate to slightly sloping toeslopes in context with the adjacent natural slope gradients. Mixtures of soil with alternative reclamation materials from the area are combined with "reclaimed coal" chunks and fines, and are distributed in a way making soil taxonomy inapplicable. Vegetation is a mixture of seeded grasses and Rubber rabbitbrush. Slope gradients are between 0 and 20 percent, the soil is well drained, and has a moderate permeability. Some concrete foundations of abandoned structures are found within this map unit. Eighty percent of the map unit are classified

Disturbed land soils, and 10 percent each are Fine-loamy and Loamy-skeletal, Typic Haploxerolls found on undisturbed soil landscapes with sagebrush and grass vegetation.

DB. Disturbed area soils, 20-50 percent slopes

This map unit is also located within previously disturbed AML reclamation areas, located primarily in the southern portion of the survey area. Parent materials include sandstone, limestone, and mudstones, Slopes range between 20 and 50 percent and soils are well drained and have a moderate permeability. There is a mixture of reclaimed materials, up to 20 inches depth comprised of subsoil with "reclaimed coal" covering the natural soil profiles. Depths of the reclaimed material covering the natural soils profile vary considerably across the map unit, and are not easily predicted by surface features. Eighty percent of this map unit is comprised of Disturbed land soil containing "reclaimed coal" and alternative reclamation materials. Vegetation is comprised of seeded grasses and Rubber Rabbitbrush, with a small proportion of sagebrush and aspen trees. Included are 10 percent Loamy-skeletal Typic Haploxeroll soils on undisturbed lands, with a mix of sagebrush and aspen vegetation. Another ten percent inclusion are Fine-loamy Typic Argixeroll soils on undisturbed land found on concave slope positions.

1B. Typic Haplocryoll loamy skeletal – Typic Argicryoll, coarse-loamy Complex, 35-70 percent slopes

This soil map unit is found on steeper mountain side slopes of the permit area with aspen vegetation and slopes above 35%. The parent materials are colluvial sandstones, shale, and limestones from the Blackhawk Formation. Soils are moderately deep to deep, well drained, and have a moderate permeability. Typic Haplocryoll, loamy-skeletal comprise 50 percent of this map unit. Typic Argicryoll, coarse-loamy comprise 40 percent of this map unit. Included in the map unit are ten percent Pachic Haplocryoll fine loamy soils located on concave slope positions.

2A. Typic Argixeroll, loamy-skeletal – Typic Haploxeroll, loamy-skeletal Complex, 0-35 percent slopes

This map unit is located on colluvial side slopes and toeslopes with sagebrush vegetation and slopes less than 35%. Soils are deep to very deep, well drained, and have a moderate permeability. Soils with south to westerly aspects under sagebrush vegetation types in this area have a frigid temperature regime. Loamy–skeletal, Typic Argixerolls comprise 50 percent of this map unit, and Fine-loamy Typic Haploxeroll comprise 35 percent of the map unit on concave slopes. Included in the map unit are 10 percent soils with pachic epipedons on concave lower sideslopes (Senchert Series), and 5% soils that are shallow to bedrock on ridges and convex sideslopes (Bege Series).

2B. Typic Argixeroll, loamy-skeletal Consociation, 35 - 70 percent slopes

This map unit is found on steep colluvial sideslopes with sagebrush and grass dominated vegetation. Mixed sedimentary rocks are the parent materials. The south to westerly aspects have a frigid temperature regime. Slopes are between 35% and 70% and soils are moderately deep to deep and well drained, with a moderate permeability. Loamy-skeletal Typic Argixerolls comprise 80 percent of this map unit. Included in the map unit are 10 percent shallow to bedrock soils on convex slopes, and 10 percent Pachic Haploxerolls on concave slope positions.

3A. Cumulic Argicryoll Fine-loamy, Consociation, 0-3 percent slopes

This map unit is of limited extent (0.8 acre) within the Kinney No.2 permit area, and is located west of Highway 96 on alluvial terrace bottomlands of the Mud Creek drainage. No backhoe pits were excavated in this map unit; soil sampling was by hand-excavated pits to 40 inches. The area is characterized by seasonally moist subsoil resulting from groundwater and Scofield Reservoir level fluctuations in the area. Soils are very deep, with stratified loam to silt loam textures, and are faintly mottled below 40 inches. Vegetation includes grass, sedges, and weeds. Ninety percent of this map unit is Silas Series soil types. Included in this map unit are five percent soils with 20 inches cover of coal fines with alternative reclamation material, found along depositional areas adjacent to the highway berms and associated drainage culverts, and five percent soils with a coarse- loamy particle size class in their control section.

Soil Salvage

The determination of soil suitability depends on the intended use of the soil. Soil intended for reclamation should have a sufficient depth and quantity to permit economic salvage and be of suitable quality and texture. Soils management considerations include the development of practical methods for soil salvage, stockpile construction, redistribution onto regraded spoil, seedbed preparation, erosion protection, and the rapid establishment of perennial and permanent vegetation.

Soil map unit salvageability, plant growth limiting factors, and the estimated volume of plant growth medium within the 27.3 acre Kinney No.2 Mine planned disturbance area provided in Table 8 which is a subset of the 36.7 soil survey area within the controlled property. These estimates were based on soil profile descriptions (Appendix 3), comparison of the suitability rating guidelines (Table 2) with physicochemical soils data (Table 6), size of the map unit within the proposed disturbance (Table 5), estimated depths of suitable soil in each map unit component, and the proportion of each map unit component for which soil salvage was considered feasible.

The factors limiting soil suitability in the 27.3 acre Kinney No.2 Mine Order 2 soil survey include Total Organic Carbon content (found in most alternative reclamation materials), available water holding capacity in the soils with over 40% coarse fragments, K-factor of the fine-earth fraction soil material of A horizons with minimal coarse fragment content, and slope gradients of over 50%. These limitations were identified based on the review of laboratory data and field description of coal distribution around and within the soil profiles, soil texture, and the ocular estimation for percentage rock content observed in the soil profiles. Slope gradients were determined using hand held clinometer.

Of the 154 samples tested within the 31 soil profiles, all tested good for electrical conductivity, SAR, and CaC03 percentage. All samples tested good for pH, with the exception of one sample (13-SP-07) which had pH values of slightly less then 6.5.

The water content, at saturation, of 151 of the samples rated good. Two sample increments from one site (1B-1) rated poorly, and one from site 13-SP-07 was fair, with saturation percentage of between 67 and 80 percent. The calculated available water capacity (AWHC), when corrected for coarse fragment content, for 87 of the soils rated good, 49 rated fair, and 18 were rated poor. The calculated soil erodibilty or K-factor for the fine earth fraction includes 123 rated good, 16 rated fair, and 15 rated poor. When coarse fragment contents are factored into the K-factor calculations, 144 samples are rated good, 3 are rated fair, and 7 are rated poor.

Soil textures of 152 of the coal and soil samples rated fair to good, with the majority of soils having a sandy loam, loam, or silt loam textures. Two of the subsurface soils rated poor with textures of silty clay (sites D-10, and 2A-5) and 2 coal samples (sites D-3 and 13-SP-07) had a poorly rated sand texture. The amount of very fine sand as proportion of total sand was generally between 15 and 30 percent.

Of 21 coal and coal- affected soil samples that were tested from 7 separate locations, all results for Boron results were good. They range between 0.46 and 2.30 mg/kg, well below the 5 mg/kg UDOGM acceptable limit. Of all of the selenium samples tested, 20 of 21 tested below lab detected limits. One sample, D-11 tested .007 mg/kg, below UDOGM acceptable standard of .15 mg/kg. Soil materials, alternative reclamation materials, and coal samples from 7 of the sample sites, are thus considered nonseleniferous and non-boroniferous.

The Acid- Base Potential for these 21 samples all rated good, with a lab calculations of between 5 and 38 available tons CaCo3 per1000 tons overburden in the samples. Total Organic Carbon for the 8 coal samples tested between 5 and 63 percent TOC. All of the "reclaimed coal" found buried within soil profiles, and mixed into the alternative reclamation material of soils of disturbed sites within the survey area, notwithstanding their distribution and thickness within soil profiles, are regarded as poorly rated in their topsoil suitability because of Total Organic Carbon percentages of over 10 percent. The issue of addressing the segregation and disposition of these coal fines is outside the scope of this soil survey report and will be a topic found in the topsoil salvage plan and the reclamation plan.

Based on these laboratory results and soil profile observations for 27.3 acres of the Kinney No. 2 Mine Order 2 soil survey area, the natural soil landscapes represented by Map units 2A, 2B, 1B, and 3A contain suitable growth medium of between 8 and 24 inches thickness that can be salvaged for reclamation of mine-related disturbances when found in contiguous areas of over an acre in extent. Map Units 1B and 2B, found on over 35 percent slopes, pose mechanical limitations in separating potential topsoil increments of less than 8 inch depth without inclusion of subsoil. Experience has shown that where less than about one foot of suitable materials are found on steep, rocky slopes, or close to shallow bedrock contacts, it would be impractical to strip, salvage and transport any of the suitable soils without including some subsoil material (B or C horizons) located at depths between one to two feet.

An exception to the available topsoil reclamation suggestion above is found within areas of disturbed land (map units DA and DB), where some of the alternative reclamation materials are mixed with varying amounts of "reclaimed coal" containing Total Organic Carbon contents of over 10 percent, and containing coal fines on the surface in excess of 15%. These soils are regarded as unsuitable for reclamation purposes, yet comprise significant proportions of the survey area. The variably-sized, buried bodies of "reclaimed coal" located within map units DA and DB may contain acid forming materials and should be contained separately from other suitable topsoil growth medium. However, based on the sample sites located within disturbed areas of this survey, the establishment of certain plants has successfully occurred in much of the previously disturbed area reclaimed by AML. The alternative topsoil materials used in 1986 may be argued as having had some success in providing adequate neutralizing affects when used in association with small amounts of coal fines (less than 15%) so that these materials

may repeatedly used, if necessary, as a source for additional alternative topsoil materials.

The exact extent of coal buried within previously disturbed Map units DA and DB cannot be precisely estimated by methodologies used to prepare this soil survey report. Additional core drilling in areas of previous disturbances and located within AML 1986 reclamation is recommended. This core drilling would allow for modeling of a better estimate of the quantities of "reclaimed coal" located in this area. Such an estimate of coal volumes could provide the information needed to decide whether economics of the stripping/ recovery of buried coal is feasible. In my judgment, potential additional reclamation materials could be made available from within map Units DA and DB if the isolation and recovery of "reclaimed coal" are deemed feasible. Separation of, and salvage for resale of the larger bodies of the "reclaimed coal" is perhaps an economically feasible management alternative. The removal from the AML areas of any potential acid toxicity resulting from "reclaimed coal" products provides assurance that buried "reclaimed coal" is isolated and separate from other nearby, suitable alternative reclamation topsoil materials.

According to the results of 154 soil sample analyses and a field survey of soil resources, an estimated 66.5 thousand cubic yards (yds^3) of suitable soil is salvageable within the 27.3 acres of Kinney No.2 Mine Order 2 soil survey area for use as plant growth medium for reclamation. Additional soil salvage volume may be possible if marginal soils (poorly rated soils by UDOGM Guidelines), along with use of some of the alternative reclamation materials mixed with coal fines, are considered necessary for overcoming deficiencies in topsoil balance. The plants presently growing on-site attest to the abilities of these previously disturbed lands alternative reclamation materials to grow vegetation.

Salvageable soil quantities may be more precisely estimated when detailed plans for the scheduling and mine development are completed. At that time, the detailed balance of salvaged soil materials and substrates can be calculated, and their storage or distribution can be determined and become part of the reclamation planning. Experience in soil salvage on large-scale mining projects has shown that field determination of soil salvage and suitability at the time of construction may be necessary. My recommendation is for a trained soil scientist to be present at time of soil salvage operations.

Potential Soil management Alternatives

Two potential reclamation uses for soils salvaged from Kinney No.2 Order 2 Soil Survey are:

1. Primary plant growth medium;
2. Seed, organic matter, and soil inoculum source

1. Primary Plant Growth Medium

Soils capable of acting as a primary plant growth medium for revegetation and reclamation are generally composed of soil materials rated as 1 or 2 according to the UDOGM guidelines. These soils are currently capable of supporting, in this case, native plant species that are adapted to conditions in the area. The physical and chemical properties of texture, pH, soluble salts content, sodium content, organic matter, etc. are in general not limiting for plant growth of native species. In some instances, soil material below the zone of active pedogenic processes should be suitable for reclamation.

2. Seed and Microbial Innoculum

The second subsidiary use of the surface soils is as a source for seed and plant propagules and microorganism inoculum. Seeds are generally contained in the top few inches of soils and are more abundant in the late summer and fall after flowering and seed set. Microbial inoculum is also contained in the top 2 to 8 inches of growth medium. Root propagules are typically found within the top 2 feet of the soil profile. Stockpiling of these plant propagules and microbial active materials significantly reduces their viability over time. If mine planning allows, soils should be applied within a short time following salvage and placed directly on regraded surfaces ('live handled').

Summary

There are some limitations to soil salvage in the proposed disturbed area within the Kinney No.2 Mine Order 2 soil survey area. The primary limitations are the available water holding capacity of soils containing greater than 50% rock content, slope gradients of over 50 percent affecting use of soil salvage machinery, soil materials with sandy textures, and an accurate determination of the quantity of coal found within the mixture of alternative reclamation materials located in Disturbed Lands Map Units DA and DB. Soil salinity, pH, calcium carbonate percentage, and plant nutrition do not pose any limitations to plant growth medium at the Kinney No.2 soil survey area. To ensure maximum utilization of the soils resource, soil salvage should be coordinated with the planning and construction phases of mining operations. A soil reclamation plan, at a later date, will have to address the issue of separation of the previous coal mining affected surfaces from natural topsoil, in the stripping and salvage operations.

Based on the soil descriptions in this report, the stripping, handling, storage, and application of the salvaged material can be estimated for reclamation planning. The estimated amount of salvageable soils was calculated based on depth and extent of soils found within the 36.7 acres within the Kinney No.2 Mine Order 2 soil survey area. All of the soil salvage estimates in this report are approximations.

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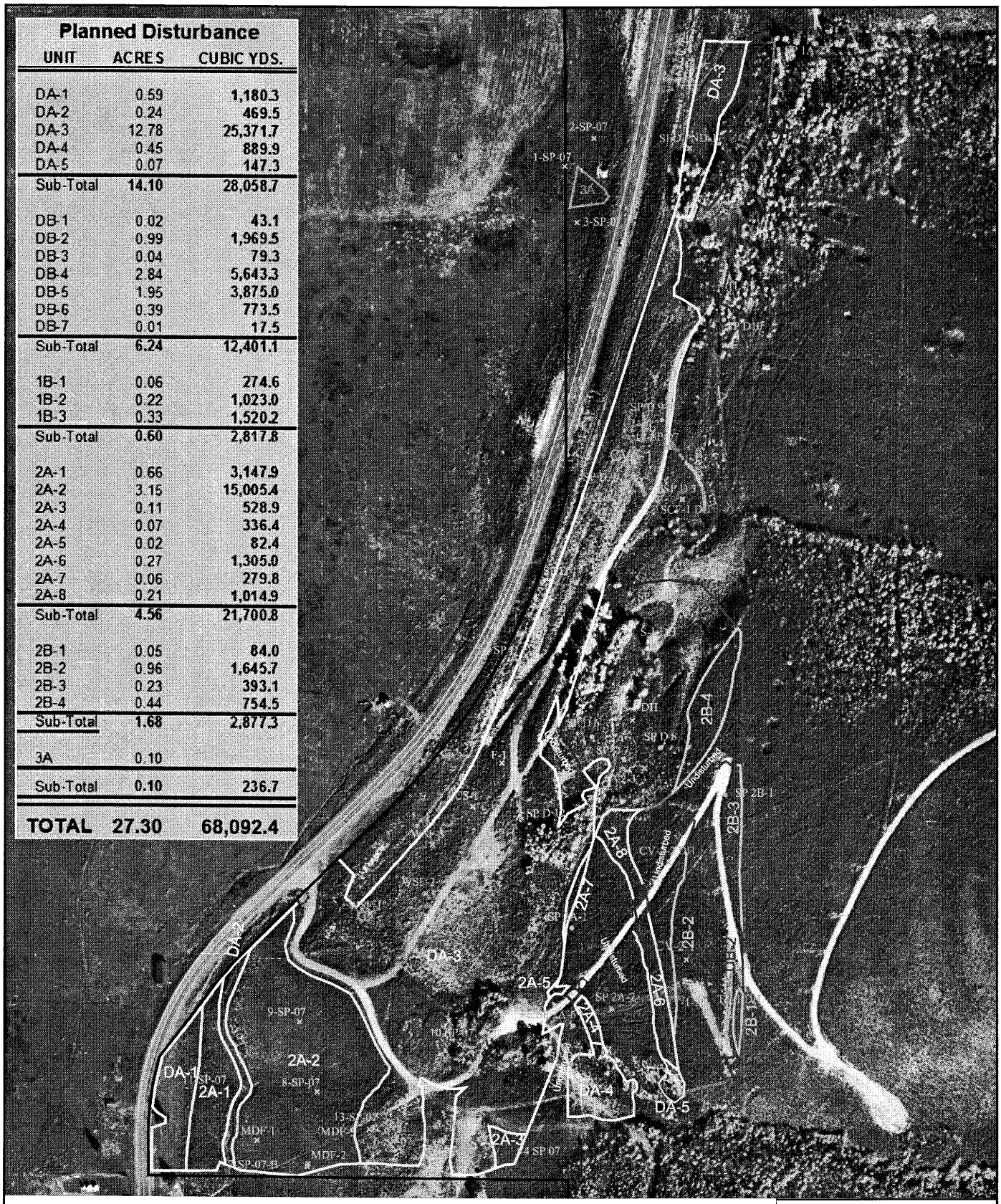
Planned Disturbance

UNIT	ACRES	CUBIC YDS.
DA-1	0.59	1,180.3
DA-2	0.24	469.5
DA-3	12.78	25,371.7
DA-4	0.45	889.9
DA-5	0.07	147.3
Sub-Total	14.10	28,058.7
DB-1	0.02	43.1
DB-2	0.99	1,969.5
DB-3	0.04	79.3
DB-4	2.84	5,643.3
DB-5	1.95	3,875.0
DB-6	0.39	773.5
DB-7	0.01	17.5
Sub-Total	6.24	12,401.1
1B-1	0.06	274.6
1B-2	0.22	1,023.0
1B-3	0.33	1,520.2
Sub-Total	0.60	2,817.8
2A-1	0.66	3,147.9
2A-2	3.15	15,005.4
2A-3	0.11	528.9
2A-4	0.07	336.4
2A-5	0.02	82.4
2A-6	0.27	1,305.0
2A-7	0.06	279.8
2A-8	0.21	1,014.9
Sub-Total	4.56	21,700.8
2B-1	0.05	84.0
2B-2	0.96	1,645.7
2B-3	0.23	393.1
2B-4	0.44	754.5
Sub-Total	1.68	2,877.3
3A	0.10	
Sub-Total	0.10	236.7
TOTAL	**27.30**	**68,092.4**



SOIL TYPES and
Planned Disturbance Areas

LEGEND

SP 2A1 * Soil Survey Sample Pit 2006 Field Work w/Lab Analysis

6 SP 07 Soil Survey Sample Pit 2007 Field Work w/Lab Analysis

WSF-2 × Soil Stability Sample Pit 2007 Field Work
Soil Horizion Data Only, NO /Lab Analysis

DB Disturbed Lands, 20-50% Slopes

1B Typic Argicryoll Consociaion, 35-70% Slopes

2B Typic Argixerolll Consociation, 35-70% Slopes

Permit Boundary (Portal Block)

N

0 300 ft

SCALE: 1:3,600 or 1" = 300'

Contour Interval 20 ft

This map is in the Kinney Coordinate System (KCS). It was projected from State Plane NAD83 to a vertical datum of 8,000 ft. using a Combined Factor (CF) of 1.0047927. To project back, add 7,000,000 to Northing and 1,700,000 to Easting, then multiply by the CF.

Carbon Resources LLC

KINNEY NO. 2 MINE

FIGURE 1

Planned Disturbed Area Soil Map

DRAWN BY: BC & GLH DATE: 9/20/-7

APPROVED BY: Gregory Hunt DATE: 12/31/2007

HANSEN ALLEN & LUCE inc ENGINEERS

23 S. Carbon Ave., Suite 21
Price, UT 84501

FILE: Fig 1 Soil Chemistry 07

USDA Natural Resources Conservation Service

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A A A

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Intro to Soils | Suitabilities and Limitations for Use | Soil Properties and Qualities | Soil Reports

Suitabilities and Limitations Ratings

Open All | Close All

Building Site Development

Construction Materials

Disaster Recovery Planning

Land Classifications

Conservation Tree and Shrub Group

Ecological Site ID

Ecological Site Name

Farmland Classification

View Description | View Rating

View Options

Map

Table

Description of Rating

Rating Options

Detailed Description

Advanced Options

View Description | View Rating

Forage Suitability Group ID (Component Table)

Hydric Rating by Map Unit

Irrigated Capability Class

Irrigated Capability Subclass

Nonirrigated Capability Class

Nonirrigated Capability Subclass

Land Management

Military Operations

Recreational Development

Sanitary Facilities

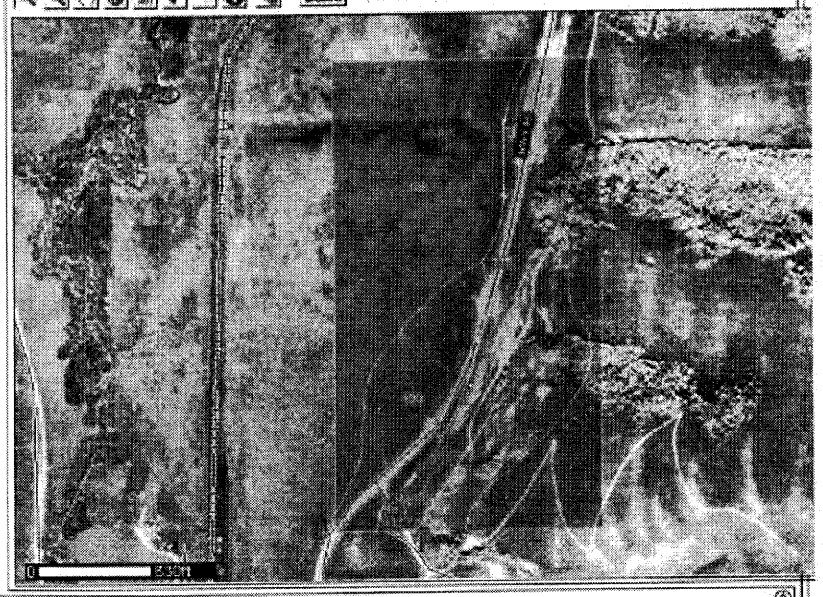
Vegetative Productivity

Waste Management

Water Management

Map — Farmland Classification

Scale (not to scale)



Tables — Farmland Classification — Summary By Map Unit

Summary by Map Unit — Carbon Area, Utah, Parts of Carbon and Emery Counties

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
29	Dumps,mine	Not prime farmland	17.0	19.7%
108	Silas loam	Not prime farmland	32.1	37.2%
109	Silas-Brycan loams	Not prime farmland	13.0	15.1%
117	Trag-Baje-Senchert complex	Not prime farmland	0.5	0.6%
118	Trag-Croydon complex	Not prime farmland	23.7	27.5%
Totals for Area of Interest (AOI)			**86.2**	**100.0%**

Description — Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options — Farmland Classification

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

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TABLE 1

Kinney #2 Mine - Soil Analyses and Analytical Methods

ANALYSES	METHOD
Boron, soluble (Hot Water)	M6010B ICP
Calcium, soluble (Sat. Paste)	M6010B ICP
Magnesium, soluble (Sat. Paste	M6010B ICP
Potassium, extractable (AB-DTP	M6010B ICP
Potassium, soluble (Sat. Paste	M6010B ICP
Selenium, soluble (Hot Water)	SM3500-Se.C
Sodium Absorption Ratio	Calculation
Sodium, soluble (Sat. Paste)	M6010B ICP
Acid Generation Potential (cal	M600/2-78-054 1.3
Acid Neutralization Potential	M600/2-78-054 1.3
Acid-Base Potential (calc on S	M600/2-78-054 1.3
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Co
Clay	ASTM D 422 Hydromete
Conductivity @25C	M120.1 - Meter, w/ S
Neutralization Potential as Ca	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Sand	ASTM D 422 Hydromete
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Silt	ASTM D 422 Hydromete
Solids, Percent	CLPSOW390, PART F, D
Sulfur Organic Residual	M600/2-78-054 3.2.4
Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4
Sulfur Sulfate	M600/2-78-054 3.2.4
Sulfur Total	M600/2-78-054 3.2.4
Texture Classification	ASTM D 422 Hydromete
Total Sulfur minus Sulfate	M600/2-78-054 3.2.4
Nitrate as N, extractable (KCL	Calculation: NO3NO2
Nitrate/Nitrite as N, extracta	M353.2 - Automated C
Nitrite as N, extractable (KCL	M353.2 - Automated C
Nitrogen, total Kjeldahl	M351.2 - TKN by Bloc
Phosphorus, extractable (AB-DT	M365.1 - Automated A

Table 2

Utah Oil Gas and Mining Soil Suitability/Unsuitability Evaluation Guidelines [1]

Criteria	Suitability Rating[2]			
	Good (G)	Fair (F)	Poor (P)	Unacceptable(U)
Saturation %	25 to 55	≥56 to 80	<25, >80	
pH	6.5 to 8.1	6.0 to 6.4, 8.2-8.5	5.5 to 6.0, 8.6 to 9.0	<5.5, >9.0
EC (mS/cm 25^0 C)	0 to 4	4 to 8	8 to 15	>15
SAR (Sodium Adsorption Ration)[a,b]	0 to 4	5 to 10	10 to 14	>14[a]
%$CaCO_3$	<15	15-30	>30	
Texture [c]	sl, l, sil, scl, sc, ls, lfs	cl, c, sicl, sc, ls, lfs	sic, s, sc, cos, fs, vfs	g, vcos
Total Organic Carbon	<10%			≥10%
Available Water Capacity [d]	>0.10, moderate	0.05 to 0.10, low	<0.05, very low	
K factor [e]	<0.37	0.37	>0.37	

[1] Utah Oil Gas and Mining, October, 2005. Guideline for Management of Topsoil and Overburden R645-301-200 Soils - Table 4

[a] For clay textured soils unacceptable SAR > 14. For sandy textured soils unacceptable is >20.

[b] For most Western soils, the SAR to ESP relationship is usually 1:1, up to ESP ≈ 20. If SAR> 20, then determine ESP (Evangelou, 2000).

[c] s=sand, l=loam, si=silt, c=clay, v=very, f=fine, co=coarse, g=gravel

[d] Available Water Capacity is adjusted for texture and coarse fragment percentage, and SAR

[e] K factor recommendations from the USDA Soil Conservation Service, 1978. National Soils Handbook Notice 24 (3/31/78). NSH Part II-403.6 (a). For prime farmland soils, the K factor times the percent slope should be a value of five or less for minimal erosion hazard.

Table 3
Kinney #2 Mine Order 2 Soil Survey - Soil Map Unit Descriptions and Physical Parameters

Map Unit ID #	Map Unit	Map Unit Component	% of Map Unit[1]	Landform	Depth to Bedrock inches	Parent Material	Drainage[2]	Bulk Density g/cm^3	AWHC[3] in/in	Perm Class[4]	Hydro Soil Group[4]	Surface Runoff Class[5]	Root Restriction Depth[8]	Soil Depth Class[8]
DA	Disturbed Lands, 0-20 percent slopes	Disturbed Soil	90%	toeslopes	40-60 plus	Coal Waste and reclaimed Topsoil	W	1.4	.02-.12	3	B	M	None	60 plus
		Lo-sk Typic Haploxeroll	10%					N/A	N/A	N/A	N/A	N/A	N/A	N/A
DB	Disturbed Lands, 20-50 percent slopes	Disturbed Soils	80%	lower sideslopes	60 plus	Coal Waste and reclaimed Topsoil	MW- W	1.4	.01-.13	3	B	M	None	60 plus
		Lo-sk Typic Haploxeroll	10%					N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Fi-lo Typic Argixeroll	10%					N/A	N/A	N/A	N/A	N/A	N/A	N/A
1B	Coarse-loamy Typic Argicryoll Consociation, 35-70 percent slopes	Co-lo Typic Haplocryoll	80%	sideslopes	60 plus	Mixed Colluvium from Black Hawk Fm.	EW-W	1.50	.06-.12	2	A	H	None	40-60
		Disturbed Soils	10%		40-60			1.4	.02-.12	3	B	H	None	60 plus
		Lo-sk Typic Argicryoll	10%		40-60			1.35	.03-.16	3	B	H	None	40-60
2A	Typic Argixeroll - Typic Haploxeroll Complex, 0-35 percent slopes	Lo-sk Typic Argixeroll	50%	toeslopes	40-60	Mixed Colluvium from Black Hawk Fm	MW-W	1.40	.03-.15	3	B	M	None	40-60
		Lo-sk Typic Haploxeroll	35%					1.40	.05-.11	3	B	M	None	40-60
		Inclusions	15%		40-60			1.4	.11-.15	3	B	M	None	40-60
2B	Typic Argixeroll Consociation, 35-70 percent slopes	Lo-sk Typic Argixeroll	80%	sideslopes	40-60	Mixed Colluvium from Black Hawk Fm	MW-W	1.35	.08-.14	3.00	B	H	None	40-60
		Disturbed Soils	10%		40-60			N/A	N/A	N/A	N/A	N/A	N/A	N/A
		shallow to bedrock inclusion	10%		10 to 20									

[1] Percentage of components in map unit.
[2] Drainage: E=excessively drained ; W=well drained; MW=moderately well drained; P=poorly drained
[3] AWHC estimated with coarse fragment Reduction (UDOGM Guidelines, page 11)
[4] See explanation Table 7 , footnote 2
[5] Surface Runoff Class: L=low; M=moderate; H=high; VH=very high
[7] Soil Erosion Hazard: K<0.37 = Low (L); K = 0.37 = Moderate (M); K > 0.37 = High (H)
[8] VS= very shallow (0-10 inches); S=shallow (10-20 inches); MD=moderately deep (20-40 inches); D=deep (40-60 inches); VD=very deep (>60 inches)

Table 4

Kinney #2 Mine Order 2 Soil Survey - Soil Family Classification by Pedon Location

Pedon ID Number	Map Unit	Soil Classification
D-1	Disturbed Area Soils, 0-20 percent slopes	N/A Disturbed Land Soils
D-2	Disturbed Area Soils, 0-20 percent slopes	N/A Disturbed Land Soils
D-9A	Disturbed Area Soils, 0-20% percent slopes	N/A Disturbed Land Soils
D-9B	Disturbed Area Soils, 0-20 % percent slopes	N/A Disturbed Land Soils
D-10	Disturbed Area Soils, 0-20 % percent slopes	N/A Disturbed Land Soils
D-11	Disturbed Area Soils, 0-20% percent slopes	N/A Disturbed Land Soils
05-SP-07	Disturbed Area Soils, 0-20 percent slopes	N/A Disturbed Land Soils
06-SP-07	Disturbed Area Soils, 0-20 percent slopes	N/A Disturbed Land Soils
13-SP-07	Disturbed Area Soils, 0-20 percent slopes	N/A Disturbed Land Soils
D-3	Disturbed Area Soils, 20-50 percent slopes	N/A Disturbed Land Soils
D-4	Disturbed Area Soils, 20-50 percent slopes	N/A Disturbed Land Soils
D-5	Disturbed Area Soils, 20-50 percent slopes	N/A Disturbed Land Soils
D-6	Disturbed Area Soils, 20-50 percent slopes	N/A Disturbed Land Soils
D-7	Disturbed Area Soils, 20-50 percent slopes	N/A Disturbed Land Soils
D-12	1A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argicryoll
1A-1	1A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argicryoll
1B-1	1A Complex, 0 -35 percent slopes	Coarse-loamy, mixed, superactive, Typic Haplocryoll
1A-2	1A Complex, 0-35 percent slopes	Fine-loamy, mixed, superactive, Pachic Haplocryoll
10-SP-07	1A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argicryoll
D-8	1B Consociation, 35-70 % slopes	Coarse-loamy, mixed, superactive, Typic Haplocryoll
2A-1	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
2A-2	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
2A-3	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
2A-5	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
2A-6	2A Complex, 0-35 percent slopes	Fine-loamy, Mixed, superactive, Pachic Palexeroll
2A-7	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Haploxeroll
04-SP-07	2A Complex, 0-35 percent slopes	Loamy-skeletal,mixed, superactive, Typic Haplustoll
07-SP-07	2A Complex, 0-35 percent slopes	Loamy-sleletal, mixed superactive, Typic Haplustoll
08-SP-07	2A Complex, 0-35 percent slopes	Fine-loamy, mixed, superactive, Typic Argixeroll
11-SP-07	2A Complex, 0-35 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
09-SP-07	2A Complex, 0-35 percent slopes	Fine-loamy, mixed, superactive, Typic Argixeroll
12-SP-07	2A Complex, 0-35 percent slopes	Coarse-loamy, mixed, superactive, Typic Haplustoll
2B-1	2B Consociation, 35-70 percent slopes	Loamy-skeletal, mixed, superactive, Typic Argixeroll
01-SP-07	3A Consociation, 0-3 percent slopes	Coarse-loamy, mixed, superactive, Cumulic Endoaquoll
02-SP-07	3A Consociation, 0-3 percent slopes	Fine-loamy, mixed, superactive, Cumulic Haplocryoll
03-SP-07	3A Consociation, 0-3 percent slopes	Fine-loamy, mixed, superactive, Cumulic Haplocryol

Table 5

Kinney #2 Mine Order 2 Soil Survey - Surface Disturbance by Soil Map Unit

Map Unit ID	Map Unit Name	Disturbance Acres
DA	Disturbed Lands, 0-20 percent slopes	14.1
DB	Disturbed Lands, 20-50 percent slopes	6.1
1B	Typic Argicryoll Consociation, 35-70 percent slopes	0.8
2A	Typic Argixeroll - Typic Haploxeroll Complex, 0-35 percent slopes	4.5
2B	Typic Argixeroll Consociation, 35-70 percent slopes	1.6
3A	Cumulic Haplocryoll, fine-loamy, 0-3 percent slopes	0.1
	Total	**27.3**

Table 6
Kinney #2 Order 2 Soil Survey - Soil Suitability Data

Lab	Sample	pH (Sat Paste)	R[1]	E.C. @25°C	R[1]	SAR	R[1]	Sand	Silt	Clay	VFS	USDA Texture Class[2]	R[1]	Saturation Percent	R[1]	Available Water Capacity[5]	R[1]	Organic Matter	Organic Carbon (calculated)	R[1]	Erodibility Factor (K-Factor)[4]	R[1]	$CaCO_3$	R[1]	Boron	R[1]	Se (Hot H_2O sol)	R[1]	Cumulative Rating	Most Limiting Suitability Rating[1]	Average Suitability Rating[1]	Calcium, soluble (Sat. Paste)	Magnesium, soluble (Sat. Paste)	Sodium, soluble (Sat. Paste)	Potassium, soluble (Sat. Paste)	Nitrogen-Nitrate	Phospohorus	boron	selenium	total suffer	Acid-Base Potential
ID	ID	units		dS/m		unitless		%	%	%	%			%		in/in		%	%		unitless		%		mg/Kg		mg/Kg					meq/L	meq/L	meq/L	meq/L	mg/Kg	mg/Kg	meq/L	mg/kg	mg/kg	T Ca / 1KT overburden
L59731-01	D-1 0-6"	6.8	1	0.25	1	0.23	1	72.5	11.3	16.3	8.5	sl	1	34.6	1	0.04	3	2.4	1.4	1	0.1	1	2.3	1	*		*		11	3	1.22	1.57	0.12	0.22	0.32	1.1	28	*	*	*	*
L59731-02	D-1 6-16	6.4	2	0.22	1	0.11	1	70	15	15	12.2	sl	1	53.4	1	0.08	2	4	23.3	4	0.05	1	1.2	1	*		*		14	4	1.55	1.28	0.15	0.1	0.07	1.1	36	*	*	*	*
L59731-03	D-1 6-25"	6.7	1	0.18	1	0.08	1	78.3	7.5	16.3	8.1	sl	1	35.8	1	0.09	2	1.2	0.7	1	0.1	1	3.4	1	*		*		10	2	1.11	0.82	0.14	0.06	0.1	1.6	14	*	*	*	*
L59731-04	D-1 25-40"	7	1	0.16	1	0.11	1	73.8	12.5	13.8	11.4	sl	1	34.6	1	0.09	2	1.5	0.9	1	0.1	1	0.2	1	*		*		10	2	1.11	0.76	0.15	0.08	0.08	0.9	29	*	*	*	*
L59731-05	D-1 40-65"	8.5	1	0.21	1	0.11	1	80	7.5	12.5	8.5	sl	1	30.2	1	0.06	3	1	0.6	1	0.1	1	0.2	1	*		*		11	3	1.22	1.04	0.22	0.09	0.08	U	20	*	*	*	*
L59731-06	D-1 65-90"	7.2	1	0.26	1	0.15	1	83.8	3.8	12.5	31.8	sl	1	31.1	1	0.07	3	0.9	0.5	1	0.05	1	0.5	1	*		*		11	3	1.22	1.36	0.24	0.14	0.05	U	20	*	*	*	*
L59731-07	D-2 0-6"	7.3	1	0.18	1	0.08	1	77.5	7.5	15	6.9	sl	1	33.5	1	0.12	1	1.9	1.1	1	0.02	1	0.6	1	*		*		9	1	1	0.8	0.16	0.06	0.11	0.2	15	*	*	*	*
L59731-08	D-2 6-24"	7.5	1	0.5	1	0.05	1	78.8	7.5	13.8	1.9	sl	1	33.3	1	0.11	1	0.5	0.3	1	0.02	1	0.4	1	*		*		9	1	1	0.16	0.13	0.02	0.08	U	13	*	*	*	*
L59731-09	D-3 0-10"	7.6	1	0.27	1	0.08	1	72.5	8.8	18.8	7.6	sl	1	40.7	1	0.08	2	4	2.3	1	0.15	1	1.4	1	0.57	1	U	1	11	2	1	1.2	0.21	0.07	0.33	1.5	20	0.57	U	0.02	15
L59731-10	D-3 10-20"	7.4	1	0.27	1	0.09	1	71.3	11.3	17.5	7.4	sl	1	35.3	1	0.07	2	2.9	1.7	1	0.1	1	1.5	1	0.66	1	U	1	11	2	1	1.52	0.24	0.09	0.18	0.9	20	0.66	U	0.02	10
L59731-11	D-3 20-40"	6.9	1	0.17	1	0.09	1	72.5	8.8	18.8	8.9	sl	1	37	1	0.07	2	2.7	1.6	1	0.1	1		1	0.85	1	U	1	11	2	1	0.68	0.14	0.06	0.07	0.4	16	0.65	U	0.02	18
L59731-12	D-3 40-60 "	6.3	2	0.25	1	0.08	1	72.5	10	17.5	6.9	sl	1	38.9	1	0.05	2	3.1	1.8	1	0.05	1	1.8	1	0.48	1	U	1	12	2	1.09	1.13	0.26	0.07	0.06	0.2	17	0.48	U	0.03	14
L59731-13	D-3 60-75"	6.3	2	0.16	1	0.05	1	72.5	10	17.5	7.4	sl	1	37.9	1	0.04	3	3.2	1.9	1	0.05	1	1.8	1	1.11	1	U	1	13	3	1.16	13.4	5.67	0.17	0.16	0.4	15	1.11	U	0.13	19
L59731-14	D-3 coal	6.6	1	0.16	1		1	71.3	13.8	15	1.9	sl	1	59.2	2	0.11	1	5.2	30.1	4	0.05	1	3.3	1	2.3	1	U	1	13	4	1.18	15.3	3.06	0.07	0.13	1	5	2.3	U	0.46	19
L59731-15	D-4 0-8"	6.6	1	0.2	1	0.07	1	71.3	11.3	17.5	9.1	sl	1	40.2	1	0.07	2	2.4	1.4	1	0.15	1	1.2	1	*		*		10	2	1.11	0.82	0.13	0.05	0.07	1.3	22	*	*	*	*
L59731-16	D-4 8-16"	6.7	1	0.14	1	0.05	1	68.8	12.5	18.8	9.2	sl	1	39.2	1	0.07	2	5.5	1.3	1	0.15	1	0.9	1	*		*		10	2	1.11	0.47	0.12	0.03	0.06	0.3	21	2.25	U	0.39	23
L59731-17	D-4 19-72 coal	7.5	1	6.2	1		1	77.5	6.3	16.3	2.4	sl	1	61.6	2	0.08	2	2.2	3.2	1	0.15	1	2.3	1	2.25	1	U	1	13	2	1.18	16.9	8.58	0.08	0.13	1.1	4	*	*	*	*
L59731-18	D-5 0-6	7.7	1	0.26	1	0.07	1	65	13.8	21.3	6.2	scl	2	45.9	1	0.07	2	2.6	1.5	1	0.05	1	2.3	1	*		*		11	2	1.22	1.17	0.24	0.06	0.09	0.5	24	*	*	*	*
L59731-19	D-5 6-20"	7.6	1	0.18	1	0.07	1	65	13.8	21.3	6.9	scl	2	47	1	0.02	3	2.4	1.4	1	0.02	1	2.6	1	*		*		12	2	1.09	0.81	0.15	0.05	0.06	0.5	24	*	*	*	*
L59731-20	D-5 20-40"	7	1	0.12	1	0.08	1	63.8	15	21.3	5.8	scl	2	52.2	1	0.02	3	1.7	1	1	0.05	1	2.7	1	*		*		13	3	1.44	0.34	0.1	0.04	0.08	0.9	20	*	*	*	*
L59732-01	D-5 40-60"	6.9	1	0.26	1	0.33	1	37.5	41.3	21.3	13.1	sil	1	52.3	1	0.02	3	2.7	1.6	1	0.28	1	3.3	1	*		*		11	3	1.22	1.33	0.31	0.3	0.08	7.9	18	*	*	*	*
L59732-02	D-6 0-7"	6.9	1	0.28	1	0.11	1	30	47.5	22.5	12.3	sil	1	52.1	1	0.11	1	2.7	1.6	1	0.2	1	3.7	1	*		*		9	1	1	2.48	0.38	0.14	0.45	9	15	*	*	*	*
L59732-03	D-6 24-48	7	1	0.45	1	0.21	1	40	40	20	11.3	sil	1	54.4	1	0.03	3	2.2	1.3	1	0.17	1	3.2	1	*		*		11	3	1.22	3.21	0.76	0.3	0.09	3.3	12	*	*	*	*
L59732-04	D-6 48-72	6.7	1	0.45	1	0.2	1	37.5	42.5	20	8.9	sil	1	51	1	0.13	1	2.4	1.4	1	0.28	1	3.3	1	*		*		9	1	0.81	2.96	0.69	0.28	0.09	2.3	10	*	*	*	*
L59732-05	D-7 0-8"	6.7	1	0.69	1	0.09	1	30	50	20	9.7	sil	1	49.8	1	0.01	3	2.7	1.5	1	0.2	1	2.7	1	*		*		11	3	1.22	4.92	0.72	0.16	0.67	1.9	7	*	*	*	*
L59732-06	D-7 6-20"	7.2	1	0.46	1	0.12	1	30	47.5	22.5	7.1	sil	1	47.3	1	0.01	3	1.9	1.1	1	0.24	1	3.3	1	*		*		11	3	1.22	2.98	0.56	0.17	0.15	0.4	10	*	*	*	*
L59732-07	D-7 20-42"	6.8	1	0.2	1	0.12	1	32.5	46.3	21.3	8.5	sil	1	43.3	1	0.02	3	1.5	0.9	1	0.17	1	3.3	1	*		*		11	3	1.22	0.93	0.32	0.1	0.13	0.5	8	*	*	*	*
L59732-08	D-7 42-58"	6.8	1	0.3	1	0.22	1	32.5	45	22.5	9.1	sicl	2	54.3	1	0.06	2	2.1	1.2	1	0.1	1	2.8	1	*		*		11	2	1.22	1.63	0.42	0.23	0.09	U	8	*	*	*	*
L59732-09	D-7 58-70	7	1	0.48	1	0.13	1	62.5	25	12.5	23.6	loam	1	38.3	1	0.12	1	1.4	0.8	1	0.17	1	0.8	1	*		*		9	1	1	3.35	0.63	0.2	0.11	U	16	*	*	*	*
L59732-10	D-8 0-6"	7	1	0.59	1	0.08	1	52.5	38.8	8.8	20.3	loam	1	64.6	2	0.14	1	4.3	2.5	1	0.32	1	1.2	1	*		*		10	2	1.11	3.91	0.79	0.13	1.11	2.1	25	*	*	*	*
L59732-11	D-8 6-13	7	1	0.26	1	0.14	1	55	35	10	21.1	loam	1	41.5	1	0.14	1	1.9	1.1	1	0.2	1	0.8	1	*		*		9	1	1	1.13	0.28	0.12	0.42	1.7	20	*	*	*	*
L59732-12	D-8 13-20	7	1	0.16	1	0.17	1	55	32.5	12.5	24.2	loam	1	38.8	1	0.09	2	0.7	0.4	1	0.15	1	0.6	1	*		*		10	2	1.11	0.56	0.23	0.11	0.24	0.8	20	*	*	*	*
L59732-13	D-8 20-48	7.2	1	0.18	1	0.17	1	53.8	30	16.3	23.9	loam	1	38	1	0.08	2	0.5	0.3	1	0.1	1	0.6	1	*		*		10	2	1.11	0.6	0.3	0.12	0.22	U	17	*	*	*	*
L59732-14	D-9A 0-6"	7	1	0.45	1	0.09	1	47.5	36.3	16.3	14.4	loam	1	51.6	1	0.1	2	3.4	2	1	0.2	1	2	1	*		*		10	2	1.11	3.48	0.39	0.13	0.2	1	11	*	*	*	*
L59732-15	D-9A 6-12	7.9	1	0.47	1	0.08	1	50	32.5	17.5	15.4	loam	1	47.6	1	0.09	2	3.8	2.2	1	0.1	1	1.9	1	*		*		10	2	1.11	3.25	0.54	0.12	0.09	U	11	*	*	*	*
L59732-16	D-9A 12-30	7.9	1	0.27	1	0.1	1	68.8	18.8	12.5	5.6	sl	1	37.5	1	0.12	1	51	29.6	4	0.15	1	4.2	1	2.31	1	U	1	13	4	1.18	1.33	0.28	0.09	0.1	0.7	3	2.16	U	0.62	27
L59732-17	D9A 30-68	7	1	2.11	1	0.03	1	57.5	25	17.5	2.8	sl	1	55.2	2	0.17	1	35	24.4	4	0.24	1	5.4	1	2.16	1	U	1	14	4	1.27	20.9	11	0.12	0.16	0.8	2	0.91	U	0.06	35
L59732-18	D-9A 80-95	6.7	1	0.35	1	0.07	1	53.8	31.3	15	13.9	loam	1	49	1	0.14	1	7.4	4.3	1	0.24	1	1.7	1	0.91	1	U	1	10	1	0.9	2.34	0.29	0.09	0.15	0.6	9	0.86	U	0.04	15
L59732-20	D-9A 95-115"	6.6	1	0.25	1	0.24	1	55	30	15	15.5	loam	1	51	1	0.13	1	4.1	2.4	1	0.24	1	1.3	1	0.86	1	U	1	10	1	0.9	1.35	0.29	0.22	0.05	1.3	11	0.46	U	0.02	12
L59733-01	D9A 115-145	6.8	1	1.25	1	0.1	1	50	27.5	22.5	18.9	loam	1	42.5	1	0.13	1	0.5	0.3	1	0.17	1	0.5	1	0.57	1	U	1	10	1	0.9	12.7	2.67	0.3	0.35	3.6	13	0.57	U	0.02	5
L59733-02	D-9B 0-6	6.7	1	0.43	1	0.18	1	35	40	25	15	sil	1	41.5	1	0.12	1	2.9	1.7	1	0.32	1	2.4	1	0.46	1	U	1	10	1	0.9	2.76	0.39	0.23	0.32	2.9	20	0.46	U	0.03	24
L59732-03	D-9B 6-12	7.1	1	0.37	1	0.17	1	51.3	31.3	17.5	19.4	loam	1	34.9	1	0.11	1	4.1	2.4	1	0.17	1	2.2	1	0.49	1	U	1	10	1	0.9	2.47	0.39	0.21	0.12	0.9	31	0.49	U	0.52	22
L59733-04	D-9B 12-30	7.6	1	1.61	1	0.07	1	50	26.3	23.8	3.7	loam	1	50.3	1	0.17	1	40	23.1	4	0.17	1	5.1	1	2.27	1	0.007	1	14	4	1.27	18.5	3.87	0.25	0.17	1.5	3	2.27	0.007	1.13	35
L59733-05	D-9B 30-52"	6.7	1	1.77	1	0.04	1	93.8	3.8	2.5	2.9	sand	3	59	2	0.06	2	93	54	4	0.1	1	4.6	1	1.41	1	U	1	17	4	1.54	25.1	1.48	0.16	0.06	1.2	1	1.41	U	0.05	11
L59733-06	D-9B 52-80	7.9	1	1.85	1	0.05	1	60	26.3	13.8	21.5	loam	1	38	1	0.12	1	2.4	1.4	1	0.2	1	0.7	1	1.73	1	U	1	10	1	0.91	20.1	6.54	0.21	0.42	0.4	11	1.73	U	0.03	5
L59733-07	D-9B 80-102	7.5	1	1.73	1	0.06	1	53.8	31.3	15	20.3	loam	1	37.9	1	0.11	1	1.5	0.9	1	0.17	1	0.6	1	0.86	1	U	1	10	1	0.91	19.4	6.62	0.24	0.58	0.4	11	0.86	U	0.01	6
L59733-08	D-10 0-5"	7.3	1	0.53	1	0.16	1	47.5	37.5	15	31.8	loam	1	50.7	1	0.15	1	5.7	3.3	1	0.32	1			*		*		9	1	1	3.23	0.67	0.23	1.11	1.6	21	*	*	*	*
L59733-09	D-10 5-11	7.3	1	0.28	1	0.4	1	33.8	41.3	25	8.9	sil	1	48.3	1	0.18	1	5.3	3.1	1	0.43	4	1.7	1	*		*		12	4	1.33	1.34	0.28	0.36	0.15	1.5	13	*	*	*	*
L59733-10	D-10 11-23	7.1	1	0.22	1	0.49	1	26.3	35	38.8	3	sicl	2	61.7	2	0.16	1	1.4	0.8	1	0.32	1	0.7	1	*		*		11	2	1.22	0.82	0.28	0.36	0.09	0.9	7	*	*	*	*
L59733-11	D-10 23-35	7.3	1	0.25	1	0.43	1	22.5	35	42.5	2	sic	3	69.6	2	0.17	1	1.2	0.7	1	0.28	1	1	1	*		*		12	3	1.33	0.81	0.39	0.34	0.19	2	8	*	*	*	*
L59733-12	D-11 0-12	7.3	1	0.42	1	0.2	1	42.5	32.5	25	11.7	loam	1	40.8	1	0.1	2	2.8	1.6	1	0.2	1	3.1	1	*		*		10	2	1.11	2.98	0.35	0.26	0.22	1.8	15	*	*	*	*
L59733-13	D-11 12-48	7.4	1	1.63	1	0.06	1	62.5	20	17.5	6.9	sl	1	53.2	1	0.12	1	43	25	4	0.1	1	3.5	1	1.41	1	U		13	4	1.18	20.5	2.88	0.23	0.11	0.7	2	1.41	U	0.039	23
L59733-14	D-11 62-82	7.3	1	1.33	1	0.08	1	51.3	30	18.8	6.3	loam	1	44.8	1	0.02	3	6.2	3.8	1	0.05	1	5.3	1	*		*		11	3	1.22	12.8	4.28	0.28	0.16	0.6	9	*	*	*	*
L59733-15	D-12 0-6"	7.3	1	0.42	1	0.18	1	50	37.5	12.5	23.4	loam	1	55.9	2	0.16	1	5.5	3.2	1	0.32	1	0.7	1	*		*		10	2	1.11	2.11	0.62	0.21	1.06	2.6	22	*	*	*	*
L59733-16	D-12 6-14	7.6	1	0.27	1	0.3	1	52.5	33.8	13.8	22.7	loam	1	42.7	1	0.15	1	1.7	1	1	0.24	1	0.7	1	*		*		9	1	1	1.23	0.41	0.28	0.38	2	18	*	*	*	*
L59733-17	D-12 14-28	7.1	1	0.21	1	0.35	1	51.3	36.3	12.5	18.8	loam	1	36.5	1	0.12	1	1.2	0.7	1	0.17	1	0.5	1	*		*		9	1	1	0.82	0.31	0.27	0.2	1.9	13	*	*	*	*
L59733-18	D-12 28-48	7.6	1	0.25	1	0.32	1	53.8	27.5	18.8	17.2	loam	1	36.4	1	0.03	3	0.7	0.4	1	0.1	1	0.6	1	*		*		11	3	1.22	1.15	0.36	0.28	0.16	1.8	11	*	*	*	*
L59733-19	D-12 48-66	6.8	1	0.3	1	0.27	1	56.3	25	18.8	23.6	loam	1	38	1	0.03	3	0.3	0.2	1	0.05	1	2.6	1	*		*		11	3	1.22	1.63	0.33	0.27	0.09	1.9	11	*	*	*	*
L59733-20	2A-1 0-10"	7	1	0.31	1	0.19	1	57.5	30	12.5	24.3	loam	1	46.8	1	0.15	1	2	1.2	1	0.32	1	0.5	1	*		*		9	1	1	1.59	0.45	0.2	0.52	4.4	14	*	*	*	*
L59734-01	2A-1 10-24	7.1	1	0.29	1	0.37	1	50	30	20	15.5	loam	1	34.6	1	0.09	2	0.7	0.4	1	0.17	1	0.5	1	*		*		10	2	1.11	1.33	0.51	0.36	0.34	7.4	39	*	*	*	*
L59734-02	2A-1 24-44	7.7	1	0.19	1	0.2	1	35	37.5	27.5	14.1	cl	2	44.3	1	0.08	2	0.7	0.4	1	0.17	1	8.1	1	*		*		11	2	1.22	1.26	0.25	0.16	0.06	34	17	*	*	*	*
L59734-03	2A-1 44-65	6.8	1	0.24	1	0.39	1	42.5	31.3	26.3	12.2	loam	1	40.6	1	0.04	3	0.3	0.2	1	0.1	1	12.2	1	*		*		11	2	1.22	1.37	0.29	0.36	0.08	7.6	8	*	*	*	*
L59734-04	2A-1 65-80	7.3	1	0.24	1	0.41	1	55	25	20	13.5	loam	1	34.3	1	0.03	3	0.3	0.2	1	0.05	1	14.8	1	*		*		11	3	1.22	1.51	0.34	0.4	0.08	6.4	9	*	*	*	*
L59734-05	2A-2 0-5"	7.3	1	0.31	1	0.33	1	47.5	36.3	16.3	19.6	loam	1	44.3	1	0.14	1	1.4	0.8	1	0.32	1	0.8	1	*		*		9	1	1	1.47	0.46	0.33	0.49	5.2	17	*	*	*	*
L59734-06	2A-2 5-14	7.3	1	0.32	1	0.33	1	48.8	36.3	15	21.9	loam	1	45.2	1	0.13	1	2.4	1.4	1	0.24	1	0.6	1	*		*		9	1	1	1.49	0.44	0.33	0.91	7	27	*	*	*	*
L59734-07	2A-2 14-25	7.6	1	0.16	1	0.43	1	35	46.3	18.8	13.1	sil	1	32.3	1	0.11	1	0.9	0.5	1	0.24	1	0.5	1	*		*		9	1	1	0.65	0.23	0.29	0.2	47	17	*	*	*	*
L59734-08	2A-2 25-38	7.5	1	0.12	1	0.37	1	37.5	36.3	26.3	15.6	sil	1	37.8	1	0.09	2	0.3	0.2	1	0.24	1	0.7	1	*		*		10	2	1.11	0.47	0.23	0.22	0.12	41.8	10	*	*	*	*
L59734-09	2A-3 0-9"	7.6	1	0.2	1	0.23	1	56.3	32.5	11.3	27.1	loam	1	45.5	1	0.13	1	2.9	1.7	1	0.32	1	0.6	1	*		*		9	1	1	0.9	0.28	0.18	0.54	9.7	14	*	*	*	*
L59734-10	2A-3 9-19	7.8	1	0.14	1	0.33	1	45	33.8	21.3	9	loam	1	33.6	1	0.1	2	1.2	0.7	1	0.17	1	0.5	1	*		*		10	2	1.11	0.47	0.23	0.2	0.21	5.1	9	*	*	*	*
L59734-11	2A-3 19-36	7.4	1	0.14	1	0.41	1	47.5	30	22.5	18	loam	1	32	1	0.07	2	0.9	0.5	1	0.15	1	0.5	1	*		*		10	2	1.11	0.54	0.19	0.25	0.11	4.1	9	*	*	*	*
L59734-12	2A-3 36-52	7.6	1	0.19	1	0.33	1	31.3	40	28.8	19.4	sil	1	42.6	1	0.04	3	0.9	0.5	1	0.15	1	0.8	1	*		*		11	3	1.22	1.08	0.31	0.28	0.07	11.1	33	*	*	*	*
L59734-13	2A-5 0-6"	7.3	1	0.36	1	0.38	1	46.3	37.5	16.3	19.3	loam	1	44.7	1	0.08	2	3.1	1.8	1	0.2	1	0.8	1	*		*		10	2	1.11	1.87	0.52	0.42	0.68	11.4	25	*	*	*	*
L59734-14	2A-5 6-12	7.8	1	0.38	1	0.33	1	46.3	32.5	21.3	12.6	loam	1	39.6	1	0.05	2	2.4	1.4	1	0.1	1	0.7	1	*		*		10	2	1.11	2.15	0.42	0.36	0.54	6.5	14	*	*	*	*
L59734-15	2A-5 12-24	7.8	1	0.11	1	0.38	1	28.8	40	31.3	7.2	sicl	2	39.2	1	0.09	2	0.9	0.5	1	0.17	1	0.5	1	*		*		11	2	1.22	0.37	0.24	0.21	0.26	4.2	7	*	*	*	*
L59734-16	2A-5 24-48	7.6	1	0.09	1	0.42	1	22.5	37.5	40	4.8	sicl/sic	3	47.3	1	0.08	2	0.7	0.4	1	0.18	1	0.7	1	*		*		12	3	1.33	0.24	0.31	0.22	0.25	7	8	*	*	*	*
L59734-17	2A-6 0-6"	7.7	1	0.23	1	0.16	1	47.5	37.5	15	18	loam	1	40.9	1	0.17	1	0.6	1.2	1	0.32	1	0.7	1	*		*		9	1	1	1.14	0.43	0.15	0.75	7.2	24	*	*	*	*
L59734-18	2A-6 6-12	7.8	1	0.19	1	0.21	1	50	33.8	16.3	24.3	loam	1	38.8	1	0.24	1	2.4	1.3	1	0.24	1	0.7	1	*		*		9	1	1	0.84	0.31	0.16	0.52	5.3	22	*	*	*	*
L59734-19	2A-6 12-24	7.5	1	0.18	1	0.43	1	45	38.8	16.3	15.5	loam	1	39.2	1	0.15	1	1.7	1	1	0.24	1	0.7	1	*		*		9	1	1	0.96	0.31	0.35	0.1	3.5	19	*	*	*	*
L59734-20	2A-6 24-40	7.5	1	0.22	1	0.42	1	45	38.8	16.3	14.8	loam	1	42.8	1	0.15	1	1.7	1	1	0.24	1	0.7	1	*		*		9	1	1	1.27	0.44	0.39	0.24	6.1	23	*	*	*	*
L59735-01	2A-6 40-60	7.4	1	0.51	1	1.39	1	50	25	25	13.6	loam	1	31.6	1	0.14	1	0.9	0.5	1	0.24	1	1.4	1	*		*		9	1	1	1.54	0.73	1.48	0.39	3.9	31	*	*	*	*
L59735-02	2A-6 60-80	7.2	1	0.35	1	1.09	1	47.5	27.5	25	19.2	loam	1	32.9	1	0.11	1	0.7	0.4	1	0.17	1	1	1	*		*		9	1	1	0.99	0.84	0.88	0.29	3.6	28	*	*	*	*
L59735-03	2A-7 0-7"	7.8	1	0.35	1	0.55	1	55	25	20	20.4	loam	1	47.8	1	0.11	1	2	1.2	1	0.2	1	0.6	1	*		*		9	1	1	1.24	0.45	0.51	0.74	4.6	17	*	*	*	*
L59735-04	2A-7 7-20	7.6	1	0.4	1	0.43	1	51.3	26.3	22.5	21.2	loam	1	37.4	1	0.1	2	1	0.6	1	0.17	1	0.5	1	*		*		10	2	1.11	1.45	0.49	0.43	0.6	3.8	17	*	*	*	*
L59735-05	2A-7 20-38	7.2	1	0.28	1	0.43	1	50	26.3	23.8	22.6	loam	1	34.2	1	0.05	2	1	0.3	1	0.1	1	0.5	1	*		*		10	2	1.11	1.06	0.41	0.37	0.3	1.9	14	*	*	*	*
L59735-06	2B-1 0-9"	7.5	1	0.3	1	0.18	1	58.8	21.3	20	9.6	l	1	49.7	1	0.16	1	2.2	1.3	1	0.2	1	0.6	1	*		*		9	1	1	1.11	0.42	0.16	0.75	7.9	17	*	*	*	*
L59735-07	2B-1 9-19	7	1	0.15	1	0.37	1	31.3	35	33.8	8.5	sicl	2	41	1	0.15	1	0.9	0.5	1	0.17	1	0.9	1	*		*		10	2	1.11	0.67	0.22	0.25	0.11	3.2	5	*	*	*	*
L59735-08	2B-1 19-33	7	1	0.29	1	0.44	1	16.3	40	43.8	15.7	sicl	2	51.8	1	0.11	1	0.9	0.5	1	0.1	1	1	1	*		*		10	2	1.11	1.42	0.35	0.42	0.06	4.2	6	*	*	*	*
L59735-09	2B-1 33-51	7.3	1	0.42	1	0.24	1	30	36.3	33.8	8.7	sicl	2	43.4	1	0.02	3	0.5	0.3	1	0.1	1	6.1	1	*		*		12	3	1.33	2.52	0.58	0.31	0.06	4.4	3	*	*	*	*
L59735-10	1A-1 0-6"	7.1	1	0.64	1	0.07	1	36.3	43.8	20	20.6	sil	1	59.2	2	0.16	1	4.5	2.6	1	0.43	4	0.8	1	*		*		13	4	1.44	3.15	0.78	0.11	1.19	6.4	32	*	*	*	*
L59735-11	1A-1 6-17	7.5	1	0.25	1	0.11	1	36.3	45	18.8	18.2	sil	1	45.8	1	0.13	1	1	0.6	1	0.24	1	0.3	1	*		*		9	1	1	1.11	0.36	0.1	0.36	4.2	27	*	*	*	*
L59735-12	1A-1 17-28	7.1	1	0.16	1	0.15	1	40	37.5	22.5	20.7	l	1	39.5	1	0.09	2	0.7	0.4	1	0.17	1	0.3	1	*		*		10	2	1.11	0.55	0.27	0.1	0.25	3.9	19	*	*	*	*
L59725-13	1A-1 28-60	7.5	1	0.22	1	0.51	1	36.3	35	28.8	19.1	cl	2	40.9	1	0.06	2	0.3	0.2	1	0.1	1	0.5	1	*		*		11	2	1.22	0.89	0.24	0.39	0.07	4.5	25	*	*	*	*
L59735-14	1A-1 60-100	7.1	1	0.27	1	0.76	1	43.8	30	26.3	18.5	l	1	42.2	1	0.05	2	0.3	0.2	1	0.1	1	0.6	1	*		*		10	2	1.11	0.98	0.23	0.59	0.07	3.1	22	*	*	*	*
L59735-15	1A-2 15-25	7.7	1	0.48	1	0.17	1	48.8	32.5	18.8	18.2	l	1	47.3	1	0.14	1	3.4	2	1	0.24	1	1	1	*		*		10	2	1.11	3.73	0.25	0.24	0.19	4.1	10	*	*	*	*
L59735-16	1A-2 25-40	7.8	1	0.82	1	0.14	1	45	38.8	16.3	18.1	l	1	47.7	1	0.15	1	2.4	1.3	1	0.24	1	0.8	1	*		*		8	1	1	4.3	0.38	0.22	0.14	4.6	23	*	*	*	*
L59735-17	1A-2 40-60	7.7	1	0.76	1	0.15	1	42.5	38.8	18.8	19.1	l	1	44.3	1	0.15	1	1.5	0.9	1	0.24	1	0.6	1	*		*		9	1	1	5.92	0.79	0.29	0.32	4	33	*	*	*	*
L59735-18	1A-2 60-75	7.4	1	0.45	1	0.16	1	48.3	35	18.8	16.1	l	1	40.9	1	0.12	1	1.7	1	1	0.17	1	0.8	1	*		*		9	1	1	3.26	0.35	0.22	0.15	3.5	34	*	*	*	*
L59735-19	1A-2 75-90	7.1	1	1.25	1	0.13	1	43.8	38.8	17.5	16.3	l	1	55.8	1	0.09	2	1.5	0.9	1	0.17	1	0.8	1	*		*		10	2	1.11	11.4	1.19	0.33	0.62	2.9	56	*	*	*	*
L59735-20	1B-1 0-7	7.1	1	0.68	1	0.11	1	41.3	42.5	16.3	18.4	l/sil	1	64.4	2	0.15	1	5.3	3.1	1	0.43	4	0.9	1	*		*		13	4	1.44	3.71	1.06	0.17	1.69	5	47	*	*	*	*
L59736-01	1B-1 7-15	7	1	0.48	1	0.57	1	42.5	40	17.5	16.6	l	1	130	4	0.15	1	1.4	0.8	1	0.24	1	0.6	1	*		*		12	4	1.33	1.81	0.46	0.61	0.82	4.1	34	*	*	*	*
L59736-02	1B-1 15-28	7.4	1	0.33	1	1.25	1	42.5	45	12.5	17.6	sil	1	66.7	3	0.11	1	0.7	0.4	1	0.24	1	0.4	1	*		*		11	3	1.22	0.71	0.21	0.85	0.38	4.4	25	*	*	*	*
L59736-03	1B-1 28-60	7	1	0.29	1	0.89	1	57.5	30	12.5	18.3	l	1	29.9	1	0.02	3	0.2	0.1	1	0.05	1	0.3	1	*		*		11	3	1.33	0.68	0.21	0.6	0.23	4.1	18	*	*	*	*

[1] R – Soil Suitability Rating (see Table 2)
Good = 1, Fair = 2, Poor = 3 Unsuitable = 4
[2] See explanation of abbreviation in footnotes on Table 2
[3] See pedon de riptions in Appendix 2
[4] See K-factor, assumptions, calculations and input parameters in Table 7
[5] Ley, et al. Field Evaluation and Comparison of Techniques for Measuring Soil Water, Table 1
* Not analzed/data not available
U - tested below ACZ Lab detection limits

Table 7 **Kinney #2 Mine Order 2 Soil Survey - Erodibility Factor Calculations and Input Parameters**

Lab ID	Sample ID	Sand	Silt	Clay	very fine sand	Organic Matter	Structure	Permeability	Fine Earth Fraction Soil Erodibility Factor	Whole Soil (includes coarse fragments) Erodibility Factor
		2.0 - 0.1 mm	0.1 - 0.002 mm	< 0.002 mm	%	(%)*	S[1]	P[2]	Kf[3]	Kw[3]
L59731-01	D-1 0-6"	73	11	34	8.5	2.4	1	2	0.24	0.05
L59731-02	D-1 6-16	70	15	15	12.2	4	2	2	0.2	0.05
L59731-03	D-1 6-25"	76	8	16	8.1	1.2	4	2	0.2	0.1
L59731-04	D-1 25-40"	85	13	14	11.4	1.5	4	2	0.2	0.1
L59731-05	D-1 40-65"	30	8	13	8.5	1	4	2	0.2	0.1
L59731-06	D-1 65-90"	31	4	13	31.8	0.9	4	2	0.15	0.05
L59731-07	D-2 0-6"	78	8	15	8.9	1.9	1	2	0.24	0.02
L59731-08	D-2 6-24"	79	8	14	1.9	0.5	2	2	0.2	0.02
L59731-09	D-3 0-10"	73	9	19	7.6	4	2	2	0.24	0.15
L59731-10	D-3 10-20"	71	11	18	7.4	2.9	4	2	0.2	0.1
L59731-11	D-3 20-40"	73	9	19	8.9	2.7	4	2	0.2	0.1
L59731-12	D-3 40-60 "	73	10	18	6.9	3.1	4	2	0.2	0.05
L59731-13	D-3 60-75"	73	10	18	7.4	3.2	4	2	0.2	0.05
L59731-14	D-3 coal	71	14	15	1.9	5.2	4	2	0.24	0.05
L59731-15	D-4 0-8 "	71	11	18	9.1	2.4	4	2	0.24	0.15
L59731-16	D-4 8-16"	69	13	19	9.2	5.5	4	2	0.24	0.15
L59731-17	D-4 19-72 coal	78	6	16	2.4	2.2	4	2	0.2	0.15
L59731-18	D-5 0-6	65	14	21	6.2	2.6	4	4	0.28	0.05
L59731-19	D-5 6-20"	65	14	21	6.9	2.4	4	4	0.24	0.02
L59731-20	D-5 20-40"	64	15	21	5.8	1.7	4	4	0.24	0.05
L59732-01	D-5 40-60"	38	41	21	13.1	2.7	4	4	0.28	0.28
L59732-02	D-6 0-7"	30	48	23	12.3	2.7	4	4	0.55	0.2
L59732-03	D-6 24-48	40	40	20	11.3	2.2	4	4	0.43	0.17
L59732-04	D-6 48-72	38	43	20	8.9	2.4	4	4	0.43	0.28
L59732-05	D-7 0-6"	30	50	20	9.7	2.7	4	3	0.55	0.2
L59732-06	D-7 6-20"	30	48	23	7.1	1.9	4	3	0.43	0.24
L59732-07	D-7 20-42"	33	46	21	8.5	1.5	4	3	0.43	0.17
L59732-08	D-7 42-58"	33	45	23	9.1	2.1	4	5	0.32	0.1
L59732-09	D-7 58-70	53	35	13	23.6	1.4	4	3	0.32	0.17
L59732-10	D-8 0-6"	53	39	9	20.3	4.3	2	3	0.37	0.32
L59732-11	D-8 6-13	55	35	10	21.1	1.9	2	3	0.32	0.2
L59732-12	D-8 13-20	55	33	13	24.2	0.7	4	3	0.32	0.15
L59732-13	D-8 20-48	54	30	16	23.9	0.5	4	3	0.32	0.1
L59732-14	D-9A 0-6"	48	36	16	14.4	3.4	4	3	0.37	0.2
L59732-15	D-9A 6-12	50	33	18	15.4	3.8	4	3	0.32	0.1
L59732-16	D-9A 12-30	69	19	13	5.6	51	4	2	0.2	0.15
L59732-17	D9A 30-68	58	25	18	2.6	35	4	3	0.32	0.24
L59732-18	D-9A 80-95	54	31	15	13.9	7.4	3	3	0.32	0.24
L59732-20	D-9A 95-115"	55	30	15	15.5	4.1	4	3	0.32	0.24
L59733-01	D9A 115-145	50	28	16	18.9	0.5	4	3	0.32	0.17
L59733-02	D-9B 0-6	35	40	25	15.0	2.9	4	3	0.55	0.32
L59732-03	D-9B 6-12	51	31	18	19.4	4.1	4	3	0.32	0.17
L59733-04	D-9B 12-30	50	26	24	3.7	40	4	1	0.1	0.17
L59733-05	D-9B 30-52"	94	4	3	2.9	93	4	2	0.15	0.1
L59733-06	D-9B 52-80	60	27	14	21.5	2.4	4	2	0.2	0.2
L59733-07	D-9B 80-102	54	31	15	20.3	1.5	4	3	0.32	0.17
L59733-08	D-10 0-5"	48	38	15	31.8	5.7	3	3	0.37	0.32
L59733-09	D-10 5-11	34	41	25	8.9	5.3	4	3	0.43	0.43
L59733-10	D-10 11-23	26	35	39	3.0	1.4	4	5	0.32	0.32
L59733-11	D-10 23-35	23	35	43	2.0	1.2	4	6	0.28	0.28
L59733-12	D-11 0-12	43	33	25	11.7	2.8	4	3	0.37	0.2
L59733-13	D-11 12-48	63	20	18	6.9	43	4	2	0.2	0.1
L59733-14	D-11 62-82	51	30	19	6.3	6.2	4	3	0.32	0.05
L59733-15	D-12 0-6"	50	36	13	23.4	5.5	2	3	0.37	0.32
L59733-16	D-12 6-14	53	34	14	22.7	1.7	2	3	0.32	0.24
L59733-17	D-12 14-28	51	36	13	18.8	1.2	4	3	0.32	0.17
L59733-18	D-12 28-48	54	28	19	17.2	0.7	4	3	0.32	0.1
L59733-19	D-12 48-66	56	25	19	23.6	0.3	4	3	0.32	0.05
L59733-20	2A-1 0-10"	58	30	13	24.3	2	2	3	0.37	0.32
L59734-01	2A-1 10-24	50	30	20	15.5	0.7	4	3	0.32	0.17
L59734-02	2A-1 24-44	35	38	28	14.1	0.7	4	4	0.32	0.17
L59734-03	2A-1 44-65	43	31	26	12.2	0.3	4	3	0.32	0.1
L59734-04	2A-1 65-80	55	25	20	13.5	0.3	4	3	0.32	0.05
L59734-05	2A-2 0-5"	48	36	16	19.6	1.4	2	3	0.37	0.32
L59734-06	2A-2 5-14	49	36	15	21.9	2.4	2	3	0.32	0.24
L59734-07	2A-2 14-25	35	46	19	13.1	0.9	4	3	0.43	0.24
L59734-08	2A-2 25-38	38	36	26	15.6	0.3	4	3	0.43	0.24
L59734-09	2A-3 0-9"	56	33	11	27.1	2.9	2	3	0.37	0.32

Table 7 **Kinney #2 Mine Order 2 Soil Survey - Erodibility Factor Calculations and Input Parameters**

L59734-10	**2A-3 9-19**	45	34	21	9.0	1.2	4	3	0.32	0.17
L59734-11	**2A-3 19-36**	48	30	23	18.0	0.9	4	3	0.32	0.15
L59734-12	**2A-3 36-52**	31	40	29	19.4	0.9	4	3	0.43	0.15
L59734-13	**2A-5 0-6"**	46	38	16	19.3	3.1	2	3	0.37	0.2
L59734-14	**2A-5 6-12**	46	33	21	12.6	2.4	4	3	0.32	0.1
L59734-15	**2A-5 12-24**	29	40	31	7.2	0.9	4	5	0.32	0.17
L59734-16	**2A-5 24-48**	23	38	40	4.8	0.7	4	6	0.28	0.18
L59734-17	**2A-6 0-6"**	48	39	15	18.0	0.6	2	3	0.37	0.32
L59734-18	**2A-6 6-12**	50	26	16	24.3	2.4	2	3	0.32	0.24
L59734-19	**2A-6 12-24**	45	39	16	15.5	1.7	4	3	0.32	0.24
L59734-20	**2A-6 24-40**	45	25	16	14.9	1.7	4	3	0.32	0.24
L59735-01	**2A-6 40-60**	50	28	25	13.6	0.9	4	3	0.32	0.24
L59735-02	**2A-6 60-80**	48	34	25	19.2	0.7	4	3	0.32	0.17
L59735-03	**2A-7 0-7"**	55	27	20	20.4	2	2	3	0.37	0.2
L59735-04	**2A-7 7-20**	51	21	23	21.2	1	4	3	0.32	0.17
L59735-05	**2A-7 20-38**	50	27	24	22.6	0.5	4	3	0.32	0.1
L59735-06	**2B-1 0-9"**	59	21	20	9.6	2.2	2	3	0.37	0.2
L59735-07	**2B-1 9-19**	31	35	34	8.5	0.9	4	5	0.32	0.17
L59735-08	**2B-1 19-33**	16	40	44	15.7	0.9	4	5	0.32	0.1
L59735-09	**2B-1 33-51**	30	36	34	8.7	0.5	4	5	0.32	0.1
L59735-10	**1A-1 0-6"**	36	44	20	20.6	4.5	2	3	0.55	0.43
L59735-11	**1A-1 6-17**	36	45	19	18.2	1	4	3	0.43	0.24
L59735-12	**1A-1 17-28**	40	38	23	20.7	0.7	4	3	0.32	0.17
L59725-13	**1A-1 28-60**	36	35	29	19.1	0.3	4	4	0.32	0.1
L59735-14	**1A-1 60-100**	44	30	27	18.5	0.3	4	3	0.32	0.1
L59735-15	**1A-2 15-25**	49	33	19	18.2	3.4	2	3	0.37	0.24
L59735-16	**1A-2 25-40**	45	39	17	18.1	2.4	4	3	0.32	0.24
L59735-17	**1A-2 40-60**	43	39	19	19.1	1.5	4	3	0.32	0.24
L59735-18	**1A-2 60-75**	46	35	19	16.1	1.7	4	3	0.32	0.17
L59735-19	**1A-2 75-90**	44	39	18	16.3	1.5	4	3	0.32	0.17
L59735-20	**1B-1 0-7**	41	43	16	16.4	5.3	3	3	0.55	0.43
L59736-01	**1B-1 7-15**	43	40	18	16.6	1.4	3	3	0.32	0.24
L59736-02	**1B-1 15-28**	43	45	13	17.6	0.7	4	3	0.43	0.24
L59736-03	**1B-1 28-60**	58	30	13	18.3	0.2	4	3	0.05	0.05

* Organic matter percentage calculated by multiplying Total Organic Carbon by 1.72

[1] Soil Structure Class

1 Very fine Granular
2 Fine granular
3 Coarse granular
4 Blocky, platy, or massive

Source: Soil Erodibility nomograph of Wischmeier et al. (1971) - Wischmeier, W.H. and Smith, D.D. (1978). Predicting rainfall erosion losses - A guide to conservative planning, Agriculture Handbook No. 537. U.S. Department of Agriculture, Washington, D.C.

[2] Permeability Class for Major Textural Class

Permeability Class	Texture	Hydrologic Soil Group
6 Very slow	Silty clay, clay	D
5 Slow	Silty clay loam, sandy cl	C-D
4 Slow to Moderate	Sandy clay loam, clay lo	C-D
3 Moderate	Loam, silt loam	B
2 Moderate to Rapid	Loamy sand, sandy loan	A
1 Rapid	Sand	A+

Source: Rawls et al. (1982) - Rawls, W.J., Brakensiek, D.L., and Saxton, K.E. (1982). Estimation of Soil Water Properties Trans. Am. Soc. Agric. Eng. 25(5): 1316-1320.

[3] Erodibility Factor (Kw and Kf) calculated based on Section 618.45, pgs. 618-30 to 618-32, National Soil Suvrey Handbook. 1993. Soil Conservation Science. Handbook Number 430. U.S. Government Printing Office, Washington, D.C.

Table 8
Kinney #2 Mine Order 2 Soil Survey - Summary of Soil Limitations, Salvage Depths, and Salvageable Volumes

Map Unit	Map Unit	Map Unit	% of Map Unit[1]	Map Unit Area in Proposed Disturbance	Soil Depth Class	Primary Limitations	Range in Depth of Salvageable Primary Plant Growth Medium[2]	Average Depth of Salvageable Primary Plant Growth Medium[2]	Estimated Volume of Salvageable Primary Plant Growth Medium within the Proposed Disturbance
ID #	Name	Component		Acres	Inches		Inches	Inches	Cubic Yards
DA	Disturbed Lands, 0-20 percent slopes	Disturbed Soil	90%	12.70	40-60 plus	available water capacity, coal fines, Total Organic Carbon %	6 to 24	15	25,611.8
		Lo-sk Typic Haploxeroll	10%	1.40		high rock fragment content, availble water capacity	6 to 20	13	2,446.9
DB	Disturbed Lands, 20-50 percent slopes	Disturbed Soils	80%	4.89	60 plus	high rock fragments, coal fines, Total Organic Carbon%	6 to 20	13	8,546.7
		Lo-sk Typic Haploxeroll	10%	0.61		high rock fragment content, steep slopes	7 to 28	17	1,394.2
		Fi-lo Typic Argixeroll	10%	0.61			25-40	30	2,460.3
1B	Coarse-loamy Typic Argicryoll Consociation, 35-70 percent slopes	Co-lo Typic Haplocryoll	80%	0.48	60 plus		20-48	34	2,194.1
		Disturbed Soils*	10%	0.16	40-60	high clay content, K factor, steep slopes	5 to 11	8	172.1
		Lo-sk Typic Argicryoll	10%	0.16	40-60	high rock fragment content, K Factor	14-28	21	451.7
2A	Typic Argixeroll - Typic Haploxeroll Complex, 0-35 percent slopes	Lo-sk Typic Argixeroll	50%	2.27	20-60	high rock content, avaiable water capacity	20-60	40	12,207.6
		Lo-sk Typic Haploxeroll	35%	1.58			20-38	29	6,160.3
		Inclusions	15%	0.67	60 plus		24-60	37	3,332.9
2B	Typic Argixeroll Consociation, 35-70 percent slopes	Lo-sk Typic Argixeroll	80%	1.30	40-60	high clay content, K factor, steep slopes	9 to 19	14	2,446.9
		Disturbed Soils*	10%	0.16	40-60	coal fines, Total Carbon	6 to 20	13	279.6
		shallow to bedrock inclusion*	10%	0.16	10 to 20	bedrock less than 20 inches	0-15	7	150.6
3A	Cumulic Haplocryoll, fine-loamy , 0-3 percent slopes	Cumulic Haplocryoll, fi-lo	80%	0.08	60 plus	high silt content	12 to 24	18	193.6
		Typic Endoaquoll co-lo	20%	0.02	60 plus	Typic Endoaquoll, Disturbed surfaces	12 to 20	16	43.0
				27.3					68,092.4

[1] Percentage of components in map unit.

[2] Primary Plant Growth Medium = Suitability Ratings (See Table 2) of 1 or 2.

* Suitable topsoil for this soil map unit component estimated by interence to soils with similar gnetic characteristics found in the area

Version 1/1/2008

ACZ Laboratories Spreadsheets

Results	ANALYTE																				
CLIENTID	Acid Generation Potential (cal	Acid Neutralization Potential	Acid-Base Potential (calc on S	Boron, soluble (Hot Water)	Calcium, soluble (Sat. Paste)	Carbon, total organic (TOC)	Clay	Conductivity @25C	Magnesium, soluble (Sat. Paste	Neutralization Potential as Ca	Nitrate as N, extractable (KCL	Nitrate/ Nitrite as N, extracta	Nitrite as N, extractable (KCL	Nitrogen, total Kjeldahl	pH, Saturated Paste	Phosphorus, extractable (AB-DT	Potassium, extractable (AB-DTP	Potassium, soluble (Sat. Paste	Sand	Saturation Percent	Selenium, soluble (Hot Water)
1A-1 0-6"					3.15	2.60	20.00	0.54	0.78	0.80	5.40	6.10	0.70	0.27	6.80	32.00	430.00	1.19	36.30	59.20	
1A-1 17-28"					0.55	0.40	22.50	0.16	0.27	0.30	3.90	4.50	0.60	0.04	6.40	19.00	190.00	0.25	40.00	39.50	
1A-1 28-60"					0.89	0.20	28.80	0.22	0.24	0.50	4.50	5.20	0.70	0.03	6.70	25.00	130.00	0.07	36.30	40.90	
1A-1 60-100"					0.96	0.20	26.30	0.27	0.23	0.60	3.10	3.90	0.80	0.02	7.00	22.00	90.00	0.07	43.80	42.20	
1A-1 6-17"					1.11	0.60	18.80	0.25	0.36	0.30	4.20	4.90	0.70	0.05	6.50	27.00	210.00	0.36	36.30	45.80	
1A-2 15-25"					3.73	2.00	18.80	0.48	0.25	1.00	4.10	5.00	0.90	0.19	7.20	10.00	150.00	0.19	48.80	47.30	
1A-2 25-40"					4.30	1.30	16.30	0.52	0.38	0.80	4.60	5.30	0.70	0.14	7.30	23.00	130.00	0.14	45.00	47.70	
1A-2 40-60"					5.92	0.90	18.80	0.76	0.79	0.60	4.00	4.90	0.90	0.09	7.50	33.00	200.00	0.32	42.50	44.30	
1A-2 60-75"					3.26	1.00	18.80	0.45	0.35	0.80	3.50	4.40	0.90	0.09	7.50	34.00	160.00	0.15	46.30	40.90	
1A-2 75-90"					11.40	0.90	17.50	1.25	1.19	0.80	2.90	3.50	0.60	0.08	7.40	56.00	250.00	0.62	43.80	55.80	
1B1 0-7"					3.71	3.10	16.30	0.68	1.06	0.90	5.00	5.70	0.70	0.22	6.90	47.00	520.00	1.69	41.30	64.40	
1B1 15-28"					0.71	0.40	12.50	0.33	0.21	0.40	4.40	4.90	0.50	0.07	6.30	25.00	180.00	0.38	42.50	86.70	
1B1 28-60"					0.68	0.10	12.50	0.29	0.21	0.30	4.10	4.80	0.70	0.02	6.30	18.00	90.00	0.23	57.50	29.90	
1B1 7-15"					1.81	0.80	17.50	0.48	0.46	0.60	4.10	4.80	0.70	0.07	6.60	34.00	310.00	0.82	42.50	130.00	
2A-1 0-10"					1.59	1.20	12.50	0.31	0.45	0.50	4.40	4.70	0.30	0.16	6.60	14.00	280.00	0.52	57.50	46.80	
2A-1 10-24"					1.33	0.40	20.00	0.29	0.51	0.50	7.40	8.00	0.60	0.07	6.70	39.00	220.00	0.34	50.00	34.60	
2A-1 24-44"					1.26	0.40	27.50	0.19	0.25	8.10	34.00	35.00	0.70	0.05	7.50	17.00	120.00	0.06	35.00	44.30	
2A-1 44-65"					1.37	0.20	26.30	0.24	0.29	12.20	7.60	8.40	0.80	0.02	7.70	8.00	90.00	0.08	42.50	40.60	
2A-1 65-80"					1.51	0.20	20.00	0.24	0.34	14.80	6.40	7.10	0.70	0.03	7.80	9.00	60.00	0.08	55.00	34.30	
2A-2 0-5"					1.47	0.80	16.30	0.31	0.46	0.80	5.20	6.00	0.80	0.07	7.00	17.00	290.00	0.49	47.50	44.30	
2A-2 14-25"					0.65	0.50	18.80	0.16	0.23	0.50	47.00	47.70	0.70	0.04	6.90	17.00	210.00	0.20	35.00	32.30	
2A-2 25-38"					0.47	0.20	26.30	0.12	0.23	0.70	41.80	42.50	0.70	0.05	6.90	10.00	160.00	0.12	37.50	37.80	
2A-2 5-14"					1.49	1.40	15.00	0.32	0.44	0.60	7.00	7.80	0.80	0.22	7.00	27.00	450.00	0.91	48.80	45.20	
2A-3 0-9"					0.90	1.70	11.30	0.20	0.28	0.60	9.70	9.70		0.07	6.70	14.00	320.00	0.54	56.30	45.50	
2A-3 19-36"					0.54	0.50	22.50	0.14	0.19	0.50	4.10	4.80	0.70	0.01	6.70	9.00	110.00	0.11	47.50	32.00	
2A-3 36-52"					1.08	0.50	28.80	0.19	0.31	0.80	11.10	11.80	0.70	0.04	7.20	33.00	130.00	0.07	31.30	42.60	
2A-3 9-19"					0.47	0.70	21.30	0.14	0.23	0.50	5.10	5.80	0.70	0.14	6.80	9.00	240.00	0.21	45.00	33.60	
2A-5 0-6"					1.87	1.80	16.30	0.36	0.52	0.80	11.40	11.40		0.18	6.80	25.00	340.00	0.68	46.30	44.70	
2A-5 12-24"					0.37	0.50	31.30	0.11	0.24	0.50	4.20	4.90	0.70	0.06	7.00	7.00	240.00	0.26	28.80	39.20	
2A-5 24-48"					0.24	0.40	40.00	0.09	0.31	0.70	7.00	7.70	0.70	0.05	7.00	8.00	240.00	0.25	22.50	47.30	
2A-5 6-12"					2.15	1.40	21.30	0.36	0.42	0.70	6.50	7.10	0.60	0.11	7.00	14.00	350.00	0.54	46.30	39.60	
2A-6 0-6"					1.14	1.20	15.00	0.23	0.43	0.70	7.20	7.90	0.70	0.16	7.00	24.00	410.00	0.75	47.50	40.90	
2A-6 12-24"					0.96	1.00	16.30	0.18	0.31	0.70	3.50	4.10	0.60	0.10	7.20	19.00	160.00	0.10	45.00	39.20	
2A-6 24-40"					1.27	1.00	16.30	0.22	0.44	0.70	6.10	6.80	0.70	0.11	7.00	23.00	230.00	0.24	45.00	42.80	
2A-6 40-60"					1.54	0.50	25.00	0.51	0.73	1.40	3.90	4.90	1.00	0.04	7.90	31.00	190.00	0.39	50.00	31.60	
2A-6 60-80"					0.99	0.40	25.00	0.35	0.64	1.00	3.60	4.40	0.80	0.03	7.90	28.00	180.00	0.29	47.50	32.90	
2A-6 6-12"					0.84	1.30	16.30	0.19	0.31	0.70	5.30	6.00	0.70	0.13	7.00	22.00	410.00	0.52	50.00	38.80	
2A-7 0-7"					1.24	1.20	20.00	0.35	0.45	0.60	4.60	5.10	0.50	0.15	6.70	17.00	320.00	0.74	55.00	47.80	
2A-7 20-38"					1.06	0.30	23.80	0.28	0.41	0.50	1.90	2.70	0.80	0.04	6.80	14.00	170.00	0.30	50.00	34.20	
2A-7 7-20"					1.45	0.60	22.50	0.40	0.49	0.50	3.80	4.50	0.70	0.06	6.80	17.00	260.00	0.60	51.30	37.40	
2B-1 0-9"					1.11	1.30	20.00	0.30	0.42	0.60	7.90	8.50	0.60	0.17	6.70	17.00	310.00	0.75	58.80	49.70	
2B-1 19-33"					1.42	0.50	43.80	0.29	0.35	1.00	4.20	5.10	0.90	0.07	7.10	6.00	120.00	0.08	16.30	51.60	
2B-1 33-51"					2.52	0.30	33.80	0.42	0.58	6.10	4.40	5.30	0.90	0.04	7.60	3.00	70.00	0.06	30.00	43.40	
2B-1 9-19"					0.67	0.50	33.80	0.15	0.22	0.90	3.20	4.10	0.90	0.06	6.70	5.00	150.00	0.11	31.30	41.00	
D-1 0-6"					1.57	1.40	16.30	0.25	0.12	2.30	1.10	1.10		0.15	7.90	28.00	140.00	0.32	72.50	34.60	
D-1 16-25"					0.82	0.70	16.30	0.18	0.14	3.40	1.60	1.60		0.06	7.50	14.00	70.00	0.10	76.30	35.80	
D-1 25-40"					0.76	0.90	13.80	0.16	0.15	0.20	0.90	0.90		0.06	7.30	29.00	60.00	0.08	73.80	34.60	
D-1 40-65"					1.04	0.60	12.50	0.21	0.22	0.20		0.90	0.80	0.04	7.30	20.00	50.00	0.08	80.00	30.20	
D-1 6-16"					1.28	23.30	15.00	0.22	0.15	1.20	1.10	1.10		0.30	7.10	36.00	80.00	0.07	70.00	53.40	
D-1 65-90"					1.36	0.50	12.50	0.26	0.24	0.50		0.90	0.80	0.03	7.30	20.00	70.00	0.05	83.80	31.10	
D-10 0-5"					3.23	3.30	15.00	0.53	0.67	1.00	1.80	1.80		0.31	7.30	21.00	410.00	1.11	47.50	50.70	
D-10 11-23"					0.82	0.80	38.80	0.22	0.25	0.70	0.90	1.50	0.60	0.08	7.40	7.00	130.00	0.09	26.30	61.70	
D-10 23-35"					0.81	0.70	42.50	0.25	0.39	1.00	2.00	2.70	0.70	0.06	7.30	8.00	130.00	0.19	22.50	69.60	
D-10 5-11"					1.34	3.10	25.00	0.28	0.28	1.70	1.50	2.10	0.60	0.12	7.30	13.00	180.00	0.15	33.80	48.30	

Results	ANALYTE																				
CLIENTID	Acid Generation Potential (cal	Acid Neutralization Potential	Acid-Base Potential (calc on S	Boron, soluble (Hot Water)	Calcium, soluble (Sat. Paste)	Carbon, total organic (TOC)	Clay	Conductivity @25C	Magnesium, soluble (Sat. Paste	Neutralization Potential as Ca	Nitrate as N, extractable (KCL	Nitrate/ Nitrite as N, extracta	Nitrite as N, extractable (KCL	Nitrogen, total Kjeldahl	pH, Saturated Paste	Phosphorus, extractable (AB-DT	Potassium, extractable (AB-DTP	Potassium, soluble (Sat. Paste	Sand	Saturation Percent	Selenium, soluble (Hot Water)
D-11 0-12"					2.98	1.60	25.00	0.42	0.35	3.10	1.80	2.40	0.60	0.08	7.60	15.00	230.00	0.22	42.50	40.80	
D-11 11-48"	12.00	35.00	23.00	1.41	20.50	25.00	17.50	1.63	2.88	3.50	0.70	1.50	0.80	0.24	7.10	2.00	110.00	0.11	62.50	53.20	
D-11 62-82"					12.80	3.60	18.80	1.33	4.28	5.30	0.60	1.30	0.70	0.15	7.60	9.00	140.00	0.16	51.30	44.80	
D-12 0-6"					2.11	3.20	12.50	0.42	0.62	0.70	2.60	2.60		0.25	6.80	22.00	440.00	1.06	50.00	55.90	
D-12 14-28"					0.82	0.70	12.50	0.21	0.31	0.50	1.90	2.60	0.70	0.42	7.00	13.00	170.00	0.20	51.30	36.50	
D-12 28-48"					1.15	0.40	18.80	0.25	0.36	0.60	1.80	2.50	0.70	0.05	7.10	11.00	170.00	0.16	53.80	36.40	
D-12 48-66"					1.63	0.20	18.80	0.30	0.33	2.60	1.90	2.50	0.60	0.03	7.70	11.00	140.00	0.09	56.30	38.00	
D-12 6-14"					1.23	1.00	13.80	0.27	0.41	0.70	2.00	2.70	0.70	0.11	6.80	16.00	240.00	0.38	52.50	42.70	
D-2 0-6"					0.80	1.10	15.00	0.18	0.16	0.60	0.20	0.90	0.70	0.06	7.30	15.00	90.00	0.11	77.50	33.50	
D-2 6-24"					0.16	0.30	13.80	0.50	0.13	0.40		0.90	0.80	0.03	7.30	13.00	80.00	0.08	78.80	33.30	
D-3	14.00	33.00	19.00	2.30	15.30	30.10	15.00	0.16	3.06	3.30	1.00	1.00		0.12	7.30	5.00	80.00	0.13	71.30	59.20	
D-3 0-10"	0.00	14.00	14.00	0.57	1.20	2.30	18.80	0.27	0.21	1.40	1.50	1.50		0.32	7.60	29.00	320.00	0.33	72.50	40.70	
D-3 10-20"	0.00	15.00	15.00	0.66	1.52	1.70	17.50	0.27	0.24	1.50	0.90	0.90		0.11	7.50	20.00	190.00	0.18	71.30	35.30	
D-3 20-40"	0.00	10.00	10.00	0.65	0.68	1.60	18.80	0.17	0.14	1.00	0.40	1.20	0.80	0.09	7.60	16.00	110.00	0.07	72.50	37.00	
D-3 40-60"	0.00	18.00	18.00	0.48	1.13	1.80	17.50	0.25	0.26	1.80	0.20	1.00	0.80	0.10	7.80	17.00	110.00	0.06	72.50	38.90	
D-3 60-75"	4.00	18.00	14.00	1.11	13.40	1.90	17.50	0.16	5.67	1.80	0.40	1.20	0.80	0.16	7.40	15.00	130.00	0.16	72.50	37.90	
D-4 0-8"					0.82	1.40	17.50	0.20	0.13	1.20	1.30	1.30		0.06	7.60	22.00	150.00	0.07	71.30	40.20	
D-4 19-72"	0.00	23.00	23.00	2.25	16.90	3.20	16.30	0.20	8.58	2.30	1.10	1.10		0.68	7.30	4.00	90.00	0.13	77.50	61.60	
D-4 8-16"					0.47	1.30	18.80	0.14	0.12	0.90	0.30	1.10	0.80	0.09	7.80	21.00	150.00	0.06	68.80	39.20	
D-5 0-6"					1.17	1.50	21.30	0.26	0.24	2.30	0.50	1.20	0.70	0.12	7.80	24.00	140.00	0.09	65.00	45.90	
D-5 20-40"					0.34	1.00	21.30	0.12	0.10	2.70	0.90	1.60	0.70	0.04	7.80	20.00	80.00	0.08	63.80	52.20	
D-5 40-60"					1.33	1.60	21.30	0.25	0.31	3.30	7.90	8.60	0.70	0.09	7.70	18.00	80.00	0.08	37.50	52.30	
D-5 6-20"					0.81	1.40	21.30	0.18	0.15	2.60	0.50	1.10	0.60	0.07	7.80	24.00	90.00	0.06	65.00	47.00	
D-6 0-7"					2.48	1.60	22.50	0.28	0.38	3.70	9.00	9.80	0.80	0.09	7.50	15.00	240.00	0.45	30.00	52.10	
D-6 24-48"					3.21	1.30	20.00	0.45	0.76	3.20	3.30	4.10	0.80	0.07	7.50	12.00	70.00	0.09	40.00	54.40	
D-6 48-72"					2.96	1.40	20.00	0.45	0.69	3.30	2.30	3.10	0.80	0.08	7.40	10.00	100.00	0.09	37.50	51.00	
D-7 0-6"					4.92	1.30	20.00	0.69	0.72	2.70	1.90	1.90		0.09	7.20	7.00	250.00	0.67	30.00	49.60	
D-7 20-42"					0.93	0.90	21.30	0.20	0.32	3.30	0.50	1.20	0.70	0.05	7.80	8.00	90.00	0.13	32.50	43.30	
D-7 42-58"					1.63	1.20	22.50	0.30	0.42	2.80		0.90	0.80	0.07	7.60	8.00	110.00	0.09	32.50	54.30	
D-7 58-70"					3.35	0.80	12.50	0.48	0.83	0.80		0.70	0.80	0.07	7.20	16.00	140.00	0.11	52.50	36.50	
D-7 6-20"					2.98	1.10	22.50	0.46	0.56	3.30	0.40	1.20	0.80	0.06	7.50	10.00	130.00	0.15	30.00	47.30	
D-8 0-6"					3.91	2.50	8.80	0.59	0.79	1.20	2.10	2.10		0.22	7.00	25.00	360.00	1.11	52.50	64.60	
D-8 13-20"					0.56	0.40	12.50	0.16	0.23	0.60	0.80	0.80		0.05	7.00	20.00	190.00	0.24	55.00	38.80	
D-8 20-48"					0.60	0.30	16.30	0.18	0.30	0.60		0.80	0.80	0.03	7.30	17.00	200.00	0.22	53.80	38.00	
D-8 6-13"					1.13	1.10	10.00	0.28	0.28	0.80	1.70	1.70		0.15	7.10	20.00	280.00	0.42	55.00	41.50	
D-9A 0-6"					3.48	2.00	16.30	0.45	0.39	2.00	1.00	1.80	0.80	0.12	7.50	11.00	170.00	0.20	47.50	51.60	
D-9A 115-145"	0.00	5.00	5.00	0.57	12.70	0.30	22.50	1.25	2.67	0.50	3.60	4.20	0.60	0.05	7.10	13.00	200.00	0.35	50.00	42.50	
D-9A 12-30"	15.00	42.00	27.00	2.31	1.33	29.60	12.50	0.27	0.28	4.20	0.70	0.70		1.10	7.50	3.00	80.00	0.10	68.80	37.50	
D-9A 30-68"	19.00	54.00	35.00	2.16	20.90	24.40	17.50	2.11	11.00	5.40	0.80	0.80		0.49	7.10	2.00	100.00	0.16	57.50	55.20	
D-9A 6-12"					3.25	2.20	17.50	0.47	0.54	1.90		0.90	0.80	0.12	7.70	11.00	120.00	0.09	50.00	47.60	
D-9A 80-95"	2.00	17.00	15.00	0.91	2.34	4.30	15.00	0.35	0.29	1.70	0.60	1.40	0.80	0.18	7.50	9.00	120.00	0.15	53.80	49.00	
D-9A 95-115"	1.00	13.00	12.00	0.86	1.35	2.40	15.00	0.25	0.29	1.30	1.30	1.90	0.60	0.39	7.70	11.00	150.00	0.05	55.00	51.00	
D-9B 0-6"	0.00	24.00	24.00	0.46	2.76	1.70	25.00	0.43	0.39	2.40	2.90	3.50	0.60	0.13	7.40	20.00	250.00	0.32	35.00	41.50	
D-9B 12-30"	16.00	51.00	35.00	2.27	18.50	23.10	23.80	1.61	3.87	5.10	1.50	1.50		0.73	7.10	3.00	120.00	0.17	50.00	50.30	0.01
D-9B 30-52"	35.00	46.00	11.00	1.41	25.10	54.00	2.50	1.77	1.48	4.60	1.20	1.20		1.43	7.10	1.00	30.00	0.06	93.80	59.00	
D-9B 52-80"	2.00	7.00	5.00	1.73	20.10	1.40	13.80	1.85	6.54	0.70	0.40	1.10	0.70	0.09	7.00	11.00	150.00	0.42	60.00	38.00	
D-9B 6-12"	0.00	22.00	22.00	0.49	2.47	2.40	17.50	0.37	0.39	2.20	0.90	1.60	0.70	0.24	7.40	31.00	170.00	0.12	51.30	34.90	
D-9B 80-102"	0.00	6.00	6.00	0.86	19.40	0.90	15.00	1.73	6.62	0.60	0.40	1.10	0.70	0.06	7.00	11.00	180.00	0.58	53.80	37.90	
Grand Total	6.32	23.84	17.53	1.23	3.45	3.17	19.53	0.42	0.89	1.80	4.38	4.66	0.72	0.14	7.22	17.36	183.53	0.29	50.84	45.20	0.01

Results

CLIENTID	Sieve-53 um (270 mesh)	Sieve-2000 um (2.0 mm)	Silt	Sodium Absorption Ratio	Sodium, soluble (Sat. Paste)	Solids, Percent	Sulfur Organic Residual	Sulfur Pyritic Sulfide	Sulfur Sulfate	Sulfur Total	Total Sulfur minus Sulfate
1A-1 0-6"	79.40	92.50	43.80	0.07	0.11	76.90					
1A-1 17-28"	79.40	86.20	37.50	0.15	0.10	96.10					
1A-1 28-60"	80.90	82.00	35.00	0.51	0.39	92.40					
1A-1 60-100"	81.60	76.90	30.00	0.76	0.59	88.60					
1A-1 6-17"	77.00	92.60	45.00	0.11	0.10	97.00					
1A-2 15-25"	81.70	82.80	32.50	0.17	0.24	88.00					
1A-2 25-40"	81.80	79.60	38.80	0.14	0.22	95.60					
1A-2 40-60"	81.00	84.70	38.80	0.15	0.29	96.10					
1A-2 60-75"	83.90	74.00	35.00	0.16	0.22	96.00					
1A-2 75-90"	83.60	76.00	38.80	0.13	0.33	94.70					
1B1 0-7"	83.70	79.80	42.50	0.11	0.17	75.80					
1B1 15-28"	82.30	79.30	45.00	1.25	0.85	96.80					
1B1 28-60"	81.70	82.40	30.00	0.89	0.60	97.30					
1B1 7-15"	83.30	79.90	40.00	0.57	0.61	91.70					
2A-1 0-10"	75.80	91.80	30.00	0.19	0.20	86.00					
2A-1 10-24"	84.60	72.00	30.00	0.37	0.36	94.60					
2A-1 24-44"	86.10	83.90	37.50	0.20	0.18	94.20					
2A-1 44-65"	87.70	90.60	31.30	0.39	0.36	95.00					
2A-1 65-80"	86.50	90.10	25.00	0.41	0.40	95.10					
2A-2 0-5"	80.50	88.90	36.30	0.33	0.33	87.30					
2A-2 14-25"	87.00	64.50	46.30	0.43	0.29	96.30					
2A-2 25-38"	84.40	70.70	36.30	0.37	0.22	94.10					
2A-2 5-14"	78.00	88.50	36.30	0.33	0.33	86.30					
2A-3 0-9"	72.80	86.80	32.50	0.23	0.18	87.70					
2A-3 19-36"	80.60	75.30	30.00	0.41	0.25	94.70					
2A-3 36-52"	91.00	61.30	40.00	0.33	0.28	93.50					
2A-3 9-19"	82.10	80.70	33.80	0.33	0.20	94.50					
2A-5 0-6"	80.60	80.40	37.50	0.38	0.42	87.10					
2A-5 12-24"	92.80	45.00	40.00	0.38	0.21	91.70					
2A-5 24-48"	95.20	39.30	37.50	0.42	0.22	90.70					
2A-5 6-12"	87.50	60.50	32.50	0.33	0.38	89.00					
2A-6 0-6"	80.30	91.30	37.50	0.16	0.15	84.30					
2A-6 12-24"	82.00	86.80	38.80	0.43	0.35	96.00					
2A-6 24-40"	84.40	79.30	38.80	0.42	0.39	93.60					
2A-6 40-60"	85.20	85.20	25.00	1.39	1.48	94.90					
2A-6 60-80"	86.50	76.50	27.50	1.09	0.98	93.40					
2A-6 6-12"	80.80	83.60	33.80	0.21	0.16	90.40					
2A-7 0-7"	75.80	87.60	25.00	0.55	0.51	86.40					
2A-7 20-38"	79.50	79.40	26.30	0.43	0.37	93.10					
2A-7 7-20"	77.40	86.90	26.30	0.43	0.43	91.80					
2B-1 0-9"	78.80	84.90	21.30	0.18	0.16	82.10					
2B-1 19-33"	90.50	79.60	40.00	0.44	0.42	93.10					
2B-1 33-51"	84.30	88.30	36.30	0.24	0.31	95.90					
2B-1 9-19"	91.30	39.90	35.00	0.37	0.25	94.10					
D-1 0-6"	91.50	75.60	11.30	0.23	0.22	88.10					
D-1 16-25"	91.90	70.00	7.50	0.08	0.06	91.20					
D-1 25-40"	88.60	88.70	12.50	0.11	0.08	95.50					
D-1 40-65"	91.50	78.50	7.50	0.11	0.09	94.30					
D-1 6-16"	87.80	95.40	15.00	0.11	0.10	91.50					
D-1 65-90"	93.80	67.10	3.80	0.15	0.14	94.20					
D-10 0-5"	68.20	81.60	37.50	0.16	0.23	82.60					
D-10 11-23"	97.00	23.00	35.00	0.49	0.36	91.70					
D-10 23-35"	98.00	18.90	35.00	0.43	0.34	91.20					
D-10 5-11"	91.10	47.40	41.30	0.40	0.36	87.40					

Results

CLIENTID	Sieve-53 um (270 mesh)	Sieve-2000 um (2.0 mm)	Silt	Sodium Absorption Ratio	Sodium, soluble (Sat. Paste)	Solids, Percent	Sulfur Organic Residual	Sulfur Pyritic Sulfide	Sulfur Sulfate	Sulfur Total	Total Sulfur minus Sulfate
D-11 0-12"	88.30	57.90	32.50	0.20	0.26	85.50					
D-11 11-48"	93.10	65.80	20.00	0.06	0.23	86.40	0.22	0.07	0.10	0.39	0.29
D-11 62-82"	93.70	32.80	30.00	0.08	0.26	90.30					
D-12 0-6"	76.60	91.00	37.50	0.18	0.21	79.00					
D-12 14-28"	81.20	69.50	36.30	0.35	0.27	94.70					
D-12 28-48"	82.90	67.40	27.50	0.32	0.28	94.60					
D-12 48-66"	76.50	84.40	25.00	0.27	0.27	93.90					
D-12 6-14"	77.30	84.00	33.80	0.30	0.28	84.80					
D-2 0-6"	91.40	68.80	7.50	0.08	0.06	92.20					
D-2 6-24"	91.10	72.60	7.50	0.05	0.02	91.10					
D-3	98.10	49.50	13.80		0.07	90.20	0.23		0.23	0.46	0.23
D-3 0-10"	92.40	81.10	8.80	0.08	0.07	88.80	0.01	0.01		0.02	0.02
D-3 10-20"	92.60	75.20	11.30	0.09	0.09	93.70	0.02			0.02	0.02
D-3 20-40"	91.10	81.70	8.80	0.09	0.06	95.40	0.02		0.01	0.02	0.01
D-3 40-60"	93.10	67.30	10.00	0.08	0.07	93.90	0.02		0.01	0.03	0.02
D-3 60-75"	92.60	79.80	10.00	0.05	0.17	93.80	0.02		0.11	0.13	0.02
D-4 0-8"	90.90	88.70	11.30	0.07	0.05	87.60					
D-4 19-72"	97.60	62.80	6.30		0.08	93.50	0.01	0.01		0.02	0.02
D-4 8-16"	90.80	84.60	12.50	0.05	0.03	94.90					
D-5 0-6"	93.80	76.10	13.80	0.07	0.06	90.00					
D-5 20-40"	94.20	84.70	15.00	0.08	0.04	94.30					
D-5 40-60"	86.90	84.40	41.30	0.33	0.30	91.60					
D-5 6-20"	93.10	89.10	13.80	0.07	0.05	92.20					
D-6 0-7"	87.70	87.60	47.50	0.11	0.14	87.90					
D-6 24-48"	88.70	72.40	40.00	0.21	0.30	94.70					
D-6 48-72"	91.10	61.40	42.50	0.20	0.28	93.00					
D-7 0-6"	90.30	68.20	50.00	0.09	0.16	85.80					
D-7 20-42"	91.50	67.70	46.30	0.12	0.10	92.50					
D-7 42-58"	90.90	70.30	45.00	0.22	0.23	93.00					
D-7 58-70"	76.40	94.60	35.00	0.13	0.20	95.70					
D-7 6-20"	92.90	53.90	47.50	0.12	0.17	87.40					
D-8 0-6"	79.70	92.10	38.80	0.08	0.13	80.40					
D-8 13-20"	75.80	96.90	32.50	0.17	0.11	96.50					
D-8 20-48"	76.10	92.60	30.00	0.17	0.12	95.70					
D-8 6-13"	78.90	90.50	35.00	0.14	0.12	84.90					
D-9A 0-6"	85.60	75.60	36.30	0.09	0.13	87.30					
D-9A 115-145"	81.20	81.50	27.50	0.10	0.30	89.50	0.01		0.01	0.02	0.01
D-9A 12-30"	94.40	59.80	18.80	0.10	0.09	90.90	0.18	0.07	0.23	0.48	0.25
D-9A 30-68"	97.40	51.70	25.00	0.03	0.12	89.40	0.23		0.43	0.62	0.19
D-9A 6-12"	84.60	79.30	32.50	0.08	0.12	88.70					
D-9A 80-95"	85.50	80.30	31.30	0.07	0.09	90.60	0.03		0.03	0.06	0.03
D-9A 95-115"	84.50	74.40	30.00	0.24	0.22	89.70	0.02		0.02	0.04	0.02
D-9B 0-6"	85.00	82.30	40.00	0.18	0.23	86.60	0.02			0.02	0.02
D-9B 12-30"	96.30	47.20	26.30	0.07	0.25	91.90	0.20	0.12	0.20	0.52	0.32
D-9B 30-52"	97.10	72.10	3.80	0.04	0.16	91.50	0.51	0.08	0.54	1.13	0.59
D-9B 52-80"	78.60	82.70	26.30	0.05	0.21	95.50	0.02		0.04	0.05	0.01
D-9B 6-12"	80.70	88.20	31.30	0.17	0.21	85.70	0.03			0.03	0.03
D-9B 80-102"	79.80	82.70	31.30	0.06	0.24	95.90	0.01		0.02	0.03	0.01
Grand Total	85.89	75.68	29.69	0.26	0.25	91.09	0.10	0.06	0.14	0.22	0.11

ACZ Laboratories Lab Analysis Sheets

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Bruce Chesler, Greg Hunt

Project ID:
ACZ Project ID: L59731

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59731. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59731. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048 (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59731

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 20 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59731. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Total Kjeldahl Nitrogen values flagged with an "N1", the Laboratory Fortified Blank (LFB) failed high due to suspected ammonia contamination in the tube. The data was flagged and accepted since there are no specified control limits for the soil method.

3. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 0-6"

ACZ Sample ID: ***L59731-01***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 11:01	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.57		*	meq/L	0.01	0.05	12/14/06 16:55	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.02	0.08	12/14/06 16:55	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	140			mg/Kg	20	50	11/29/06 4:42	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.324		*	meq/L	0.008	0.03	12/14/06 16:55	gme
Sodium Absorption Ratio	Calculation	0.23				0.03	0.15	12/20/06 0:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	12/14/06 16:55	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	11/14/06 15:11	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.247		*	mmhos/cm	0.001	0.01	11/15/06 11:00	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.3		*	%	0.1	0.5	11/16/06 8:43	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.9		*	units	0.1	0.1	11/15/06 11:00	srs/aep
Saturation Percent	USDA No. 60 (2)	34.60		*	%	0.01	0.1	11/15/06 11:00	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.5		*	% Passing	0.1	0.5	11/29/06 8:00	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	75.6		*	% Passing	0.1	0.5	11/21/06 11:00	as
Solids, Percent	CLPSOW390, PART F, D-98	88.1		*	%	0.1	0.5	11/19/06 16:14	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		72.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		11.3		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 0-6"

ACZ Sample ID: ***L59731-01***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 17:28	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:00	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:05	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 17:00	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 8:00	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.1			mg/Kg	0.2	1	12/20/06 0:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	11/29/06 19:41	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:41	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.15	H	*	%	0.01	0.05	11/16/06 13:06	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	28	H	*	mg/Kg	1	5	11/28/06 17:48	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 6-16"

ACZ Sample ID: ***L59731-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 11:32	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.28		*	meq/L	0.01	0.05	12/14/06 17:02	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.15		*	meq/L	0.02	0.08	12/14/06 17:02	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	80			mg/Kg	20	50	11/29/06 4:50	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.070		*	meq/L	0.008	0.03	12/14/06 17:02	gme
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.10		*	meq/L	0.01	0.04	12/14/06 17:02	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	23.3		*	%	0.1	0.5	11/14/06 19:34	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.215		*	mmhos/cm	0.001	0.01	11/15/06 13:18	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.2		*	%	0.1	0.5	11/16/06 9:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/15/06 13:18	srs/aep
Saturation Percent	USDA No. 60 (2)	53.40		*	%	0.01	0.1	11/15/06 13:18	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	87.8		*	% Passing	0.1	0.5	11/29/06 8:12	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	95.4		*	% Passing	0.1	0.5	11/21/06 11:18	as
Solids, Percent	CLPSOW390, PART F, D-98	91.5		*	%	0.1	0.5	11/19/06 18:42	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		70.0		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		15.0		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 6-16"

ACZ Sample ID: ***L59731-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 19:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:01	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:17	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 18:36	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 8:14	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.1			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	11/29/06 19:43	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:43	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.30	H	*	%	0.01	0.06	11/16/06 13:09	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	36	H	*	mg/Kg	1	5	11/28/06 17:51	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 16-25"

ACZ Sample ID: ***L59731-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 12:03	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.82		*	meq/L	0.01	0.05	12/14/06 17:06	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.14		*	meq/L	0.02	0.08	12/14/06 17:06	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	70			mg/Kg	20	50	11/29/06 5:14	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.096		*	meq/L	0.008	0.03	12/14/06 17:06	gme
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.06		*	meq/L	0.01	0.04	12/14/06 17:06	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.7		*	%	0.1	0.5	11/14/06 21:45	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.182		*	mmhos/cm	0.001	0.01	11/15/06 14:27	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.4		*	%	0.1	0.5	11/16/06 9:27	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/15/06 14:27	srs/aep
Saturation Percent	USDA No. 60 (2)	35.80		*	%	0.01	0.1	11/15/06 14:27	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.9		*	% Passing	0.1	0.5	11/29/06 8:25	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	70.0		*	% Passing	0.1	0.5	11/21/06 11:37	as
Solids, Percent	CLPSOW390, PART F, D-98	91.2		*	%	0.1	0.5	11/19/06 19:57	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		76.3		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		7.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 16-25"

ACZ Sample ID: ***L59731-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 20:24	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:03	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:22	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 19:24	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 8:28	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.6			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.6	H	*	mg/Kg	0.2	1	11/29/06 19:46	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:46	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.057	H	*	%	0.002	0.008	11/16/06 13:11	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	14	H	*	mg/Kg	1	5	11/28/06 17:52	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 25-40"

ACZ Sample ID: ***L59731-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 12:19	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.76		*	meq/L	0.01	0.05	12/14/06 17:09	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.15		*	meq/L	0.02	0.08	12/14/06 17:09	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	60			mg/Kg	20	50	11/29/06 5:18	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.081		*	meq/L	0.008	0.03	12/14/06 17:09	gme
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.08		*	meq/L	0.01	0.04	12/14/06 17:09	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.9		*	%	0.1	0.5	11/14/06 23:57	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.158		*	mmhos/cm	0.001	0.01	11/15/06 15:36	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.2	B	*	%	0.1	0.5	11/16/06 9:49	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/15/06 15:36	srs/aep
Saturation Percent	USDA No. 60 (2)	34.60		*	%	0.01	0.1	11/15/06 15:36	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	88.6		*	% Passing	0.1	0.5	11/29/06 8:37	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.7		*	% Passing	0.1	0.5	11/21/06 11:56	as
Solids, Percent	CLPSOW390, PART F, D-98	95.5		*	%	0.1	0.5	11/19/06 21:11	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		13.8		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		73.8		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		12.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 25-40"

ACZ Sample ID: ***L59731-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 21:22	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:04	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:28	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 20:12	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 8:42	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.9	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:47	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:47	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.062	H	*	%	0.002	0.01	11/16/06 13:12	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	29	H	*	mg/Kg	1	5	11/28/06 17:54	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 40-65"

ACZ Sample ID: ***L59731-05***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 12:34	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.04		*	meq/L	0.01	0.05	12/14/06 17:12	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.02	0.08	12/14/06 17:12	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	50	B		mg/Kg	20	50	11/29/06 5:22	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.076		*	meq/L	0.008	0.03	12/14/06 17:12	gme
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.09		*	meq/L	0.01	0.04	12/14/06 17:12	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.6		*	%	0.1	0.5	11/15/06 2:08	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.214		*	mmhos/cm	0.001	0.01	11/15/06 16:45	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.2	B	*	%	0.1	0.5	11/16/06 10:10	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/15/06 16:45	srs/aep
Saturation Percent	USDA No. 60 (2)	30.20		*	%	0.01	0.1	11/15/06 16:45	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.5		*	% Passing	0.1	0.5	11/29/06 8:50	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	78.5		*	% Passing	0.1	0.5	11/21/06 12:15	as
Solids, Percent	CLPSOW390, PART F, D-98	94.3		*	%	0.1	0.5	11/19/06 22:25	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		80.0		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		7.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 40-65"

ACZ Sample ID: ***L59731-05***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 22:21	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:06	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:34	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 21:00	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 8:56	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:52	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 19:52	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.036	H	*	%	0.002	0.01	11/16/06 13:13	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/28/06 17:55	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 65-90"

ACZ Sample ID: ***L59731-06***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 12:50	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.36		*	meq/L	0.01	0.05	12/14/06 17:16	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.02	0.08	12/14/06 17:16	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	70			mg/Kg	20	50	11/29/06 5:26	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.054		*	meq/L	0.008	0.03	12/14/06 17:16	gme
Sodium Absorption Ratio	Calculation	0.15				0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.14		*	meq/L	0.01	0.04	12/14/06 17:16	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	11/15/06 4:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.257		*	mmhos/cm	0.001	0.01	11/15/06 17:54	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	11/16/06 10:32	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/15/06 17:54	srs/aep
Saturation Percent	USDA No. 60 (2)	31.10		*	%	0.01	0.1	11/15/06 17:54	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.8		*	% Passing	0.1	0.5	11/29/06 9:03	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	67.1		*	% Passing	0.1	0.5	11/21/06 12:34	as
Solids, Percent	CLPSOW390, PART F, D-98	94.2		*	%	0.1	0.5	11/19/06 23:39	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		83.8		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		3.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		LS		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-1 65-90"

ACZ Sample ID: ***L59731-06***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/21/06 23:19	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:07	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:40	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 21:48	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 9:11	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:53	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 19:53	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.033	H	*	%	0.002	0.01	11/16/06 13:14	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/28/06 17:56	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-2 0-6"

ACZ Sample ID: ***L59731-07***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 13:36	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.80		*	meq/L	0.01	0.05	12/14/06 17:26	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.16		*	meq/L	0.02	0.08	12/14/06 17:26	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	90			mg/Kg	20	50	11/29/06 5:30	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.105		*	meq/L	0.008	0.03	12/14/06 17:26	gme
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.06		*	meq/L	0.01	0.04	12/14/06 17:26	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.1		*	%	0.1	0.5	11/15/06 6:31	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.178		*	mmhos/cm	0.001	0.01	11/15/06 19:03	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	11/16/06 10:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/15/06 19:03	srs/aep
Saturation Percent	USDA No. 60 (2)	33.50		*	%	0.01	0.1	11/15/06 19:03	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.4		*	% Passing	0.1	0.5	11/29/06 9:15	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	68.8		*	% Passing	0.1	0.5	11/21/06 12:53	as
Solids, Percent	CLPSOW390, PART F, D-98	92.2		*	%	0.1	0.5	11/20/06 0:54	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		77.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		7.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-2 0-6"

ACZ Sample ID: ***L59731-07***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 0:18	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:09	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:45	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 22:36	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 9:25	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.2	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:54	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	11/29/06 19:54	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.060	H	*	%	0.006	0.03	11/16/06 13:52	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	15	H	*	mg/Kg	1	5	11/28/06 17:59	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-2 6-24"

ACZ Sample ID: ***L59731-08***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 13:52	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.16		*	meq/L	0.01	0.05	12/14/06 17:29	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.13		*	meq/L	0.02	0.08	12/14/06 17:29	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	80			mg/Kg	20	50	11/29/06 5:34	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.075		*	meq/L	0.008	0.03	12/14/06 17:29	gme
Sodium Absorption Ratio	Calculation	0.05	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.02	B	*	meq/L	0.01	0.04	12/14/06 17:29	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.3	B	*	%	0.1	0.5	11/15/06 8:42	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.497		*	mmhos/cm	0.001	0.01	11/15/06 20:12	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.4	B	*	%	0.1	0.5	11/16/06 11:16	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/15/06 20:12	srs/aep
Saturation Percent	USDA No. 60 (2)	33.30		*	%	0.01	0.1	11/15/06 20:12	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.1		*	% Passing	0.1	0.5	11/29/06 9:28	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	72.6		*	% Passing	0.1	0.5	11/21/06 13:12	as
Solids, Percent	CLPSOW390, PART F, D-98	91.1		*	%	0.1	0.5	11/20/06 2:08	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		13.8		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		78.8		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		7.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-2 6-24"

ACZ Sample ID: ***L59731-08***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 1:17	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:11	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:51	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/14/06 23:24	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 9:39	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:55	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 19:55	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.030	H	*	%	0.002	0.009	11/16/06 13:53	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	13	H	*	mg/Kg	1	5	11/28/06 18:00	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 0-10"

ACZ Sample ID: ***L59731-09***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 14:07	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.57		*	mg/Kg	0.05	0.3	11/18/06 4:52	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	1.20		*	meq/L	0.01	0.05	12/14/06 17:33	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.21		*	meq/L	0.02	0.08	12/14/06 17:33	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	320			mg/Kg	20	50	11/29/06 5:38	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.325		*	meq/L	0.008	0.03	12/14/06 17:33	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 15:22	djt
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.07		*	meq/L	0.01	0.04	12/14/06 17:33	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 0-10"

ACZ Sample ID: ***L59731-09***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	14			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	14			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.3		*	%	0.1	0.5	11/15/06 10:54	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.271		*	mmhos/cm	0.001	0.01	11/15/06 21:21	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.4		*	%	0.1	0.5	11/16/06 11:38	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	11/15/06 21:21	srs/aep
Saturation Percent	USDA No. 60 (2)	40.70		*	%	0.01	0.1	11/15/06 21:21	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	92.4		*	% Passing	0.1	0.5	11/29/06 9:41	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	81.1		*	% Passing	0.1	0.5	11/21/06 13:31	as
Solids, Percent	CLPSOW390, PART F, D-98	88.8		*	%	0.1	0.5	11/20/06 3:22	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.01	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.01	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Sulfate			U	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		72.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		8.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 0-10"

ACZ Sample ID: ***L59731-09***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 2:15	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:12	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 9:15	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 15:57	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 0:12	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 9:53	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.5			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.5	H	*	mg/Kg	0.2	1	11/29/06 19:56	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:56	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.32	H	*	%	0.02	0.1	11/16/06 13:54	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	29	H	*	mg/Kg	1	5	11/28/06 18:01	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 10-20"

ACZ Sample ID: ***L59731-10***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 14:23	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.66		*	mg/Kg	0.05	0.3	11/18/06 5:00	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	1.52		*	meq/L	0.01	0.05	12/14/06 17:36	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.02	0.08	12/14/06 17:36	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	190			mg/Kg	20	50	11/29/06 5:42	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.175		*	meq/L	0.008	0.03	12/14/06 17:36	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 15:29	djt
Sodium Absorption Ratio	Calculation	0.09	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.09		*	meq/L	0.01	0.04	12/14/06 17:36	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 10-20"

ACZ Sample ID: ***L59731-10***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	15			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	15			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.7		*	%	0.1	0.5	11/15/06 13:05	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.273		*	mmhos/cm	0.001	0.01	11/15/06 22:30	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.5		*	%	0.1	0.5	11/16/06 11:59	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/15/06 22:30	srs/aep
Saturation Percent	USDA No. 60 (2)	35.30		*	%	0.01	0.1	11/15/06 22:30	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	92.6		*	% Passing	0.1	0.5	11/29/06 9:53	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	75.2		*	% Passing	0.1	0.5	11/21/06 13:50	as
Solids, Percent	CLPSOW390, PART F, D-98	93.7		*	%	0.1	0.5	11/20/06 4:37	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Sulfate			U	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		71.3		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		11.3		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 10-20"

ACZ Sample ID: ***L59731-10***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 3:14	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:14	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 9:45	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:02	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 1:00	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 10:07	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.9	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/29/06 19:58	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 19:58	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.108	H	*	%	0.004	0.02	11/16/06 13:56	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/28/06 18:02	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 20-40"

ACZ Sample ID: ***L59731-11***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 14:38	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.65		*	mg/Kg	0.05	0.3	11/18/06 5:24	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	0.68		*	meq/L	0.01	0.05	12/14/06 17:39	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.14		*	meq/L	0.02	0.08	12/14/06 17:39	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	110			mg/Kg	20	50	11/29/06 5:46	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.073		*	meq/L	0.008	0.03	12/14/06 17:39	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:41	djt
Sodium Absorption Ratio	Calculation	0.09	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.06		*	meq/L	0.01	0.04	12/14/06 17:39	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 20-40"

ACZ Sample ID: ***L59731-11***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	10			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	10			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.6		*	%	0.1	0.5	11/15/06 15:17	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.169		*	mmhos/cm	0.001	0.01	11/15/06 23:39	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	11/16/06 12:21	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	11/15/06 23:39	srs/aep
Saturation Percent	USDA No. 60 (2)	37.00		*	%	0.01	0.1	11/15/06 23:39	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.1		*	% Passing	0.1	0.5	11/29/06 10:06	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	81.7		*	% Passing	0.1	0.5	11/21/06 14:09	as
Solids, Percent	CLPSOW390, PART F, D-98	95.4		*	%	0.1	0.5	11/20/06 5:51	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Sulfate		0.01	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.01	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		72.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		8.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 20-40"

ACZ Sample ID: ***L59731-11***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 4:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:15	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 10:00	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:08	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 1:48	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 10:22	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.4	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	11/29/06 19:59	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 19:59	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.092	H	*	%	0.003	0.01	11/16/06 13:57	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	16	H	*	mg/Kg	1	5	11/28/06 18:03	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 40-60"

ACZ Sample ID: ***L59731-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 14:54	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.48		*	mg/Kg	0.05	0.3	11/18/06 5:28	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	1.13		*	meq/L	0.01	0.05	12/14/06 17:43	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.26		*	meq/L	0.02	0.08	12/14/06 17:43	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	110			mg/Kg	20	50	11/29/06 5:50	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.058		*	meq/L	0.008	0.03	12/14/06 17:43	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:45	djt
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.07		*	meq/L	0.01	0.04	12/14/06 17:43	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 40-60"

ACZ Sample ID: ***L59731-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	18			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	18			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.8		*	%	0.1	0.5	11/15/06 17:28	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.247		*	mmhos/cm	0.001	0.01	11/16/06 0:48	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.8		*	%	0.1	0.5	11/16/06 12:43	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/16/06 0:48	srs/aep
Saturation Percent	USDA No. 60 (2)	38.90		*	%	0.01	0.1	11/16/06 0:48	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.1		*	% Passing	0.1	0.5	11/29/06 10:18	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	67.3		*	% Passing	0.1	0.5	11/21/06 14:28	as
Solids, Percent	CLPSOW390, PART F, D-98	93.9		*	%	0.1	0.5	11/20/06 7:05	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Sulfate		0.01	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Sulfur Total		0.03	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/24/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		72.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		10.0		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 40-60"

ACZ Sample ID: ***L59731-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 5:11	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:17	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 10:15	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:14	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 2:36	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 10:36	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.2	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.0	H	*	mg/Kg	0.2	1	11/29/06 20:00	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 20:00	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.095	H	*	%	0.004	0.02	11/16/06 13:58	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	11/28/06 18:05	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 60-75"

ACZ Sample ID: ***L59731-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 15:09	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	1.11		*	mg/Kg	0.05	0.3	11/18/06 5:32	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	13.40		*	meq/L	0.01	0.05	12/14/06 17:46	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	5.67		*	meq/L	0.02	0.08	12/14/06 17:46	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	130			mg/Kg	20	50	11/29/06 6:02	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.157		*	meq/L	0.008	0.03	12/14/06 17:46	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:48	djt
Sodium Absorption Ratio	Calculation	0.05	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.17		*	meq/L	0.01	0.04	12/14/06 17:46	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 60-75"

ACZ Sample ID: ***L59731-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	4			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	18			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	14			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.9		*	%	0.1	0.5	11/15/06 19:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.162		*	mmhos/cm	0.001	0.01	11/16/06 1:57	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.8		*	%	0.1	0.5	11/16/06 13:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	11/16/06 1:57	srs/aep
Saturation Percent	USDA No. 60 (2)	37.90		*	%	0.01	0.1	11/16/06 1:57	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	92.6		*	% Passing	0.1	0.5	11/29/06 10:31	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.8		*	% Passing	0.1	0.5	11/21/06 14:47	as
Solids, Percent	CLPSOW390, PART F, D-98	93.8		*	%	0.1	0.5	11/20/06 8:19	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.11		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.13		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		72.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		10.0		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3 60-75"

ACZ Sample ID: ***L59731-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 6:09	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:19	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 10:30	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:20	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 3:24	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 10:50	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.4	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	11/29/06 20:01	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 20:01	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.16	H	*	%	0.01	0.05	11/16/06 13:59	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	15	H	*	mg/Kg	1	5	11/28/06 18:06	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3

ACZ Sample ID: ***L59731-14***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 15:25	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	2.30		*	mg/Kg	0.05	0.3	11/18/06 5:36	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	15.30		*	meq/L	0.01	0.05	12/14/06 17:49	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	3.06		*	meq/L	0.02	0.08	12/14/06 17:49	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	80			mg/Kg	20	50	11/29/06 6:06	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.125		*	meq/L	0.008	0.03	12/14/06 17:49	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:52	djt
Sodium Absorption Ratio	Calculation		U			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.07		*	meq/L	0.01	0.04	12/14/06 17:49	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3

ACZ Sample ID: ***L59731-14***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	14			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	33			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	19			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	30.1		*	%	0.1	0.5	11/15/06 21:51	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.156		*	mmhos/cm	0.001	0.01	11/16/06 3:06	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.3		*	%	0.1	0.5	11/16/06 13:27	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/16/06 3:06	srs/aep
Saturation Percent	USDA No. 60 (2)	59.20		*	%	0.01	0.1	11/16/06 3:06	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	98.1		*	% Passing	0.1	0.5	11/29/06 10:44	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	49.5		*	% Passing	0.1	0.5	11/21/06 15:06	as
Solids, Percent	CLPSOW390, PART F, D-98	90.2		*	%	0.1	0.5	11/20/06 9:34	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.23		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.23		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.46		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.23		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		71.3		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		13.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-3

ACZ Sample ID: ***L59731-14***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 7:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:20	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 10:45	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:25	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 4:12	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 11:04	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.0			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.0	H	*	mg/Kg	0.2	1	11/29/06 20:03	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 20:03	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.120		*	%	0.004	0.02	11/16/06 14:00	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	5	H	*	mg/Kg	1	5	11/28/06 18:07	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 0-8"

ACZ Sample ID: ***L59731-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 15:40	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.82		*	meq/L	0.01	0.05	12/14/06 17:53	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.13		*	meq/L	0.02	0.08	12/14/06 17:53	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	150			mg/Kg	20	50	11/29/06 6:10	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.071		*	meq/L	0.008	0.03	12/14/06 17:53	gme
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.05		*	meq/L	0.01	0.04	12/14/06 17:53	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	11/16/06 0:02	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.199		*	mmhos/cm	0.001	0.01	11/16/06 4:15	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.2		*	%	0.1	0.5	11/16/06 13:49	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	11/16/06 4:15	srs/aep
Saturation Percent	USDA No. 60 (2)	40.20		*	%	0.01	0.1	11/16/06 4:15	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	90.9		*	% Passing	0.1	0.5	11/29/06 10:56	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.7		*	% Passing	0.1	0.5	11/21/06 15:25	as
Solids, Percent	CLPSOW390, PART F, D-98	87.6		*	%	0.1	0.5	11/20/06 10:48	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		71.3		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		11.3		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 0-8"

ACZ Sample ID: ***L59731-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 8:07	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:22	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:31	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 5:00	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 11:19	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.3			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.3	H	*	mg/Kg	0.2	1	11/29/06 20:07	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 20:07	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.063	H	*	%	0.002	0.01	11/16/06 14:01	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	22	H	*	mg/Kg	1	5	11/28/06 18:08	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 8-16"

ACZ Sample ID: ***L59731-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 15:56	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.47		*	meq/L	0.01	0.05	12/14/06 17:56	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.02	0.08	12/14/06 17:56	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	150			mg/Kg	20	50	11/29/06 6:14	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.058		*	meq/L	0.008	0.03	12/14/06 17:56	gme
Sodium Absorption Ratio	Calculation	0.05	B			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.03	B	*	meq/L	0.01	0.04	12/14/06 17:56	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	11/16/06 2:14	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.136		*	mmhos/cm	0.001	0.01	11/16/06 5:24	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.9		*	%	0.1	0.5	11/16/06 14:10	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/16/06 5:24	srs/aep
Saturation Percent	USDA No. 60 (2)	39.20		*	%	0.01	0.1	11/16/06 5:24	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	90.8		*	% Passing	0.1	0.5	11/29/06 11:09	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.6		*	% Passing	0.1	0.5	11/21/06 15:44	as
Solids, Percent	CLPSOW390, PART F, D-98	94.9		*	%	0.1	0.5	11/20/06 12:02	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		68.8		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		12.5		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 8-16"

ACZ Sample ID: ***L59731-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 9:05	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:23	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:37	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 5:48	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 11:33	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.3	B		mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	11/29/06 20:09	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/29/06 20:09	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.089	H	*	%	0.002	0.01	11/16/06 14:02	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	21	H	*	mg/Kg	1	5	11/28/06 18:09	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 19-72"

ACZ Sample ID: ***L59731-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 16:42	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	2.25		*	mg/Kg	0.05	0.3	11/18/06 5:40	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	16.90		*	meq/L	0.01	0.05	12/14/06 18:06	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	8.58		*	meq/L	0.02	0.08	12/14/06 18:06	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	90			mg/Kg	20	50	11/29/06 6:19	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.129		*	meq/L	0.008	0.03	12/14/06 18:06	gme
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:56	djt
Sodium Absorption Ratio	Calculation		U			0.03	0.15	12/20/06 15:21	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.08		*	meq/L	0.01	0.04	12/14/06 18:06	gme

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 19-72"

ACZ Sample ID: ***L59731-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	23			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	23			t CaCO3/Kt	1	5	12/20/06 15:21	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.2		*	%	0.1	0.5	11/16/06 4:25	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.195		*	mmhos/cm	0.001	0.01	11/16/06 6:33	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.3		*	%	0.1	0.5	11/16/06 14:32	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/16/06 6:33	srs/aep
Saturation Percent	USDA No. 60 (2)	61.60		*	%	0.01	0.1	11/16/06 6:33	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	97.6		*	% Passing	0.1	0.5	11/29/06 11:22	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	62.8		*	% Passing	0.1	0.5	11/21/06 16:03	as
Solids, Percent	CLPSOW390, PART F, D-98	93.5		*	%	0.1	0.5	11/20/06 13:17	erf/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.01	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.01	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		77.5		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		6.3		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-4 19-72"

ACZ Sample ID: ***L59731-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 10:04	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:25	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 11:00	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:42	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 6:36	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 11:47	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.1			mg/Kg	0.2	1	12/20/06 15:21	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	11/29/06 20:10	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/29/06 20:10	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.68		*	%	0.02	0.1	11/16/06 14:06	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	4	BH	*	mg/Kg	1	5	11/28/06 18:12	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 0-6"

ACZ Sample ID: ***L59731-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 16:58	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.17		*	meq/L	0.01	0.05	12/14/06 18:10	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.02	0.08	12/14/06 18:10	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	140			mg/Kg	20	50	11/29/06 6:23	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.093		*	meq/L	0.008	0.03	12/14/06 18:10	gme
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/20/06 15:22	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.06		*	meq/L	0.01	0.04	12/14/06 18:10	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.5		*	%	0.1	0.5	11/16/06 6:37	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.258		*	mmhos/cm	0.001	0.01	11/16/06 7:42	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.3		*	%	0.1	0.5	11/16/06 14:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/16/06 7:42	srs/aep
Saturation Percent	USDA No. 60 (2)	45.90		*	%	0.01	0.1	11/16/06 7:42	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.8		*	% Passing	0.1	0.5	11/29/06 11:34	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	76.1		*	% Passing	0.1	0.5	11/21/06 16:22	as
Solids, Percent	CLPSOW390, PART F, D-98	90.0		*	%	0.1	0.5	11/20/06 14:31	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		65.0		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		13.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SCL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 0-6"

ACZ Sample ID: ***L59731-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 11:02	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:26	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:48	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 7:24	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 12:01	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.5	B		mg/Kg	0.2	1	12/20/06 15:22	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	11/29/06 20:11	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	11/29/06 20:11	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.115	H	*	%	0.003	0.02	11/16/06 14:07	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	24	H	*	mg/Kg	1	5	11/28/06 18:14	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 6-20"

ACZ Sample ID: ***L59731-19***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 17:13	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.81		*	meq/L	0.01	0.05	12/14/06 18:13	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.15		*	meq/L	0.02	0.08	12/14/06 18:13	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	90			mg/Kg	20	50	11/29/06 6:27	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.064		*	meq/L	0.008	0.03	12/14/06 18:13	gme
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/20/06 15:22	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.05		*	meq/L	0.01	0.04	12/14/06 18:13	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	11/16/06 8:48	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.180		*	mmhos/cm	0.001	0.01	11/16/06 8:51	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.6		*	%	0.1	0.5	11/16/06 15:16	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/16/06 8:51	srs/aep
Saturation Percent	USDA No. 60 (2)	47.00		*	%	0.01	0.1	11/16/06 8:51	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.1		*	% Passing	0.1	0.5	11/29/06 11:47	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	89.1		*	% Passing	0.1	0.5	11/21/06 16:41	as
Solids, Percent	CLPSOW390, PART F, D-98	92.2		*	%	0.1	0.5	11/20/06 15:45	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		65.0		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		13.8		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SCL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 6-20"

ACZ Sample ID: ***L59731-19***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 12:01	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:28	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 16:54	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 8:12	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 12:15	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.5	B		mg/Kg	0.2	1	12/20/06 15:22	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	11/29/06 20:12	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	11/29/06 20:12	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.070	H	*	%	0.002	0.01	11/16/06 14:08	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	24	H	*	mg/Kg	1	5	11/28/06 18:15	jag

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 20-40"

ACZ Sample ID: ***L59731-20***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/14/06 17:29	jlf

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.34		*	meq/L	0.01	0.05	12/14/06 18:16	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.10		*	meq/L	0.02	0.08	12/14/06 18:16	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	80			mg/Kg	20	50	11/29/06 6:31	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.079		*	meq/L	0.008	0.03	12/14/06 18:16	gme
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/20/06 15:22	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.04		*	meq/L	0.01	0.04	12/14/06 18:16	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.0		*	%	0.1	0.5	11/16/06 11:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.121		*	mmhos/cm	0.001	0.01	11/16/06 10:00	srs/aep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.7		*	%	0.1	0.5	11/16/06 15:38	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/16/06 10:00	srs/aep
Saturation Percent	USDA No. 60 (2)	52.20		*	%	0.01	0.1	11/16/06 10:00	srs/aep
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	94.2		*	% Passing	0.1	0.5	11/29/06 12:00	as/rje
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.7		*	% Passing	0.1	0.5	11/21/06 17:00	as
Solids, Percent	CLPSOW390, PART F, D-98	94.3		*	%	0.1	0.5	11/20/06 16:59	erf/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	11/27/06 0:00	brg
Sand		63.8		*	%	0.1	0.5	11/27/06 0:00	brg
Silt		15.0		*	%	0.1	0.5	11/27/06 0:00	brg
Texture Classification		SCL		*				11/27/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 20-40"

ACZ Sample ID: ***L59731-20***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/22/06 12:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:30	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:00	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/15/06 9:00	erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 12:30	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.9	B		mg/Kg	0.2	1	12/20/06 15:22	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.6	H	*	mg/Kg	0.2	1	11/29/06 20:14	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	11/29/06 20:14	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.035	H	*	%	0.002	0.01	11/16/06 14:09	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/28/06 18:16	jag

** Please refer to Qualifier Reports for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources

Project ID:

ACZ Project ID: ***L59731***

Boron, soluble (Hot Water) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216774													
WG216774ICV	ICV	11/18/06 4:16	II061113-6	2		1.938	mg/L	96.9	90	110			
WG216774ICB	ICB	11/18/06 4:20				U	mg/L		-0.03	0.03			
L59459-01DUP	DUP	11/18/06 4:44			.4	.4	mg/L				0	20	
WG216738PBS	PBS	11/18/06 4:48				U	mg/L		-0.15	0.15			
L59731-09DUP	DUP	11/18/06 4:56			.57	.72	mg/L				23.3	20	RC
L59731-10AS	AS	11/18/06 5:16	II061116-2	2.5	.66	3.185	mg/L	101	75	125			
L59731-10ASD	ASD	11/18/06 5:20	II061116-2	2.5	.66	3.202	mg/L	101.7	75	125	0.53	20	

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217041													
WG217041ICV	ICV	12/14/06 16:39	II061113-6	100		97.37	mg/L	97.4	90	110			
WG217041ICB	ICB	12/14/06 16:42				U	mg/L		-0.6	0.6			
L59731-01DUP	DUP	12/14/06 16:59			1.57	.904	meq/L				53.8	20	RC

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216535													
WG216535PBS	PBS	11/14/06 13:00				U	%		-0.3	0.3			
L59731-01DUP	DUP	11/14/06 17:22			1.4	1.3	%				7.4	20	

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216612													
L59731-01DUP	DUP	11/15/06 12:09			.247	.223	nmhos/cm				10.2	20	

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217041													
WG217041ICV	ICV	12/14/06 16:39	II061113-6	100		96.52	mg/L	96.5	90	110			
WG217041ICB	ICB	12/14/06 16:42				U	mg/L		-0.6	0.6			
L59731-01DUP	DUP	12/14/06 16:59			.12	.063	meq/L				61.8	20	RC

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216720													
WG216720LCSS	LCSS	11/16/06 8:00	PCN20880	100		91.19	%						
L59731-20DUP	DUP	11/16/06 15:59			2.7	2.61	%				3.4	20	

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Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217339													
WG217339ICV	ICV	11/29/06 19:33	WI060906-3	2.416		2.352	mg/L	97.4	90	110			
WG217339ICB	ICB	11/29/06 19:34				.027	mg/L		-0.06	0.06			
WG217339LFB	LFB	11/29/06 19:38	WI060906-4	2		2.055	mg/L	102.8	90	110			
WG217122PBS	PBS	11/29/06 19:39				.95	mg/Kg		-0.6	0.6			N1
L59731-01DUP	DUP	11/29/06 19:42			1.1	1.1	mg/Kg				0	20	RA
L59731-02AS	AS	11/29/06 19:44	WI060906-4	20	1.1	21.28	mg/Kg	100.9	75	125			

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217339													
WG217339ICV	ICV	11/29/06 19:33	WI060906-3	.609		.644	mg/L	105.7	90	110			
WG217339ICB	ICB	11/29/06 19:34				U	mg/L		-0.03	0.03			
WG217339LFB	LFB	11/29/06 19:38	WI060906-4	1		1.029	mg/L	102.9	90	110			
WG217122PBS	PBS	11/29/06 19:39				.78	mg/Kg		-0.3	0.3			N1
L59731-01DUP	DUP	11/29/06 19:42			U	U	mg/Kg				0	20	RA
L59731-02AS	AS	11/29/06 19:44	WI060906-4	10	U	9.81	mg/Kg	98.1	75	125			

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216678													
WG216503ICV	ICV	11/16/06 13:02	WI061027-1	4		3.9	mg/L	97.5	90	110			
WG216503ICB	ICB	11/16/06 13:03				U	mg/L		-0.3	0.3			
WG216503PBS	PBS	11/16/06 13:04				.0039	%		-0.006	0.006			
WG216503LFB	LFB	11/16/06 13:05	WI061027-5	2.5		2.91	%	116.4	85	115			N1
L59731-01MS	MS	11/16/06 13:08	5XPTSTKN	.0535	.15	.238	%	164.5	75	125			M1
L59731-02DUP	DUP	11/16/06 13:10			.3	.307	%				2.3	20	
WG216678ICV1	ICV	11/16/06 13:46	WI061027-1	4		3.62	mg/L	90.5	90	110			
WG216678ICB1	ICB	11/16/06 13:47				U	mg/L		-0.3	0.3			
WG216678ICV2	ICV	11/16/06 13:50	WI061027-1	4		3.67	mg/L	91.8	90	110			
WG216678ICB2	ICB	11/16/06 13:51				U	mg/L		-0.3	0.3			

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217118													
L59731-01DUP	DUP	11/27/06 12:45			16.3	16.3	%				0	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217118													
L59731-01DUP	DUP	11/27/06 12:45			72.5	72.5	%				0	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217118													
L59731-01DUP	DUP	11/27/06 12:45			11.3	11.3	%				0	20	

Carbon Resources

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ACZ Project ID: ***L59731***

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216612													
L59731-01DUP	DUP	11/15/06 12:09			7.9	7.48	units				5.5	20	

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217261													
WG217261ICV	ICV	11/28/06 17:43	SCN000224	.65228		.686	mg/L	105.2	90	110			
WG217261ICB	ICB	11/28/06 17:45				U	mg/L		-0.03	0.03			
WG217261LFB	LFB	11/28/06 17:46	WI061125-2	.5		.515	mg/Kg	103	85	115			
WG216998PBS	PBS	11/28/06 17:47				7.2	mg/Kg		-3	3			N1
L59731-01AS	AS	11/28/06 17:49	WI061125-2	50	28	79.1	mg/Kg	102.2	75	125			
L59731-01DUP	DUP	11/28/06 17:50			28	27.4	mg/Kg				2.2	20	

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217217													
WG217217ICV	ICV	11/29/06 4:17	II061113-6	20		20.17	mg/L	100.9	90	110			
WG217217ICB	ICB	11/29/06 4:21				U	mg/L		-0.9	0.9			
WG216998PBS	PBS	11/29/06 4:37				U	mg/L		-60	60			
L59731-01DUP	DUP	11/29/06 4:46			140	140	mg/L				0	20	
L59731-02AS	AS	11/29/06 4:58	II061116-2	4973.4095	80	5197	mg/L	102.9	75	125			
L59731-02ASD	ASD	11/29/06 5:02	II061116-2	4973.4095	80	5305	mg/L	105.1	75	125	2.06	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217041													
WG217041ICV	ICV	12/14/06 16:39	II061113-6	20		19.94	mg/L	99.7	90	110			
WG217041ICB	ICB	12/14/06 16:42				U	mg/L		-0.9	0.9			
L59731-01DUP	DUP	12/14/06 16:59			.324	.1741	meq/L				60.2	20	RC

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216612													
L59731-01DUP	DUP	11/15/06 12:09			34.6	36.33	%				4.9	20	

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Selenium, soluble (Hot Water) SM3500-Se.C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217220													
WG217220ICV	ICV	11/30/06 10:30	II061127-5	.025		.0272	mg/L	108.8	90	110			
WG217220ICB	ICB	11/30/06 10:33				U	mg/L		-0.003	0.003			
WG217223													
L59732-20AS	AS	11/30/06 14:14	II061113-3	.1	U	.097	mg/Kg	97	85	115			
L59732-20ASD	ASD	11/30/06 14:25	II061113-3	.1	U	.0985	mg/Kg	98.5	85	115	1.53	20	
WG216738PBS	PBS	11/30/06 15:18				U	mg/Kg		-0.015	0.015			
L59731-09DUP	DUP	11/30/06 15:25			U	U	mg/Kg				0	20	RA
L59731-10AS	AS	11/30/06 15:33	II061113-3	.1	U	.0961	mg/Kg	96.1	85	115			
L59731-10ASD	ASD	11/30/06 15:36	II061113-3	.1	U	.0958	mg/Kg	95.8	85	115	0.31	20	

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217041													
WG217041ICV	ICV	12/14/06 16:39	II061113-6	100		99.89	mg/L	99.9	90	110			
WG217041ICB	ICB	12/14/06 16:42				U	mg/L		-0.9	0.9			
L59731-01DUP	DUP	12/14/06 16:59			.22	.161	meq/L				30.7	20	RC

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216793													
WG216793PBS	PBS	11/19/06 15:00				U	%		99.9	100.1			
L59731-01DUP	DUP	11/19/06 17:28			88.1	88.45	%				0.4	20	

Sulfur Organic Residual M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

Sulfur Pyritic Sulfide M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			U	U	%				0	20	RA

Sulfur Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

Sulfur Total M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
WG217075PBS	PBS	11/24/06 11:00				U	%		-0.03	0.03			
WG217075LCSS	LCSS	11/24/06 13:23	PCN25383	4.24		4.3	%		80	120			
L59732-20DUP	DUP	11/25/06 18:00			.04	.04	%				0	20	RA

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Total Sulfur Minus Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

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ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-01	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-02	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-03	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-04	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-05	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-06	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-07	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-08	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-09	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-10	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-11	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-12	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-13	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-14	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-15	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-16	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-17	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217041	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Suifur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-18	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-19	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59731***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59731-20	WG217041	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217339	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216678	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	N1	See Case Narrative.
	WG217261	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Certification Qualifiers

Carbon Resources ACZ Project ID: ***L59731***

Metals Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Selenium, soluble (Hot Water)	SM3500-Se.C

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Sulfur Forms	M600/2-78-054 3.2.4
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

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Sample Receipt

Carbon Resources

ACZ Project ID: L59731
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

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Sample Receipt

Carbon Resources

ACZ Project ID: L59731
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59731-01	D-1 0-6"									X		
L59731-02	D-1 6-16"									X		
L59731-03	D-1 16-25"									X		
L59731-04	D-1 25-40"									X		
L59731-05	D-1 40-65"									X		
L59731-06	D-1 65-90"									X		
L59731-07	D-2 0-6"									X		
L59731-08	D-2 6-24"									X		
L59731-09	D-3 0-10"									X		
L59731-10	D-3 10-20"									X		
L59731-11	D-3 20-40"									X		
L59731-12	D-3 40-60"									X		
L59731-13	D-3 60-75"									X		
L59731-14	D-3									X		
L59731-15	D-4 0-8"									X		
L59731-16	D-4 8-16"									X		
L59731-17	D-4 19-72"									X		
L59731-18	D-5 0-6"									X		
L59731-19	D-5 6-20"									X		
L59731-20	D-5 20-40"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59731

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

LBG 10-26-06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

Very Fine Sand

analyst: as
date: 12-7-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59731-01	236.40	75.6	40.0	4.5	**8.5**
L59731-02	210.40	95.4	40.0	5.1	**12.2**
L59731-03	368.20	70.0	40.0	4.6	**8.1**
L59731-04	268.60	88.7	40.0	5.1	**11.4**
L59731-05	222.00	78.5	40.0	4.3	**8.5**
L59731-06	242.80	67.1	40.0	3.7	**6.2**
L59731-07	336.60	68.8	40.0	5.0	**8.6**
L59731-08	314.90	72.6	40.0	4.9	**8.9**
L59731-09	270.98	81.1	40.0	3.8	**7.6**
L59731-10	318.20	75.2	40.0	4.0	**7.4**
L59731-11	342.70	81.7	40.0	4.4	**8.9**
L59731-12	387.20	67.3	40.0	4.1	**6.9**
L59731-13	309.80	79.8	40.0	3.7	**7.4**
L59731-14	263.00	49.5	40.0	1.5	**1.9**
L59731-15	320.50	88.7	40.0	4.1	**9.1**
L59731-16	424.10	84.6	40.0	4.4	**9.2**
L59731-17	480.40	62.8	40.0	1.5	**2.4**
L59731-18	228.40	76.1	40.0	3.3	**6.2**
L59731-19	296.80	89.1	40.0	3.1	**6.9**
L59731-20	325.70	84.7	40.0	2.7	**5.8**
dup L59731-01	236.40	75.6	40.0	4.2	**8.0**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG216879

-sieve53 WG217297

-texture WG217118

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Greg Hunt, Bruce Chesler

Project ID:
ACZ Project ID: L59732

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59732. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59732. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048: (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59732

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 19 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59732. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 40-60"

ACZ Sample ID: ***L59732-01***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/16/06 18:52	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.33		*	meq/L	0.01	0.05	11/29/06 20:24	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.02	0.08	11/29/06 20:24	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	80		*	mg/Kg	20	50	12/04/06 14:12	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.076		*	meq/L	0.008	0.03	11/29/06 20:24	msh
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:11	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.30		*	meq/L	0.01	0.04	11/29/06 20:24	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.6		*	%	0.1	0.5	11/21/06 12:12	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.249		*	mmhos/cm	0.001	0.01	11/22/06 14:00	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.3		*	%	0.1	0.5	12/07/06 12:28	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.7		*	units	0.1	0.1	11/22/06 14:00	srs
Saturation Percent	USDA No. 60 (2)	52.30		*	%	0.01	0.1	11/22/06 14:00	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	86.9		*	% Passing	0.1	0.5	12/08/06 8:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.4		*	% Passing	0.1	0.5	11/22/06 10:00	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	91.6		*	%	0.1	0.5	11/28/06 13:03	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		37.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		41.3		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-5 40-60"

ACZ Sample ID: ***L59732-01***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 11:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:31	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:06	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:00	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 12:44	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.9			mg/Kg	0.2	1	12/21/06 10:11	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	8.6	H	*	mg/Kg	0.2	1	11/30/06 21:43	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	11/30/06 21:43	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.088	H	*	%	0.005	0.02	12/18/06 15:16	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	18	H	*	mg/Kg	1	5	11/30/06 19:50	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 0-7"

ACZ Sample ID: ***L59732-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/16/06 21:33	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.48		*	meq/L	0.01	0.05	11/29/06 20:32	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.38		*	meq/L	0.02	0.08	11/29/06 20:32	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	240		*	mg/Kg	20	50	12/04/06 14:18	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.451		*	meq/L	0.008	0.03	11/29/06 20:32	msh
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/21/06 10:12	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.14		*	meq/L	0.01	0.04	11/29/06 20:32	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.6		*	%	0.1	0.5	11/21/06 12:36	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.275		*	mmhos/cm	0.001	0.01	11/22/06 19:03	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.7		*	%	0.1	0.5	12/07/06 12:42	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/22/06 19:03	srs
Saturation Percent	USDA No. 60 (2)	52.10		*	%	0.01	0.1	11/22/06 19:03	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	87.7		*	% Passing	0.1	0.5	12/08/06 8:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	87.6		*	% Passing	0.1	0.5	11/22/06 10:23	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	87.9		*	%	0.1	0.5	11/28/06 14:07	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		30.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		47.5		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 0-7"

ACZ Sample ID: ***L59732-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 11:36	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:33	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:18	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:12	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 12:58	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	9.0			mg/Kg	0.2	1	12/21/06 10:12	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	9.8	H	*	mg/Kg	0.2	1	11/30/06 21:46	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:46	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.093	H	*	%	0.008	0.04	12/18/06 15:18	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	15	H	*	mg/Kg	1	5	11/30/06 19:52	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 24-48"

ACZ Sample ID: ***L59732-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 0:14	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.21		*	meq/L	0.01	0.05	11/29/06 20:36	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.76		*	meq/L	0.02	0.08	11/29/06 20:36	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	70		*	mg/Kg	20	50	12/04/06 14:39	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.094		*	meq/L	0.008	0.03	11/29/06 20:36	msh
Sodium Absorption Ratio	Calculation	0.21				0.03	0.15	12/21/06 10:12	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.30		*	meq/L	0.01	0.04	11/29/06 20:36	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	11/21/06 12:48	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.451		*	mmhos/cm	0.001	0.01	11/22/06 21:34	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.2		*	%	0.1	0.5	12/07/06 12:57	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/22/06 21:34	srs
Saturation Percent	USDA No. 60 (2)	54.40		*	%	0.01	0.1	11/22/06 21:34	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	88.7		*	% Passing	0.1	0.5	12/08/06 9:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	72.4		*	% Passing	0.1	0.5	11/22/06 10:46	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	94.7		*	%	0.1	0.5	11/28/06 15:11	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		40.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		40.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL/L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 24-48"

ACZ Sample ID: ***L59732-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 11:48	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:34	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:24	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:18	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 13:12	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.3			mg/Kg	0.2	1	12/21/06 10:12	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.1	H	*	mg/Kg	0.2	1	11/30/06 21:48	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:48	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.067	H	*	%	0.003	0.02	12/18/06 15:20	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	12	H	*	mg/Kg	1	5	11/30/06 19:55	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 48-72"

ACZ Sample ID: ***L59732-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 1:34	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.96		*	meq/L	0.01	0.05	11/29/06 20:40	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.69		*	meq/L	0.02	0.08	11/29/06 20:40	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	100		*	mg/Kg	20	50	12/04/06 14:43	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.086		*	meq/L	0.008	0.03	11/29/06 20:40	msh
Sodium Absorption Ratio	Calculation	0.20				0.03	0.15	12/21/06 10:12	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.28		*	meq/L	0.01	0.04	11/29/06 20:40	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	11/21/06 13:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.452		*	mmhos/cm	0.001	0.01	11/23/06 0:06	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.3		*	%	0.1	0.5	12/07/06 13:11	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	11/23/06 0:06	srs
Saturation Percent	USDA No. 60 (2)	51.00		*	%	0.01	0.1	11/23/06 0:06	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.1		*	% Passing	0.1	0.5	12/08/06 9:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	61.4		*	% Passing	0.1	0.5	11/22/06 11:10	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	93.0		*	%	0.1	0.5	11/28/06 16:15	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		37.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		42.5		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-6 48-72"

ACZ Sample ID: ***L59732-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 12:00	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:36	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:30	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:25	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 13:26	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.3			mg/Kg	0.2	1	12/21/06 10:12	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	3.1	H	*	mg/Kg	0.2	1	11/30/06 21:49	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:49	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.083	H	*	%	0.003	0.02	12/18/06 15:21	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	10	H	*	mg/Kg	1	5	11/30/06 19:56	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 0-6"

ACZ Sample ID: ***L59732-05***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 2:55	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	4.92		*	meq/L	0.01	0.05	11/29/06 20:44	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.72		*	meq/L	0.02	0.08	11/29/06 20:44	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	250		*	mg/Kg	20	50	12/04/06 14:46	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.672		*	meq/L	0.008	0.03	11/29/06 20:44	msh
Sodium Absorption Ratio	Calculation	0.09	B			0.03	0.15	12/21/06 10:12	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.16		*	meq/L	0.01	0.04	11/29/06 20:44	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	11/21/06 13:12	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.689		*	mmhos/cm	0.001	0.01	11/23/06 2:37	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.7		*	%	0.1	0.5	12/07/06 13:25	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.2		*	units	0.1	0.1	11/23/06 2:37	srs
Saturation Percent	USDA No. 60 (2)	49.60		*	%	0.01	0.1	11/23/06 2:37	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	90.3		*	% Passing	0.1	0.5	12/08/06 10:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	68.2		*	% Passing	0.1	0.5	11/22/06 11:33	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	85.8		*	%	0.1	0.5	11/28/06 17:18	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		30.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		50.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 0-6"

ACZ Sample ID: ***L59732-05***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 12:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:38	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:36	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:31	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 13:41	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.9			mg/Kg	0.2	1	12/21/06 10:12	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.9	H	*	mg/Kg	0.2	1	11/30/06 21:51	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 21:51	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.088	H	*	%	0.005	0.02	12/18/06 15:22	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	7	H	*	mg/Kg	1	5	11/30/06 19:57	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 6-20"

ACZ Sample ID: ***L59732-06***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 4:15	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.98		*	meq/L	0.01	0.05	11/29/06 20:48	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.56		*	meq/L	0.02	0.08	11/29/06 20:48	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	130		*	mg/Kg	20	50	12/04/06 14:50	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.149		*	meq/L	0.008	0.03	11/29/06 20:48	msh
Sodium Absorption Ratio	Calculation	0.12	B			0.03	0.15	12/21/06 10:12	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.17		*	meq/L	0.01	0.04	11/29/06 20:48	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.1		*	%	0.1	0.5	11/21/06 13:24	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.462		*	mmhos/cm	0.001	0.01	11/23/06 5:09	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.3		*	%	0.1	0.5	12/07/06 13:39	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/23/06 5:09	srs
Saturation Percent	USDA No. 60 (2)	47.30		*	%	0.01	0.1	11/23/06 5:09	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	92.9		*	% Passing	0.1	0.5	12/08/06 10:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	53.9		*	% Passing	0.1	0.5	11/22/06 11:56	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	87.4		*	%	0.1	0.5	11/28/06 18:22	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		30.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		47.5		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 6-20"

ACZ Sample ID: ***L59732-06***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 12:24	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:39	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:42	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:37	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 13:55	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.4	B		mg/Kg	0.2	1	12/21/06 10:12	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	11/30/06 21:52	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:52	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.057	H	*	%	0.003	0.01	12/18/06 15:24	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	10	H	*	mg/Kg	1	5	11/30/06 19:58	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 20-42"

ACZ Sample ID: ***L59732-07***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 8:17	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.93		*	meq/L	0.01	0.05	11/29/06 21:00	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.32		*	meq/L	0.02	0.08	11/29/06 21:00	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	90		*	mg/Kg	20	50	12/04/06 14:53	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.128		*	meq/L	0.008	0.03	11/29/06 21:00	msh
Sodium Absorption Ratio	Calculation	0.12	B			0.03	0.15	12/21/06 10:13	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.10		*	meq/L	0.01	0.04	11/29/06 21:00	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.9		*	%	0.1	0.5	11/21/06 13:36	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.203		*	mmhos/cm	0.001	0.01	11/23/06 7:41	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.3		*	%	0.1	0.5	12/07/06 13:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	11/23/06 7:41	srs
Saturation Percent	USDA No. 60 (2)	43.30		*	%	0.01	0.1	11/23/06 7:41	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.5		*	% Passing	0.1	0.5	12/08/06 11:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	67.7		*	% Passing	0.1	0.5	11/22/06 12:20	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	92.5		*	%	0.1	0.5	11/28/06 19:26	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		32.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		46.3		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SiL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 20-42"

ACZ Sample ID: ***L59732-07***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 12:36	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:41	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:48	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:44	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 14:09	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.5	B		mg/Kg	0.2	1	12/21/06 10:13	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	11/30/06 21:57	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	11/30/06 21:57	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.045	H	*	%	0.003	0.02	12/18/06 15:25	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	8	H	*	mg/Kg	1	5	11/30/06 19:59	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 42-58"

ACZ Sample ID: ***L59732-08***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 9:38	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.63		*	meq/L	0.01	0.05	11/29/06 21:04	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.42		*	meq/L	0.02	0.08	11/29/06 21:04	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	110		*	mg/Kg	20	50	12/04/06 14:56	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.086		*	meq/L	0.008	0.03	11/29/06 21:04	msh
Sodium Absorption Ratio	Calculation	0.22				0.03	0.15	12/21/06 10:13	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.23		*	meq/L	0.01	0.04	11/29/06 21:04	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.2		*	%	0.1	0.5	11/21/06 13:48	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.301		*	mmhos/cm	0.001	0.01	11/23/06 10:12	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.8		*	%	0.1	0.5	12/07/06 14:08	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	11/23/06 10:12	srs
Saturation Percent	USDA No. 60 (2)	54.30		*	%	0.01	0.1	11/23/06 10:12	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	90.9		*	% Passing	0.1	0.5	12/08/06 11:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	70.3		*	% Passing	0.1	0.5	11/22/06 12:43	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	93.0		*	%	0.1	0.5	11/28/06 20:30	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		32.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		45.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		Si/C/L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 42-58"

ACZ Sample ID: ***L59732-08***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 12:48	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:42	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 17:54	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:50	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 14:23	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/21/06 10:13	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/30/06 21:58	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:58	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.068	H	*	%	0.003	0.02	12/18/06 15:26	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	8	H	*	mg/Kg	1	5	11/30/06 20:02	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 58-70"

ACZ Sample ID: ***L59732-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 10:58	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.35		*	meq/L	0.01	0.05	11/29/06 21:08	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.83		*	meq/L	0.02	0.08	11/29/06 21:08	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	140		*	mg/Kg	20	50	12/04/06 15:00	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.106		*	meq/L	0.008	0.03	11/29/06 21:08	msh
Sodium Absorption Ratio	Calculation	0.13	B			0.03	0.15	12/21/06 10:13	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.20		*	meq/L	0.01	0.04	11/29/06 21:08	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.8		*	%	0.1	0.5	11/21/06 14:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.477		*	mmhos/cm	0.001	0.01	11/23/06 12:44	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/07/06 14:22	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.2		*	units	0.1	0.1	11/23/06 12:44	srs
Saturation Percent	USDA No. 60 (2)	36.50		*	%	0.01	0.1	11/23/06 12:44	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	76.4		*	% Passing	0.1	0.5	12/08/06 12:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	94.6		*	% Passing	0.1	0.5	11/22/06 13:06	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	95.7		*	%	0.1	0.5	11/28/06 21:33	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		52.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		35.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-7 58-70"

ACZ Sample ID: ***L59732-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 13:00	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:44	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:00	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 19:56	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 14:38	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/21/06 10:13	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	BH	*	mg/Kg	0.2	1	11/30/06 21:59	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 21:59	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.065	H	*	%	0.004	0.02	12/18/06 15:29	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	16	H	*	mg/Kg	1	5	11/30/06 20:04	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 0-6"

ACZ Sample ID: ***L59732-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/17/06 12:19	pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.91		*	meq/L	0.01	0.05	11/29/06 21:12	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.79		*	meq/L	0.02	0.08	11/29/06 21:12	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	360		*	mg/Kg	20	50	12/04/06 15:03	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	1.110		*	meq/L	0.008	0.03	11/29/06 21:12	msh
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/21/06 10:13	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.13		*	meq/L	0.01	0.04	11/29/06 21:12	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.5		*	%	0.1	0.5	11/21/06 14:12	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.587		*	mmhos/cm	0.001	0.01	11/23/06 15:15	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.2		*	%	0.1	0.5	12/07/06 14:37	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	11/23/06 15:15	srs
Saturation Percent	USDA No. 60 (2)	64.60		*	%	0.01	0.1	11/23/06 15:15	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	79.7		*	% Passing	0.1	0.5	12/08/06 12:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	92.1		*	% Passing	0.1	0.5	11/22/06 13:30	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	80.4		*	%	0.1	0.5	11/28/06 22:37	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		8.8		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		52.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		38.8		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 0-6"

ACZ Sample ID: ***L59732-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 13:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:45	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:06	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:03	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 14:52	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.1			mg/Kg	0.2	1	12/21/06 10:13	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.1	H	*	mg/Kg	0.2	1	11/30/06 22:00	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 22:00	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.22	H	*	%	0.01	0.06	12/18/06 15:30	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	25	H	*	mg/Kg	1	5	11/30/06 20:19	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 6-13"

ACZ Sample ID: ***L59732-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 18:39	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.13		*	meq/L	0.01	0.05	11/29/06 21:16	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.28		*	meq/L	0.02	0.08	11/29/06 21:16	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	280		*	mg/Kg	20	50	12/04/06 15:07	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.420		*	meq/L	0.008	0.03	11/29/06 21:16	msh
Sodium Absorption Ratio	Calculation	0.14	B			0.03	0.15	12/21/06 10:13	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.01	0.04	11/29/06 21:16	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.1		*	%	0.1	0.5	11/21/06 14:24	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.275		*	mmhos/cm	0.001	0.01	11/23/06 17:47	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/07/06 14:51	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/23/06 17:47	srs
Saturation Percent	USDA No. 60 (2)	41.50		*	%	0.01	0.1	11/23/06 17:47	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	78.9		*	% Passing	0.1	0.5	12/08/06 13:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	90.5		*	% Passing	0.1	0.5	11/22/06 13:53	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	84.9		*	%	0.1	0.5	11/28/06 23:41	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		10.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		55.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		35.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 6-13"

ACZ Sample ID: ***L59732-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 13:24	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:47	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:12	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:09	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 15:06	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.7			mg/Kg	0.2	1	12/21/06 10:13	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.7	H	*	mg/Kg	0.2	1	11/30/06 22:02	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 22:02	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.153	H	*	%	0.004	0.02	12/08/06 18:21	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/30/06 20:06	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 13-20"

ACZ Sample ID: ***L59732-12***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 19:38	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.56		*	meq/L	0.01	0.05	11/29/06 21:20	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.23		*	meq/L	0.02	0.08	11/29/06 21:20	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	190		*	mg/Kg	20	50	12/04/06 15:10	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.235		*	meq/L	0.008	0.03	11/29/06 21:20	msh
Sodium Absorption Ratio	Calculation	0.17				0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.11		*	meq/L	0.01	0.04	11/29/06 21:20	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	11/21/06 14:36	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.164		*	mmhos/cm	0.001	0.01	11/23/06 20:19	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/07/06 15:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	11/23/06 20:19	srs
Saturation Percent	USDA No. 60 (2)	38.80		*	%	0.01	0.1	11/23/06 20:19	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	75.8		*	% Passing	0.1	0.5	12/08/06 13:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	96.9		*	% Passing	0.1	0.5	11/22/06 14:16	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	96.5		*	%	0.1	0.5	11/29/06 0:45	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		55.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		32.5		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 13-20"

ACZ Sample ID: ***L59732-12***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 13:36	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:49	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:18	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:15	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 15:20	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.8	B		mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	BH	*	mg/Kg	0.2	1	11/30/06 22:03	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 22:03	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.054	H	*	%	0.006	0.03	12/08/06 18:25	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/30/06 20:07	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 20-48"

ACZ Sample ID: ***L59732-13***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 20:38	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.60		*	meq/L	0.01	0.05	11/29/06 21:24	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.30		*	meq/L	0.02	0.08	11/29/06 21:24	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	200		*	mg/Kg	20	50	12/04/06 15:21	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.220		*	meq/L	0.008	0.03	11/29/06 21:24	msh
Sodium Absorption Ratio	Calculation	0.17				0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.01	0.04	11/29/06 21:24	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.3	B	*	%	0.1	0.5	11/21/06 14:48	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.184		*	mmhos/cm	0.001	0.01	11/23/06 22:50	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/07/06 15:19	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/23/06 22:50	srs
Saturation Percent	USDA No. 60 (2)	38.00		*	%	0.01	0.1	11/23/06 22:50	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	76.1		*	% Passing	0.1	0.5	12/08/06 14:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	92.6		*	% Passing	0.1	0.5	11/22/06 14:40	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	95.7		*	%	0.1	0.5	11/29/06 1:48	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		53.8		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		30.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-8 20-48"

ACZ Sample ID: ***L59732-13***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 13:48	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:50	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:24	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:22	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 15:34	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	BH	*	mg/Kg	0.2	1	11/30/06 22:04	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 22:04	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.029	H	*	%	0.001	0.007	12/08/06 18:02	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	11/30/06 20:08	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 0-6"

ACZ Sample ID: ***L59732-14***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 21:08	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.48		*	meq/L	0.01	0.05	11/29/06 21:28	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.39		*	meq/L	0.02	0.08	11/29/06 21:28	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	170		*	mg/Kg	20	50	12/04/06 15:24	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.199		*	meq/L	0.008	0.03	11/29/06 21:28	msh
Sodium Absorption Ratio	Calculation	0.09	B			0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.13		*	meq/L	0.01	0.04	11/29/06 21:28	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.0		*	%	0.1	0.5	11/21/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.445		*	mmhos/cm	0.001	0.01	11/24/06 1:22	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.0		*	%	0.1	0.5	12/07/06 15:34	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/24/06 1:22	srs
Saturation Percent	USDA No. 60 (2)	51.60		*	%	0.01	0.1	11/24/06 1:22	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	85.6		*	% Passing	0.1	0.5	12/08/06 14:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	75.6		*	% Passing	0.1	0.5	11/22/06 15:03	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	87.3		*	%	0.1	0.5	11/29/06 2:52	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		47.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		36.3		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 0-6"

ACZ Sample ID: ***L59732-14***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 14:00	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:52	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:30	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:28	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 15:49	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.0			mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.8	H	*	mg/Kg	0.2	1	11/30/06 22:05	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 22:05	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.119	H	*	%	0.005	0.03	12/08/06 18:27	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 20:09	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 6-12"

ACZ Sample ID: ***L59732-15***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 21:37	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.25		*	meq/L	0.01	0.05	11/29/06 21:32	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.54		*	meq/L	0.02	0.08	11/29/06 21:32	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	120		*	mg/Kg	20	50	12/04/06 15:28	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.087		*	meq/L	0.008	0.03	11/29/06 21:32	msh
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.01	0.04	11/29/06 21:32	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.2		*	%	0.1	0.5	11/21/06 15:12	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.466		*	mmhos/cm	0.001	0.01	11/24/06 3:53	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.9		*	%	0.1	0.5	12/07/06 15:48	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.7		*	units	0.1	0.1	11/24/06 3:53	srs
Saturation Percent	USDA No. 60 (2)	47.60		*	%	0.01	0.1	11/24/06 3:53	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.6		*	% Passing	0.1	0.5	12/08/06 15:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.3		*	% Passing	0.1	0.5	11/22/06 15:26	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	88.7		*	%	0.1	0.5	11/29/06 3:56	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		50.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		32.5		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 6-12"

ACZ Sample ID: ***L59732-15***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 14:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:53	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:36	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:34	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 16:03	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2		U		mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	BH	*	mg/Kg	0.2	1	11/30/06 22:07	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 22:07	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.118	H	*	%	0.007	0.03	12/08/06 18:28	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 20:11	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 12-30"

ACZ Sample ID: ***L59732-16***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/13/06 16:48	jag/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	2.31		*	mg/Kg	0.05	0.3	11/18/06 5:44	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	1.33		*	meq/L	0.01	0.05	11/29/06 21:36	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.28		*	meq/L	0.02	0.08	11/29/06 21:36	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	80		*	mg/Kg	20	50	12/04/06 15:31	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.099		*	meq/L	0.008	0.03	11/29/06 21:36	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 13:59	djt
Sodium Absorption Ratio	Calculation	0.10	B			0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.09		*	meq/L	0.01	0.04	11/29/06 21:36	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 12-30"

ACZ Sample ID: ***L59732-16***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	15			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	42			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	27			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	29.6		*	%	0.1	0.5	11/21/06 15:24	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.265		*	mmhos/cm	0.001	0.01	11/24/06 6:25	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	4.2		*	%	0.1	0.5	12/07/06 16:02	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/24/06 6:25	srs
Saturation Percent	USDA No. 60 (2)	37.50		*	%	0.01	0.1	11/24/06 6:25	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	94.4		*	% Passing	0.1	0.5	12/08/06 15:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	59.8		*	% Passing	0.1	0.5	11/22/06 15:50	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	90.9		*	%	0.1	0.5	11/29/06 5:00	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.18		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.07	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.23		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.48		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.25		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		68.8		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		18.8		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		SL		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 12-30"

ACZ Sample ID: ***L59732-16***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 14:24	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:55	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 11:15	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:42	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:41	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 16:17	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.7	B		mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	BH	*	mg/Kg	0.2	1	11/30/06 22:08	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 22:08	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1.1	H	*	%	0.1	0.5	12/14/06 15:21	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	3	BH	*	mg/Kg	1	5	11/30/06 20:12	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 30-68"

ACZ Sample ID: ***L59732-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/13/06 17:23	jag/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	2.16		*	mg/Kg	0.05	0.3	11/18/06 5:48	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	20.90		*	meq/L	0.01	0.05	11/29/06 21:48	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	11.00		*	meq/L	0.02	0.08	11/29/06 21:48	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	100		*	mg/Kg	20	50	12/04/06 15:34	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.159		*	meq/L	0.008	0.03	11/29/06 21:48	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 14:03	djt
Sodium Absorption Ratio	Calculation	0.03	B			0.03	0.15	12/21/06 10:14	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.12		*	meq/L	0.01	0.04	11/29/06 21:48	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 30-68"

ACZ Sample ID: ***L59732-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	19			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	54			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	35			t CaCO3/Kt	1	5	12/21/06 10:14	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	24.4		*	%	0.1	0.5	11/21/06 15:36	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	2.110		*	mmhos/cm	0.001	0.01	11/24/06 8:56	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	5.4		*	%	0.1	0.5	12/07/06 16:17	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/24/06 8:56	srs
Saturation Percent	USDA No. 60 (2)	55.20		*	%	0.01	0.1	11/24/06 8:56	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	97.4		*	% Passing	0.1	0.5	12/08/06 16:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	51.7		*	% Passing	0.1	0.5	11/22/06 16:13	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	89.4		*	%	0.1	0.5	11/29/06 6:03	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.23		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.43		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.62		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.19		*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		57.5		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		25.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 30-68"

ACZ Sample ID: ***L59732-17***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 14:36	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:57	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 11:30	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:48	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:47	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 16:31	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.8	B		mg/Kg	0.2	1	12/21/06 10:14	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	BH	*	mg/Kg	0.2	1	11/30/06 22:13	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	11/30/06 22:13	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.49	H	*	%	0.02	0.08	12/14/06 15:23	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	2	BH	*	mg/Kg	1	5	11/30/06 20:16	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 80-95"

ACZ Sample ID: ***L59732-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 22:07	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.91		*	mg/Kg	0.05	0.3	11/18/06 6:01	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	2.34		*	meq/L	0.01	0.05	11/29/06 21:52	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.29		*	meq/L	0.02	0.08	11/29/06 21:52	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	120		*	mg/Kg	20	50	12/04/06 15:38	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.149		*	meq/L	0.008	0.03	11/29/06 21:52	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 14:07	djt
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/21/06 10:15	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.09		*	meq/L	0.01	0.04	11/29/06 21:52	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 80-95"

ACZ Sample ID: ***L59732-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	2			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	17			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	15			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	4.3		*	%	0.1	0.5	11/21/06 15:48	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.346		*	mmhos/cm	0.001	0.01	11/24/06 11:28	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.7		*	%	0.1	0.5	12/07/06 16:31	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	11/24/06 11:28	srs
Saturation Percent	USDA No. 60 (2)	49.00		*	%	0.01	0.1	11/24/06 11:28	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	85.5		*	% Passing	0.1	0.5	12/08/06 16:30	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	80.3		*	% Passing	0.1	0.5	11/22/06 16:36	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	90.6		*	%	0.1	0.5	11/29/06 7:07	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.03	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.03	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.06	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.03	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		53.8		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		31.3		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 80-95"

ACZ Sample ID: ***L59732-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 14:48	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:58	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 11:45	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 18:54	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 20:53	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 16:46	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.6	B		mg/Kg	0.2	1	12/21/06 10:15	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.4	H	*	mg/Kg	0.2	1	11/30/06 22:14	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	11/30/06 22:14	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.180	H	*	%	0.007	0.04	12/08/06 18:30	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	9	H	*	mg/Kg	1	5	11/30/06 20:17	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 95-115"

ACZ Sample ID: ***L59732-20***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/06/06 23:36	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.86		*	mg/Kg	0.05	0.3	11/18/06 6:05	wfg
Calcium, soluble (Sat. Paste)	M6010B ICP	1.35		*	meq/L	0.01	0.05	11/29/06 21:56	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.29		*	meq/L	0.02	0.08	11/29/06 21:56	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	150		*	mg/Kg	20	50	12/04/06 15:41	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.051		*	meq/L	0.008	0.03	11/29/06 21:56	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	11/30/06 14:10	djt
Sodium Absorption Ratio	Calculation	0.24				0.03	0.15	12/21/06 10:15	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	11/29/06 21:56	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 95-115"

ACZ Sample ID: ***L59732-20***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	1			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	13			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	12			t CaCO3/Kt	1	5	12/21/06 10:15	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.4		*	%	0.1	0.5	11/21/06 16:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.254		*	mmhos/cm	0.001	0.01	11/24/06 14:00	srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.3		*	%	0.1	0.5	12/07/06 16:45	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.7		*	units	0.1	0.1	11/24/06 14:00	srs
Saturation Percent	USDA No. 60 (2)	51.00		*	%	0.01	0.1	11/24/06 14:00	srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.5		*	% Passing	0.1	0.5	12/08/06 17:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	74.4		*	% Passing	0.1	0.5	11/22/06 17:00	as/srs
Solids, Percent	CLPSOW390, PART F, D-98	89.7		*	%	0.1	0.5	11/29/06 8:11	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Sulfate		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Sulfur Total		0.04	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/25/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/07/06 0:00	brg
Sand		55.0		*	%	0.1	0.5	12/07/06 0:00	brg
Silt		30.0		*	%	0.1	0.5	12/07/06 0:00	brg
Texture Classification		L		*				12/07/06 0:00	brg
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 95-115"

ACZ Sample ID: ***L59732-20***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/27/06 15:00	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 10:00	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/17/06 12:00	srs/aep
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/27/06 19:00	jjr
Saturated Paste Extraction	USDA No. 60 (2)							11/20/06 21:00	srs/erf
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/13/06 17:00	as/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.3			mg/Kg	0.2	1	12/21/06 10:15	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.9	H	*	mg/Kg	0.2	1	11/30/06 22:15	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	11/30/06 22:15	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.39	H	*	%	0.01	0.05	12/08/06 18:06	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 20:18	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59732***

Boron, soluble (Hot Water) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216774													
WG216774ICV	ICV	11/18/06 4:16	II061113-6	2		1.938	mg/L	96.9	90	110			
WG216774ICB	ICB	11/18/06 4:20				U	mg/L		-0.03	0.03			
L59459-01DUP	DUP	11/18/06 4:44			.4	.4	mg/L				0	20	
WG216738PBS	PBS	11/18/06 4:48				U	mg/L		-0.15	0.15			
L59731-09DUP	DUP	11/18/06 4:56			.57	.72	mg/L				23.3	20	RC
L59731-10AS	AS	11/18/06 5:16	II061116-2	2.5	.66	3.185	mg/L	101	75	125			
L59731-10ASD	ASD	11/18/06 5:20	II061116-2	2.5	.66	3.202	mg/L	101.7	75	125	0.53	20	

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217319													
WG217319ICV	ICV	11/29/06 20:05	II061128-2	100		98.76	mg/L	98.8	90	110			
WG217319ICB	ICB	11/29/06 20:09				U	mg/L		-0.6	0.6			
L59732-01DUP	DUP	11/29/06 20:28			1.33	1.853	meq/L				32.8	20	RC

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216966													
WG216966PBS	PBS	11/21/06 12:00				U	%		-0.3	0.3			
L59732-01DUP	DUP	11/21/06 12:24			1.6	1.6	%				0	20	

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217046													
L59732-01DUP	DUP	11/22/06 16:31			.249	.347	mmhos/cm				32.9	20	RA TB

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217319													
WG217319ICV	ICV	11/29/06 20:05	II061128-2	100		96.21	mg/L	96.2	90	110			
WG217319ICB	ICB	11/29/06 20:09				U	mg/L		-0.6	0.6			
L59732-01DUP	DUP	11/29/06 20:28			.31	.442	meq/L				35.1	20	RC

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217777													
WG217777LCSS	LCSS	12/07/06 12:14	PCN20880	100		102.96	%						
L59732-20DUP	DUP	12/07/06 16:59			1.3	1.3	%				0	20	

Carbon Resources
Project ID:

ACZ Project ID: ***L59732***

Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217443													
WG217443ICV	ICV	11/30/06 20:53	WI060906-3	2.416		2.399	mg/L	99.3	90	110			
WG217443ICB	ICB	11/30/06 20:54				U	mg/L		-0.06	0.06			
WG217444													
WG217444ICV	ICV	11/30/06 21:38	WI060906-3	2.416		2.261	mg/L	93.6	90	110			
WG217444ICB	ICB	11/30/06 21:39				U	mg/L		-0.06	0.06			
WG217444LFB	LFB	11/30/06 21:41	WI060906-4	2		1.937	mg/Kg	96.9	85	115			
WG217125PBS	PBS	11/30/06 21:42				1.27	mg/Kg		-0.6	0.6			N1
L59732-01DUP	DUP	11/30/06 21:44			8.6	8.5	mg/Kg				1.2	20	
L59732-02AS	AS	11/30/06 21:47	WI060906-4	20	9.8	28.23	mg/Kg	92.2	75	125			

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217443													
WG217443ICV	ICV	11/30/06 20:53	WI060906-3	.609		.661	mg/L	108.5	90	110			
WG217443ICB	ICB	11/30/06 20:54				U	mg/L		-0.03	0.03			
WG217444													
WG217444ICV	ICV	11/30/06 21:38	WI060906-3	.609		.652	mg/L	107.1	90	110			
WG217444ICB	ICB	11/30/06 21:39				U	mg/L		-0.03	0.03			
WG217444LFB	LFB	11/30/06 21:41	WI060906-4	1		1.003	mg/Kg	100.3	85	115			
WG217125PBS	PBS	11/30/06 21:42				U	mg/Kg		-0.3	0.3			
L59732-01DUP	DUP	11/30/06 21:44			.7	.72	mg/Kg				2.8	20	RA
L59732-02AS	AS	11/30/06 21:47	WI060906-4	10	.8	10.25	mg/Kg	94.5	75	125			

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59732***

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217861													
WG217691ICV	ICV	12/08/06 17:01	WI061129-2	4		3.92	mg/L	98	90	110			
WG217691ICB	ICB	12/08/06 17:02				U	mg/L		-0.3	0.3			
WG217691PBS2	PBS	12/08/06 17:36				U	%		-0.003	0.003			
WG217691LFB2	LFB	12/08/06 17:37	WI061129-6	2.5		2.47	%	98.8	85	115			
L59735-14MS	MS	12/08/06 17:39	WI061129-6	.0325	.019	.0476	%	88	75	125			
WG217691PBS1	PBS	12/08/06 17:53				U	%		-0.003	0.003			
WG217691LFB1	LFB	12/08/06 17:54	WI061129-6	2.5		2.54	%	101.6	85	115			
L59735-15DUP	DUP	12/08/06 18:14			.19	.232	%				19.9	20	
L59732-11DUP	DUP	12/08/06 18:24			.153	.1393	%				9.4	20	
L59732-12MS	MS	12/08/06 18:26	5XPTSTKN	.0345	.054	.095	%	118.8	75	125			
WG218152													
WG218152ICV1	ICV	12/14/06 15:10	WI061129-2	4		3.93	mg/L	98.3	90	110			
WG218073ICB	ICB	12/14/06 15:12				U	mg/L		-0.3	0.3			
WG218073PBS	PBS	12/14/06 15:19				U	%		-0.006	0.006			
WG218073LFB	LFB	12/14/06 15:20	WI061129-6	2.5		2.66	%	106.4	85	115			
L60028-01MS	MS	12/14/06 15:27	100XTKN	.0535	6	5.94	%	-112.1	75	125			M3
L60098-01DUP	DUP	12/14/06 15:29			6.7	6.97	%				4	20	
WG218282													
WG218275ICV	ICV	12/18/06 11:56	WI061129-2	4		3.9	mg/L	97.5	90	110			
WG218275ICB	ICB	12/18/06 11:57				U	mg/L		-0.3	0.3			
WG218283													
WG218274PBS	PBS	12/18/06 13:45				U	%		-0.0024	0.0024			
WG218274LFB	LFB	12/18/06 13:46	WI061129-6	2.5		2.36	%	94.4	85	115			
WG218274ICV	ICV	12/18/06 15:14	WI061129-2	4		3.82	mg/L	95.5	90	110			
WG218274ICB	ICB	12/18/06 15:15				U	mg/L		-0.3	0.3			
L59732-01MS	MS	12/18/06 15:17	5XPTSTKN	.0235	.088	.116	%	119.1	75	125			
L59732-02DUP	DUP	12/18/06 15:19			.093	.1318	%				34.5	20	RD

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217417													
L59732-01DUP	DUP	12/07/06 9:24			21.3	21.3	%				0	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217417													
L59732-01DUP	DUP	12/07/06 9:24			37.5	37.5	%				0	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217417													
L59732-01DUP	DUP	12/07/06 9:24			41.3	41.3	%				0	20	

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Inorganic QC Summary

Carbon Resources

Project ID:

ACZ Project ID: ***L59732***

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217046													
L59732-01DUP	DUP	11/22/06 16:31			7.7	7.69	units				0.1	20	

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217438													
WG217438ICV	ICV	11/30/06 18:55	SCN000224	.65228		.649	mg/L	99.5	90	110			
WG217438ICB	ICB	11/30/06 18:57				.013	mg/L		-0.03	0.03			
WG217440													
WG217440ICV	ICV	11/30/06 19:33	SCN000224	.65228		.663	mg/L	101.6	90	110			
WG217440ICB	ICB	11/30/06 19:35				.013	mg/L		-0.03	0.03			
WG217440LFB1	LFB	11/30/06 19:36	WI061125-2	.5		.484	mg/Kg	96.8	85	115			
L59811-01DUP	DUP	11/30/06 19:39			8	7.6	mg/Kg				5.1	20	RA
L59811-02AS	AS	11/30/06 19:42	WI061125-2	50	6	51.3	mg/Kg	90.6	75	125			
WG217005PBS	PBS	11/30/06 19:49				7.1	mg/Kg		-3	3			N1
L59732-01DUP	DUP	11/30/06 19:51			18	17.5	mg/Kg				2.8	20	
L59732-02AS	AS	11/30/06 19:54	WI061125-2	50	15	62.5	mg/Kg	95	75	125			
WG217440LFB2	LFB	11/30/06 20:10	WI061125-2	.5		.505	mg/Kg	101	85	115			

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217467													
WG217467ICV	ICV	12/04/06 13:51	II061128-2	20		18.58	mg/L	92.9	90	110			
WG217467ICB	ICB	12/04/06 13:54				U	mg/L		-0.9	0.9			
WG217005PBS	PBS	12/04/06 14:08				U	mg/L		-60	60			
L59732-01DUP	DUP	12/04/06 14:15			80	88	mg/L				9.5	20	RA
L59732-02AS	AS	12/04/06 14:22	II061116-2	4973.4095	240	5814	mg/L	112.1	75	125			
L59732-02ASD	ASD	12/04/06 14:25	II061116-2	4973.4095	240	6145	mg/L	118.7	75	125	5.54	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217319													
WG217319ICV	ICV	11/29/06 20:05	II061128-2	20		19.22	mg/L	96.1	90	110			
WG217319ICB	ICB	11/29/06 20:09				U	mg/L		-0.9	0.9			
L59732-01DUP	DUP	11/29/06 20:28			.076	.0599	meq/L				23.7	20	RA

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217046													
L59732-01DUP	DUP	11/22/06 16:31			52.3	51.04	%				2.4	20	

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Inorganic QC Summary

Carbon Resources
Project ID:

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Selenium, soluble (Hot Water) SM3500-Se.C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217220													
WG217220ICV	ICV	11/30/06 10:30	II061127-5	.025		.0272	mg/L	108.8	90	110			
WG217220ICB	ICB	11/30/06 10:33				U	mg/L		-0.003	0.003			
WG217223													
L59732-20AS	AS	11/30/06 14:14	II061113-3	.1	U	.097	mg/Kg	97	85	115			
L59732-20ASD	ASD	11/30/06 14:25	II061113-3	.1	U	.0985	mg/Kg	98.5	85	115	1.53	20	
WG216738PBS	PBS	11/30/06 15:18				U	mg/Kg		-0.015	0.015			
L59731-09DUP	DUP	11/30/06 15:25			U	U	mg/Kg				0	20	RA
L59731-10AS	AS	11/30/06 15:33	II061113-3	.1	U	.0961	mg/Kg	96.1	85	115			
L59731-10ASD	ASD	11/30/06 15:36	II061113-3	.1	U	.0958	mg/Kg	95.8	85	115	0.31	20	

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217319													
WG217319ICV	ICV	11/29/06 20:05	II061128-2	100		95.35	mg/L	95.4	90	110			
WG217319ICB	ICB	11/29/06 20:09				U	mg/L		-0.9	0.9			
L59732-01DUP	DUP	11/29/06 20:28			.3	.578	meq/L				63.3	20	RC

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217210													
WG217210PBS	PBS	11/28/06 12:00				U	%		99.9	100.1			
L59732-20DUP	DUP	11/29/06 9:15			89.7	89.49	%				0.2	20	

Sulfur Organic Residual M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

Sulfur Pyritic Sulfide M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			U	U	%				0	20	RA

Sulfur Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

Sulfur Total M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
WG217075PBS	PBS	11/24/06 11:00				U	%		-0.03	0.03			
WG217075LCSS	LCSS	11/24/06 13:23	PCN25383	4.24		4.3	%		80	120			
L59732-20DUP	DUP	11/25/06 18:00			.04	.04	%				0	20	RA

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59732***

Total Sulfur Minus Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217075													
L59732-20DUP	DUP	11/25/06 18:00			.02	.02	%				0	20	RA

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-01	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-02	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-03	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-04	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-05	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-06	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-07	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-08	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-09	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-10	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218283	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-11	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-12	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-13	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Carbon Resources

ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-14	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-15	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-16	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217319	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-17	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217319	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-18	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217319	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

Carbon Resources

ACZ Project ID: ***L59732***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59732-20	WG216774	Boron, soluble (Hot Water)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217319	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217467	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
			M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217319	Potassium, soluble (Sat. Paste)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217223	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217319	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217046	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217075	Sulfur Organic Residual	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfur Total	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Total Sulfur minus Sulfate	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217444	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217440	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Certification Qualifiers

Carbon Resources

ACZ Project ID: ***L59732***

Metals Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Selenium, soluble (Hot Water)	SM3500-Se.C

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Sulfur Forms	M600/2-78-054 3.2.4
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

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Sample Receipt

Carbon Resources

ACZ Project ID: L59732
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

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Sample Receipt

Carbon Resources

ACZ Project ID: L59732
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59732-01	D-5 40-60"									X		
L59732-02	D-6 0-7"									X		
L59732-03	D-6 24-48"									X		
L59732-04	D-6 48-72"									X		
L59732-05	D-7 0-6"									X		
L59732-06	D-7 6-20"									X		
L59732-07	D-7 20-42"									X		
L59732-08	D-7 42-58"									X		
L59732-09	D-7 58-70"									X		
L59732-10	D-8 0-6"									X		
L59732-11	D-8 6-13"									X		
L59732-12	D-8 13-20"									X		
L59732-13	D-8 20-48"									X		
L59732-14	D-9A 0-6"									X		
L59732-15	D-9A 6-12"									X		
L59732-16	D-9A 12-30"									X		
L59732-17	D-9A 30-68"									X		
L59732-18	D-9A 80-95"									X		
L59732-20	D-9A 95-115"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59732

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

LTC 10·26·06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

Very Fine Sand

analyst: as
date: 12-12-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59732-01	219.77	84.4	40.0	6.2	**13.10**
L59732-02	300.77	87.6	40.0	5.6	**12.30**
L59732-03	240.99	72.4	40.0	6.2	**11.30**
L59732-04	272.23	61.4	40.0	5.8	**8.9**
L59732-05	211.88	68.2	40.0	5.7	**9.7**
L59732-06	228.73	53.9	40.0	5.2	**7.1**
L59732-07	225.47	67.7	40.0	5.0	**8.5**
L59732-08	257.01	70.3	40.0	5.2	**9.1**
L59732-09	234.19	94.6	40.0	10.0	**23.6**
L59732-10	212.60	92.1	40.0	8.8	**20.3**
L59732-11	186.83	90.5	40.0	9.3	**21.1**
L59732-12	207.24	96.9	40.0	10.0	**24.2**
L59732-13	208.49	92.6	40.0	10.3	**23.9**
L59732-14	221.90	75.6	40.0	7.6	**14.4**
L59732-15	232.91	79.3	40.0	7.8	**15.4**
L59732-16	274.03	59.8	40.0	3.8	**5.6**
L59732-17	254.63	51.7	40.0	2.0	**2.6**
L59732-18	181.46	80.3	40.0	7.2	**14.5**
L59732-20	200.70	74.4	40.0	8.3	**15.5**
dup L59732-01	219.77	84.4	40.	6.6	**13.9**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG216880

-sieve53 WG217642

-texture WG217417

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Greg Hunt, Bruce Chesler

Project ID:
ACZ Project ID: L59733

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59733. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59733. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac

ACIL

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048: (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59733

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 20 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59733. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 115-145"

ACZ Sample ID: ***L59733-01***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 14:49	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.57		*	mg/Kg	0.05	0.3	12/08/06 5:29	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	12.70			meq/L	0.01	0.05	12/07/06 4:26	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	2.67			meq/L	0.02	0.08	12/07/06 4:26	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	200		*	mg/Kg	20	50	12/06/06 12:49	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.351			meq/L	0.008	0.03	12/07/06 4:26	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 11:43	djt
Sodium Absorption Ratio	Calculation	0.10	B			0.03	0.15	12/21/06 10:26	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.30			meq/L	0.01	0.04	12/07/06 4:26	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 115-145"

ACZ Sample ID: ***L59733-01***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	5			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	5			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.3	B	*	%	0.1	0.5	12/05/06 9:22	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.250		*	mmhos/cm	0.001	0.01	11/30/06 10:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	11/30/06 9:32	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/30/06 10:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	42.50		*	%	0.01	0.1	11/30/06 10:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.2		*	% Passing	0.1	0.5	12/11/06 9:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	81.5		*	% Passing	0.1	0.5	11/24/06 8:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	89.5		*	%	0.1	0.5	11/28/06 13:00	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.01	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Sulfate		0.01	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.01	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/08/06 0:00	srs
Sand		50.0		*	%	0.1	0.5	12/08/06 0:00	srs
Silt		27.5		*	%	0.1	0.5	12/08/06 0:00	srs
Texture Classification		L		*				12/08/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9A 115-145"

ACZ Sample ID: ***L59733-01***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 9:20	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:00	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 15:13	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 16:11	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:00	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:00	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.6			mg/Kg	0.2	1	12/21/06 10:26	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.2	H	*	mg/Kg	0.2	1	12/02/06 18:13	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:13	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.046	H	*	%	0.004	0.02	11/18/06 20:41	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	13	H	*	mg/Kg	1	5	11/30/06 20:29	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 0-6"

ACZ Sample ID: ***L59733-02***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 15:06	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.46		*	mg/Kg	0.05	0.3	12/08/06 5:45	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	2.76			meq/L	0.01	0.05	12/07/06 4:30	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.39			meq/L	0.02	0.08	12/07/06 4:30	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	250		*	mg/Kg	20	50	12/06/06 12:56	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.317			meq/L	0.008	0.03	12/07/06 4:30	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 11:54	djt
Sodium Absorption Ratio	Calculation	0.18				0.03	0.15	12/21/06 10:26	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.23			meq/L	0.01	0.04	12/07/06 4:30	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 0-6"

ACZ Sample ID: ***L59733-02***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	24			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	24			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.7		*	%	0.1	0.5	12/05/06 10:08	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.430		*	mmhos/cm	0.001	0.01	11/30/06 11:21	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.4		*	%	0.1	0.5	11/30/06 9:49	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	11/30/06 11:21	lwt/srs
Saturation Percent	USDA No. 60 (2)	41.50		*	%	0.01	0.1	11/30/06 11:21	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	85.0		*	% Passing	0.1	0.5	12/11/06 10:15	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.3		*	% Passing	0.1	0.5	11/24/06 12:15	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	86.6		*	%	0.1	0.5	11/28/06 14:01	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Sulfate			U	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Sulfur Total		0.02	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.02	B	*	%	0.01	0.1	11/30/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		25.0		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		35.0		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		40.0		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		SiL		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 0-6"

ACZ Sample ID: ***L59733-02***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 10:02	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:03	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 15:26	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 16:34	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:06	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:03	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.9			mg/Kg	0.2	1	12/21/06 10:26	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	3.5	H	*	mg/Kg	0.2	1	12/02/06 18:16	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:16	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.133	H	*	%	0.003	0.02	11/18/06 20:43	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	20	H	*	mg/Kg	1	5	11/30/06 20:31	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 6-12"

ACZ Sample ID: ***L59733-03***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 15:23	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.49		*	mg/Kg	0.05	0.3	12/08/06 5:49	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	2.47			meq/L	0.01	0.05	12/07/06 4:34	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.39			meq/L	0.02	0.08	12/07/06 4:34	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	170		*	mg/Kg	20	50	12/08/06 1:51	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.120			meq/L	0.008	0.03	12/07/06 4:34	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 11:57	djt
Sodium Absorption Ratio	Calculation	0.17				0.03	0.15	12/21/06 10:26	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.21			meq/L	0.01	0.04	12/07/06 4:34	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 6-12"

ACZ Sample ID: ***L59733-03***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	22			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	22			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.4		*	%	0.1	0.5	12/05/06 10:31	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.370		*	mmhos/cm	0.001	0.01	11/30/06 12:42	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.2		*	%	0.1	0.5	11/30/06 10:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	11/30/06 12:42	lwt/srs
Saturation Percent	USDA No. 60 (2)	34.90		*	%	0.01	0.1	11/30/06 12:42	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.7		*	% Passing	0.1	0.5	12/11/06 11:31	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.2		*	% Passing	0.1	0.5	11/24/06 16:31	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	85.7		*	%	0.1	0.5	11/28/06 15:02	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.03	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate			U	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		0.03	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.03	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		51.3		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		31.3		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		L		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 6-12"

ACZ Sample ID: ***L59733-03***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 10:22	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:06	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 15:40	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 16:45	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:12	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:06	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.9	B		mg/Kg	0.2	1	12/21/06 10:26	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.6	H	*	mg/Kg	0.2	1	12/02/06 18:18	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:18	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.24	H	*	%	0.02	0.1	11/18/06 20:45	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	31	H	*	mg/Kg	1	5	11/30/06 20:33	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 12-30"

ACZ Sample ID: ***L59733-04***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 15:32	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	2.27		*	mg/Kg	0.05	0.3	12/08/06 6:01	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	18.50			meq/L	0.01	0.05	12/07/06 4:38	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	3.87			meq/L	0.02	0.08	12/07/06 4:38	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	120		*	mg/Kg	20	50	12/08/06 2:15	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.174			meq/L	0.008	0.03	12/07/06 4:38	msh
Selenium, soluble (Hot Water)	SM3500-Se.C	0.007	B	*	mg/Kg	0.005	0.03	12/01/06 12:01	djt
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/21/06 10:26	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.25			meq/L	0.01	0.04	12/07/06 4:38	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 12-30"

ACZ Sample ID: ***L59733-04***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	16			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	51			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	35			t CaCO3/Kt	1	5	12/21/06 10:26	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	23.1		*	%	0.1	0.5	12/05/06 10:54	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.610		*	mmhos/cm	0.001	0.01	11/30/06 14:03	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	5.1		*	%	0.1	0.5	11/30/06 10:21	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/30/06 14:03	lwt/srs
Saturation Percent	USDA No. 60 (2)	50.30		*	%	0.01	0.1	11/30/06 14:03	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	96.3		*	% Passing	0.1	0.5	12/11/06 12:47	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	47.2		*	% Passing	0.1	0.5	11/24/06 20:47	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.9		*	%	0.1	0.5	11/28/06 16:02	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.20		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.12		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate		0.20		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		0.52		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.32		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		23.8		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		50.0		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		26.3		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		L		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 12-30"

ACZ Sample ID: ***L59733-04***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 10:43	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:09	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 15:53	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 16:57	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:18	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:09	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.5			mg/Kg	0.2	1	12/21/06 10:26	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.5	H	*	mg/Kg	0.2	1	12/02/06 18:19	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/02/06 18:19	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.73		*	%	0.04	0.2	11/18/06 20:46	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	3	BH	*	mg/Kg	1	5	11/30/06 20:34	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 30-52"

ACZ Sample ID: ***L59733-05***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 15:41	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	1.41		*	mg/Kg	0.05	0.3	12/08/06 6:05	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	25.10			meq/L	0.01	0.05	12/07/06 4:46	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	1.48			meq/L	0.02	0.08	12/07/06 4:46	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	30	B	*	mg/Kg	20	50	12/08/06 2:19	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.062			meq/L	0.008	0.03	12/07/06 4:46	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 12:05	djt
Sodium Absorption Ratio	Calculation	0.04	B			0.03	0.15	12/21/06 10:27	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.16			meq/L	0.01	0.04	12/07/06 4:46	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 30-52"

ACZ Sample ID: ***L59733-05***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	35			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	46			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	11			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	54.0		*	%	0.1	0.5	12/05/06 11:17	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.770		*	mmhos/cm	0.001	0.01	11/30/06 16:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	4.6		*	%	0.1	0.5	11/30/06 10:38	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	11/30/06 16:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	59.00		*	%	0.01	0.1	11/30/06 16:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	97.1		*	% Passing	0.1	0.5	12/11/06 14:03	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	72.1		*	% Passing	0.1	0.5	11/25/06 1:03	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.5		*	%	0.1	0.5	11/28/06 17:03	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.51		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.08	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate		0.54		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		1.13		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.59		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		2.5		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		93.8		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		3.8		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		S		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 30-52"

ACZ Sample ID: ***L59733-05***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 11:04	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:12	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 16:06	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 17:08	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:30	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:12	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.2			mg/Kg	0.2	1	12/21/06 10:27	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.2	H	*	mg/Kg	0.2	1	12/02/06 18:24	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/02/06 18:24	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	1.43		*	%	0.05	0.3	11/18/06 22:38	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	1	BH	*	mg/Kg	1	5	11/30/06 20:35	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 52-80"

ACZ Sample ID: ***L59733-06***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 15:49	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	1.73		*	mg/Kg	0.05	0.3	12/08/06 6:09	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	20.10			meq/L	0.01	0.05	12/07/06 4:50	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	6.54			meq/L	0.02	0.08	12/07/06 4:50	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	150		*	mg/Kg	20	50	12/08/06 2:23	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.424			meq/L	0.008	0.03	12/07/06 4:50	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 12:08	djt
Sodium Absorption Ratio	Calculation	0.05	B			0.03	0.15	12/21/06 10:27	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.21			meq/L	0.01	0.04	12/07/06 4:50	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 52-80"

ACZ Sample ID: ***L59733-06***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	2			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	7			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	5			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	12/05/06 11:39	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.850		*	mmhos/cm	0.001	0.01	11/30/06 18:06	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	11/30/06 10:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	11/30/06 18:06	lwt/srs
Saturation Percent	USDA No. 60 (2)	38.00		*	%	0.01	0.1	11/30/06 18:06	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	78.6		*	% Passing	0.1	0.5	12/11/06 15:18	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.7		*	% Passing	0.1	0.5	11/25/06 5:18	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.5		*	%	0.1	0.5	11/28/06 18:04	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.02	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate		0.04	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		0.05	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.01	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		13.8		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		60.0		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		26.3		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		SL		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 52-80"

ACZ Sample ID: ***L59733-06***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 11:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:15	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 16:20	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 17:20	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:36	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:15	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.4	B		mg/Kg	0.2	1	12/21/06 10:27	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	12/02/06 18:25	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:25	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.094	H	*	%	0.002	0.01	11/18/06 20:48	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 20:37	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 80-102"

ACZ Sample ID: ***L59733-07***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:15	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	0.86		*	mg/Kg	0.05	0.3	12/08/06 6:13	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	19.40			meq/L	0.01	0.05	12/07/06 5:02	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	6.62			meq/L	0.02	0.08	12/07/06 5:02	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	180		*	mg/Kg	20	50	12/08/06 2:27	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.583			meq/L	0.008	0.03	12/07/06 5:02	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 12:19	djt
Sodium Absorption Ratio	Calculation	0.06	B			0.03	0.15	12/21/06 10:27	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.24			meq/L	0.01	0.04	12/07/06 5:02	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 80-102"

ACZ Sample ID: ***L59733-07***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	0			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	6			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	6			t CaCO3/Kt	1	5	12/21/06 10:27	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.9		*	%	0.1	0.5	12/05/06 12:02	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.730		*	mmhos/cm	0.001	0.01	11/30/06 19:27	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	11/30/06 11:10	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	11/30/06 19:27	lwt/srs
Saturation Percent	USDA No. 60 (2)	37.90		*	%	0.01	0.1	11/30/06 19:27	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	79.8		*	% Passing	0.1	0.5	12/11/06 16:34	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.7		*	% Passing	0.1	0.5	11/25/06 9:34	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.9		*	%	0.1	0.5	11/28/06 19:05	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.01	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide			U	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate		0.02	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		0.03	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.01	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		53.8		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		31.3		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		L		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-9B 80-102"

ACZ Sample ID: ***L59733-07***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 11:45	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:18	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 16:33	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 17:31	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:42	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:18	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.4	B		mg/Kg	0.2	1	12/21/06 10:27	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.1	H	*	mg/Kg	0.2	1	12/02/06 18:27	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:27	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.060	H	*	%	0.002	0.01	11/18/06 20:53	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 20:40	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 0-5"

ACZ Sample ID: ***L59733-08***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:24	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.23			meq/L	0.01	0.05	12/07/06 5:07	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.67			meq/L	0.02	0.08	12/07/06 5:07	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	410		*	mg/Kg	20	50	12/08/06 2:31	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	1.110			meq/L	0.008	0.03	12/07/06 5:07	msh
Sodium Absorption Ratio	Calculation	0.16				0.03	0.15	12/21/06 10:27	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.23			meq/L	0.01	0.04	12/07/06 5:07	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.3		*	%	0.1	0.5	12/05/06 12:25	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.530		*	mmhos/cm	0.001	0.01	11/30/06 20:48	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	11/30/06 11:27	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/30/06 20:48	lwt/srs
Saturation Percent	USDA No. 60 (2)	50.70		*	%	0.01	0.1	11/30/06 20:48	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	68.2		*	% Passing	0.1	0.5	12/11/06 17:50	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	81.6		*	% Passing	0.1	0.5	11/25/06 13:50	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	82.6		*	%	0.1	0.5	11/28/06 20:05	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/09/06 0:00	srs
Sand		47.5		*	%	0.1	0.5	12/09/06 0:00	srs
Silt		37.5		*	%	0.1	0.5	12/09/06 0:00	srs
Texture Classification		L		*				12/09/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 0-5"

ACZ Sample ID: ***L59733-08***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 12:06	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:22	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 17:42	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:48	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:22	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.8			mg/Kg	0.2	1	12/21/06 10:27	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.8	H	*	mg/Kg	0.2	1	12/02/06 18:28	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/02/06 18:28	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.307	H	*	%	0.009	0.04	11/18/06 22:56	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	21	H	*	mg/Kg	1	5	11/30/06 20:41	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 5-11"

ACZ Sample ID: ***L59733-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:32	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.34			meq/L	0.01	0.05	12/07/06 5:11	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.28			meq/L	0.02	0.08	12/07/06 5:11	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	180		*	mg/Kg	20	50	12/08/06 2:35	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.147			meq/L	0.008	0.03	12/07/06 5:11	msh
Sodium Absorption Ratio	Calculation	0.40				0.03	0.15	12/21/06 10:27	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.36			meq/L	0.01	0.04	12/07/06 5:11	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.1		*	%	0.1	0.5	12/05/06 12:48	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.280		*	mmhos/cm	0.001	0.01	11/30/06 22:09	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.7		*	%	0.1	0.5	11/30/06 11:43	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	11/30/06 22:09	lwt/srs
Saturation Percent	USDA No. 60 (2)	48.30		*	%	0.01	0.1	11/30/06 22:09	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.1		*	% Passing	0.1	0.5	12/11/06 19:06	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	47.4		*	% Passing	0.1	0.5	11/25/06 18:06	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	87.4		*	%	0.1	0.5	11/28/06 21:06	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		25.0		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		33.8		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		41.3		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		SiL		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 5-11"

ACZ Sample ID: ***L59733-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 12:27	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:25	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 17:54	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 16:54	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:25	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.5			mg/Kg	0.2	1	12/21/06 10:27	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.1	H	*	mg/Kg	0.2	1	12/02/06 18:29	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:29	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.115	H	*	%	0.003	0.01	11/18/06 22:43	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	13	H	*	mg/Kg	1	5	11/30/06 20:42	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 11-23"

ACZ Sample ID: ***L59733-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:41	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.82			meq/L	0.01	0.05	12/07/06 5:15	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.25			meq/L	0.02	0.08	12/07/06 5:15	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	130		*	mg/Kg	20	50	12/08/06 2:39	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.094			meq/L	0.008	0.03	12/07/06 5:15	msh
Sodium Absorption Ratio	Calculation	0.49				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.36			meq/L	0.01	0.04	12/07/06 5:15	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.8		*	%	0.1	0.5	12/05/06 13:11	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.220		*	mmhos/cm	0.001	0.01	11/30/06 23:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	11/30/06 12:00	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	11/30/06 23:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	61.70		*	%	0.01	0.1	11/30/06 23:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	97.0		*	% Passing	0.1	0.5	12/11/06 20:22	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	23.0		*	% Passing	0.1	0.5	11/25/06 22:22	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.7		*	%	0.1	0.5	11/28/06 22:07	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		38.8		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		26.3		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		35.0		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		SiCL		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 11-23"

ACZ Sample ID: ***L59733-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 12:47	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:28	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 18:05	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:00	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:28	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.9	B		mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.5	H	*	mg/Kg	0.2	1	12/02/06 18:30	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:30	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.083	H	*	%	0.002	0.01	11/18/06 20:56	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	7	H	*	mg/Kg	1	5	11/30/06 20:43	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 23-35"

ACZ Sample ID: ***L59733-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:50	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.81			meq/L	0.01	0.05	12/07/06 5:19	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.39			meq/L	0.02	0.08	12/07/06 5:19	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	130		*	mg/Kg	20	50	12/08/06 2:43	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.187			meq/L	0.008	0.03	12/07/06 5:19	msh
Sodium Absorption Ratio	Calculation	0.43				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.34			meq/L	0.01	0.04	12/07/06 5:19	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.7		*	%	0.1	0.5	12/05/06 13:34	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.250		*	mmhos/cm	0.001	0.01	12/01/06 0:51	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	11/30/06 12:16	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	12/01/06 0:51	lwt/srs
Saturation Percent	USDA No. 60 (2)	69.60		*	%	0.01	0.1	12/01/06 0:51	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	98.0		*	% Passing	0.1	0.5	12/11/06 21:37	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	18.9		*	% Passing	0.1	0.5	11/26/06 2:37	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.2		*	%	0.1	0.5	11/28/06 23:07	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		42.5		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		22.5		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		35.0		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		SIC		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-10 23-35"

ACZ Sample ID: ***L59733-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 13:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:31	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 18:17	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:06	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:31	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.0			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.7	H	*	mg/Kg	0.2	1	12/02/06 18:31	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:31	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.056	H	*	%	0.002	0.01	11/18/06 20:57	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	8	H	*	mg/Kg	1	5	11/30/06 20:44	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 0-12"

ACZ Sample ID: ***L59733-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 16:58	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.98			meq/L	0.01	0.05	12/07/06 5:23	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.35			meq/L	0.02	0.08	12/07/06 5:23	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	230		*	mg/Kg	20	50	12/08/06 2:47	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.217			meq/L	0.008	0.03	12/07/06 5:23	msh
Sodium Absorption Ratio	Calculation	0.20				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.26			meq/L	0.01	0.04	12/07/06 5:23	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.6		*	%	0.1	0.5	12/05/06 13:57	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.420		*	mmhos/cm	0.001	0.01	12/01/06 2:12	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.1		*	%	0.1	0.5	11/30/06 12:32	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	12/01/06 2:12	lwt/srs
Saturation Percent	USDA No. 60 (2)	40.80		*	%	0.01	0.1	12/01/06 2:12	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	88.3		*	% Passing	0.1	0.5	12/11/06 22:53	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	57.9		*	% Passing	0.1	0.5	11/26/06 6:53	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	85.5		*	%	0.1	0.5	11/29/06 0:08	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		25.0		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		42.5		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		32.5		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		L		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 0-12"

ACZ Sample ID: ***L59733-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 13:29	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:34	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 18:28	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:12	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:34	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.8			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.4	H	*	mg/Kg	0.2	1	12/02/06 18:33	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:33	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.076	H	*	%	0.002	0.01	11/18/06 20:59	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	15	H	*	mg/Kg	1	5	11/30/06 20:45	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 11-48"

ACZ Sample ID: ***L59733-13***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 17:07	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Boron, soluble (Hot Water)	M6010B ICP	1.41		*	mg/Kg	0.05	0.3	12/08/06 6:17	gme
Calcium, soluble (Sat. Paste)	M6010B ICP	20.50			meq/L	0.01	0.05	12/07/06 5:27	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	2.88			meq/L	0.02	0.08	12/07/06 5:27	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	110		*	mg/Kg	20	50	12/08/06 2:51	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.109			meq/L	0.008	0.03	12/07/06 5:27	msh
Selenium, soluble (Hot Water)	SM3500-Se.C		U	*	mg/Kg	0.005	0.03	12/01/06 12:23	djt
Sodium Absorption Ratio	Calculation	0.06	B			0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.23			meq/L	0.01	0.04	12/07/06 5:27	msh

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 11-48"

ACZ Sample ID: ***L59733-13***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 1.3	12			t CaCO3/Kt	1	5	12/21/06 10:28	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	35			t CaCO3/Kt	1	5	12/21/06 10:28	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	23			t CaCO3/Kt	1	5	12/21/06 10:28	calc
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	25.0		*	%	0.1	0.5	12/05/06 14:19	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.630		*	mmhos/cm	0.001	0.01	12/01/06 3:33	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	3.5		*	%	0.1	0.5	11/30/06 12:49	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	12/01/06 3:33	lwt/srs
Saturation Percent	USDA No. 60 (2)	53.20		*	%	0.01	0.1	12/01/06 3:33	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.1		*	% Passing	0.1	0.5	12/12/06 0:09	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	65.8		*	% Passing	0.1	0.5	11/26/06 11:09	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	86.4		*	%	0.1	0.5	11/29/06 1:09	lwt/srs
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		0.22		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Pyritic Sulfide		0.07	B	*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Sulfate		0.10		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Sulfur Total		0.39		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Total Sulfur minus Sulfate		0.29		*	%	0.01	0.1	12/01/06 0:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		62.5		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		20.0		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		SL		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 11-48"

ACZ Sample ID: ***L59733-13***
Date Sampled: *10/25/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 13:50	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:37	erf
Hot Water Extraction	ASA No. 9 M80-3, M25-9							11/28/06 16:46	jjr
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 18:40	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:18	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:37	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.7	B		mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.5	H	*	mg/Kg	0.2	1	12/02/06 18:34	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/02/06 18:34	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.240		*	%	0.007	0.03	11/18/06 22:44	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	2	BH	*	mg/Kg	1	5	11/30/06 20:47	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 62-82"

ACZ Sample ID: ***L59733-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 17:15	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	12.80			meq/L	0.01	0.05	12/07/06 5:31	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	4.28			meq/L	0.02	0.08	12/07/06 5:31	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	140		*	mg/Kg	20	50	12/08/06 3:03	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.157			meq/L	0.008	0.03	12/07/06 5:31	msh
Sodium Absorption Ratio	Calculation	0.08	B			0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.26			meq/L	0.01	0.04	12/07/06 5:31	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.6		*	%	0.1	0.5	12/05/06 14:42	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.330		*	mmhos/cm	0.001	0.01	12/01/06 4:54	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	5.3		*	%	0.1	0.5	11/30/06 13:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	12/01/06 4:54	lwt/srs
Saturation Percent	USDA No. 60 (2)	44.80		*	%	0.01	0.1	12/01/06 4:54	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	93.7		*	% Passing	0.1	0.5	12/12/06 1:25	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	32.8		*	% Passing	0.1	0.5	11/26/06 15:25	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	90.3		*	%	0.1	0.5	11/29/06 2:10	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		51.3		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		30.0		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		L		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-11 62-82"

ACZ Sample ID: ***L59733-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 14:10	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:40	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 18:51	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:24	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:40	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	0.6	B		mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.3	H	*	mg/Kg	0.2	1	12/02/06 18:35	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:35	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.153	H	*	%	0.004	0.02	11/18/06 22:45	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	9	H	*	mg/Kg	1	5	11/30/06 20:48	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 0-6"

ACZ Sample ID: ***L59733-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 17:24	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.11			meq/L	0.01	0.05	12/07/06 5:35	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.62			meq/L	0.02	0.08	12/07/06 5:35	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	440		*	mg/Kg	20	50	12/08/06 3:07	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	1.060			meq/L	0.008	0.03	12/07/06 5:35	msh
Sodium Absorption Ratio	Calculation	0.18				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.21			meq/L	0.01	0.04	12/07/06 5:35	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.2		*	%	0.1	0.5	12/05/06 15:05	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.420		*	mmhos/cm	0.001	0.01	12/01/06 6:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	11/30/06 13:21	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/01/06 6:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	55.90		*	%	0.01	0.1	12/01/06 6:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	76.6		*	% Passing	0.1	0.5	12/12/06 2:40	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	91.0		*	% Passing	0.1	0.5	11/26/06 19:40	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	79.0		*	%	0.1	0.5	11/29/06 3:10	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/10/06 0:00	srs
Sand		50.0		*	%	0.1	0.5	12/10/06 0:00	srs
Silt		37.5		*	%	0.1	0.5	12/10/06 0:00	srs
Texture Classification		L		*				12/10/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 0-6"

ACZ Sample ID: ***L59733-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 14:31	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:44	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 19:02	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:30	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:44	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.6			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.6	H	*	mg/Kg	0.2	1	12/02/06 18:40	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/02/06 18:40	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.246	H	*	%	0.009	0.04	11/18/06 22:46	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	22	H	*	mg/Kg	1	5	11/30/06 20:49	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 6-14"

ACZ Sample ID: ***L59733-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 17:33	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.23			meq/L	0.01	0.05	12/07/06 5:39	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.41			meq/L	0.02	0.08	12/07/06 5:39	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	240		*	mg/Kg	20	50	12/08/06 3:11	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.376			meq/L	0.008	0.03	12/07/06 5:39	msh
Sodium Absorption Ratio	Calculation	0.30				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.28			meq/L	0.01	0.04	12/07/06 5:39	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.0		*	%	0.1	0.5	12/05/06 15:28	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.270		*	mmhos/cm	0.001	0.01	12/01/06 7:36	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	11/30/06 13:38	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/01/06 7:36	lwt/srs
Saturation Percent	USDA No. 60 (2)	42.70		*	%	0.01	0.1	12/01/06 7:36	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	77.3		*	% Passing	0.1	0.5	12/12/06 3:56	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.0		*	% Passing	0.1	0.5	11/26/06 23:56	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	84.8		*	%	0.1	0.5	11/29/06 4:11	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		13.8		*	%	0.1	0.5	12/11/06 0:00	srs
Sand		52.5		*	%	0.1	0.5	12/11/06 0:00	srs
Silt		33.8		*	%	0.1	0.5	12/11/06 0:00	srs
Texture Classification		L		*				12/11/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 6-14"

ACZ Sample ID: ***L59733-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 14:52	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:47	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 19:14	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:36	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:47	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.0			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.7	H	*	mg/Kg	0.2	1	12/02/06 18:41	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:41	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.108	H	*	%	0.003	0.01	11/18/06 21:05	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	16	H	*	mg/Kg	1	5	11/30/06 20:50	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 14-28"

ACZ Sample ID: ***L59733-17***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 17:59	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.82			meq/L	0.01	0.05	12/07/06 5:51	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31			meq/L	0.02	0.08	12/07/06 5:51	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	170		*	mg/Kg	20	50	12/08/06 3:16	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.195			meq/L	0.008	0.03	12/07/06 5:51	msh
Sodium Absorption Ratio	Calculation	0.35				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.27			meq/L	0.01	0.04	12/07/06 5:51	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.7		*	%	0.1	0.5	12/05/06 15:51	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.210		*	mmhos/cm	0.001	0.01	12/01/06 8:57	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	11/30/06 13:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/01/06 8:57	lwt/srs
Saturation Percent	USDA No. 60 (2)	36.50		*	%	0.01	0.1	12/01/06 8:57	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.2		*	% Passing	0.1	0.5	12/12/06 5:12	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	69.5		*	% Passing	0.1	0.5	11/27/06 4:12	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.7		*	%	0.1	0.5	11/29/06 5:12	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/11/06 0:00	srs
Sand		51.3		*	%	0.1	0.5	12/11/06 0:00	srs
Silt		36.3		*	%	0.1	0.5	12/11/06 0:00	srs
Texture Classification		L		*				12/11/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 14-28"

ACZ Sample ID: ***L59733-17***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 15:12	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:50	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 19:25	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:42	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:50	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.9			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.6	H	*	mg/Kg	0.2	1	12/02/06 18:42	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:42	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.42	H	*	%	0.01	0.06	11/18/06 22:47	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	13	H	*	mg/Kg	1	5	11/30/06 21:06	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 28-48"

ACZ Sample ID: ***L59733-18***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 18:07	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.15			meq/L	0.01	0.05	12/07/06 5:55	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.36			meq/L	0.02	0.08	12/07/06 5:55	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	170		*	mg/Kg	20	50	12/08/06 3:20	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.163			meq/L	0.008	0.03	12/07/06 5:55	msh
Sodium Absorption Ratio	Calculation	0.32				0.03	0.15	12/21/06 10:28	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.28			meq/L	0.01	0.04	12/07/06 5:55	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/05/06 16:14	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.250		*	mmhos/cm	0.001	0.01	12/01/06 10:18	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	11/30/06 14:10	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	12/01/06 10:18	lwt/srs
Saturation Percent	USDA No. 60 (2)	36.40		*	%	0.01	0.1	12/01/06 10:18	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	82.9		*	% Passing	0.1	0.5	12/12/06 6:28	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	67.4		*	% Passing	0.1	0.5	11/27/06 8:28	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.6		*	%	0.1	0.5	11/29/06 6:12	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/11/06 0:00	srs
Sand		53.8		*	%	0.1	0.5	12/11/06 0:00	srs
Silt		27.5		*	%	0.1	0.5	12/11/06 0:00	srs
Texture Classification		L		*				12/11/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 28-48"

ACZ Sample ID: ***L59733-18***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 15:33	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:53	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 19:37	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:48	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:53	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.8			mg/Kg	0.2	1	12/21/06 10:28	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.5	H	*	mg/Kg	0.2	1	12/02/06 18:44	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/02/06 18:44	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.047	H	*	%	0.002	0.009	11/18/06 21:07	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 21:07	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 48-66"

ACZ Sample ID: ***L59733-19***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 18:16	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.63			meq/L	0.01	0.05	12/07/06 5:59	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.33			meq/L	0.02	0.08	12/07/06 5:59	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	140		*	mg/Kg	20	50	12/08/06 3:24	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.088			meq/L	0.008	0.03	12/07/06 5:59	msh
Sodium Absorption Ratio	Calculation	0.27				0.03	0.15	12/21/06 10:29	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.27			meq/L	0.01	0.04	12/07/06 5:59	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/05/06 16:37	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.300		*	mmhos/cm	0.001	0.01	12/01/06 11:39	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	2.6		*	%	0.1	0.5	11/30/06 14:27	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.7		*	units	0.1	0.1	12/01/06 11:39	lwt/srs
Saturation Percent	USDA No. 60 (2)	38.00		*	%	0.01	0.1	12/01/06 11:39	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	76.5		*	% Passing	0.1	0.5	12/12/06 7:44	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.4		*	% Passing	0.1	0.5	11/27/06 12:44	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.9		*	%	0.1	0.5	11/29/06 7:13	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/11/06 0:00	srs
Sand		56.3		*	%	0.1	0.5	12/11/06 0:00	srs
Silt		25.0		*	%	0.1	0.5	12/11/06 0:00	srs
Texture Classification		L		*				12/11/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: D-12 48-66"

ACZ Sample ID: ***L59733-19***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 15:54	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:56	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 19:48	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 17:54	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:56	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.9			mg/Kg	0.2	1	12/21/06 10:29	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.5	H	*	mg/Kg	0.2	1	12/02/06 18:45	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/02/06 18:45	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.034	H	*	%	0.002	0.008	11/18/06 21:09	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	11	H	*	mg/Kg	1	5	11/30/06 21:08	paulb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 0-10"

ACZ Sample ID: ***L59733-20***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 18:24	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.59			meq/L	0.01	0.05	12/07/06 22:18	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.45			meq/L	0.02	0.08	12/07/06 22:18	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	280		*	mg/Kg	20	50	12/08/06 3:28	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.522			meq/L	0.008	0.03	12/07/06 22:18	gme
Sodium Absorption Ratio	Calculation	0.19				0.03	0.15	12/21/06 10:29	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.20			meq/L	0.01	0.04	12/07/06 22:18	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.2		*	%	0.1	0.5	12/05/06 16:59	brg/srs
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.310		*	mmhos/cm	0.001	0.01	12/01/06 13:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	11/30/06 14:43	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.6		*	units	0.1	0.1	12/01/06 13:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	46.80		*	%	0.01	0.1	12/01/06 13:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	75.8		*	% Passing	0.1	0.5	12/12/06 8:59	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	91.8		*	% Passing	0.1	0.5	11/27/06 16:59	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	86.0		*	%	0.1	0.5	11/29/06 8:14	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/11/06 0:00	srs
Sand		57.5		*	%	0.1	0.5	12/11/06 0:00	srs
Silt		30.0		*	%	0.1	0.5	12/11/06 0:00	srs
Texture Classification		L		*				12/11/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 0-10"

ACZ Sample ID: ***L59733-20***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							11/30/06 16:15	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/08/06 9:59	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							11/28/06 20:00	jjr/as
Saturated Paste Extraction	USDA No. 60 (2)							11/29/06 18:00	erf/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/28/06 11:59	lwt/srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.4			mg/Kg	0.2	1	12/21/06 10:29	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.7	H	*	mg/Kg	0.2	1	12/02/06 18:46	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.3	BH	*	mg/Kg	0.1	0.5	12/02/06 18:46	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.160	H	*	%	0.005	0.03	11/18/06 22:48	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	14	H	*	mg/Kg	1	5	11/30/06 21:09	paulb

** Please refer to Qualifier Reports for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59733***

Boron, soluble (Hot Water) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217803													
WG217803ICV	ICV	12/08/06 5:05	II061128-2	2		1.951	mg/L	97.6	90	110			
WG217803ICB	ICB	12/08/06 5:09				U	mg/L		-0.03	0.03			
WG217115PBS	PBS	12/08/06 5:25				U	mg/L		-0.15	0.15			
L59733-01AS	AS	12/08/06 5:37	II061207-3	2.5	.57	3.138	mg/L	102.7	75	125			
L59733-01ASD	ASD	12/08/06 5:41	II061207-3	2.5	.57	3.206	mg/L	105.4	75	125	2.14	20	
L59733-13DUP	DUP	12/08/06 6:21			1.41	1.5	mg/L				6.2	20	

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217718													
WG217718ICV	ICV	12/07/06 4:06	II061128-2	100		97.89	mg/L	97.9	90	110			
WG217718ICB	ICB	12/07/06 4:10				U	mg/L		-0.6	0.6			
L59733-04DUP	DUP	12/07/06 4:42			18.5	20.114	meq/L				8.4	20	
WG217767													
WG217767ICV	ICV	12/07/06 21:50	II061128-2	100		99.54	mg/L	99.5	90	110			
WG217767ICB	ICB	12/07/06 21:54				U	mg/L		-0.6	0.6			
L59733-04DUP	DUP	12/07/06 22:14			19.3	20.487	meq/L				6	20	

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217361													
WG217361PBS	PBS	12/05/06 9:00				U	%		-0.3	0.3			
L59733-01DUP	DUP	12/05/06 9:45			.3	.3	%				0	20	RA

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217371													
L59733-04DUP	DUP	11/30/06 15:24			1.61	1.67	umhos/cm				3.7	20	

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217718													
WG217718ICV	ICV	12/07/06 4:06	II061128-2	100		94.63	mg/L	94.6	90	110			
WG217718ICB	ICB	12/07/06 4:10				U	mg/L		-0.6	0.6			
L59733-04DUP	DUP	12/07/06 4:42			3.87	4.068	meq/L				5	20	
WG217767													
WG217767ICV	ICV	12/07/06 21:50	II061128-2	100		95.97	mg/L	96	90	110			
WG217767ICB	ICB	12/07/06 21:54				U	mg/L		-0.6	0.6			
L59733-04DUP	DUP	12/07/06 22:14			3.99	4.158	meq/L				4.1	20	

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217349													
WG217349LCSS	LCSS	11/30/06 9:16	PCN20880	100		121.35	%						
L59733-20DUP	DUP	11/30/06 15:00			.5	.55	%				9.5	20	RA

Carbon Resources

Project ID:

ACZ Project ID: ***L59733***

Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217513													
WG217513ICV	ICV	12/02/06 18:06	WI060906-3	2.416		2.411	mg/L	99.8	90	110			
WG217513ICB	ICB	12/02/06 18:07				U	mg/L		-0.06	0.06			
WG217513LFB	LFB	12/02/06 18:11	WI060906-4	2		2.126	mg/L	106.3	90	110			
WG217253PBS	PBS	12/02/06 18:12				1.36	mg/Kg		-0.6	0.6			N1
L59733-01DUP	DUP	12/02/06 18:14			4.2	4.16	mg/Kg				1	20	
L59733-02AS	AS	12/02/06 18:17	WI060906-4	20	3.5	24.58	mg/Kg	105.4	75	125			

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217513													
WG217513ICV	ICV	12/02/06 18:06	WI060906-3	.609		.561	mg/L	108.5	90	110			
WG217513ICB	ICB	12/02/06 18:07				U	mg/L		-0.03	0.03			
WG217513LFB	LFB	12/02/06 18:11	WI060906-4	1		1.061	mg/L	106.1	90	110			
WG217253PBS	PBS	12/02/06 18:12				U	mg/Kg		-0.3	0.3			N1
L59733-01DUP	DUP	12/02/06 18:14			.6	.66	mg/Kg				9.5	20	RA
L59733-02AS	AS	12/02/06 18:17	WI060906-4	10	.6	10.75	mg/Kg	101.5	75	125			

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216825													
WG216639ICV	ICV	11/18/06 20:36	WI061027-1	4		3.88	mg/L	97	90	110			
WG216639ICB	ICB	11/18/06 20:37				U	mg/L		-0.3	0.3			
WG216639LFB1	LFB	11/18/06 20:40	WI061027-5	2.5		2.48	%	99.2	85	115			
L59733-01MS	MS	11/18/06 20:42	2XTKN	.05375	.046	.1107	%	120.4	75	125			
L59733-02DUP	DUP	11/18/06 20:44			.133	.1336	%				0.5	20	
WG216639PBS1	PBS	11/18/06 20:52				.0021	%		-0.006	0.006			
WG216639PBS2	PBS	11/18/06 21:11				.003	%		-0.006	0.006			
WG216639LFB2	LFB	11/18/06 21:12	WI061027-5	2.5		2.4	%	96	85	115			

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217692													
L59733-01DUP	DUP	12/08/06 23:51			22.5	22.5	%				0	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217692													
L59733-01DUP	DUP	12/08/06 23:51			50	50	%				0	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217692													
L59733-01DUP	DUP	12/08/06 23:51			27.5	27.5	%				0	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59733***

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217371													
L59733-04DUP	DUP	11/30/06 15:24			7.1	7.05	units				0.7	20	

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217438													
WG217438ICV	ICV	11/30/06 18:55	SCN000224	.65228		.649	mg/L	99.5	90	110			
WG217438ICB	ICB	11/30/06 18:57				.013	mg/L		-0.03	0.03			
WG217441													
WG217441ICV	ICV	11/30/06 20:23	SCN000224	.65228		.681	mg/L	104.4	90	110			
WG217441ICB	ICB	11/30/06 20:25				U	mg/L		-0.03	0.03			
WG217441LFB	LFB	11/30/06 20:26	WI061125-2	.5		.51	mg/Kg	102	85	115			
WG217336PBS	PBS	11/30/06 20:28				5.6	mg/Kg		-3	3			N1
L59733-01DUP	DUP	11/30/06 20:30			13	16.7	mg/Kg				24.9	20	RD
L59733-02AS	AS	11/30/06 20:32	WI061125-2	50	20	67	mg/Kg	94	75	125			

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217482													
WG217336PBS	PBS	12/06/06 12:45				U	mg/L		-60	60			
L59733-01DUP	DUP	12/06/06 12:52			200	200	mg/L				0	20	
L59733-02AS	AS	12/06/06 13:03	II061116-2	4973.4095	250	5501	mg/L	105.6	75	125			
L59733-02ASD	ASD	12/06/06 13:06	II061116-2	4973.4095	250	5822	mg/L	112	75	125	5.67	20	
WG217804													
WG217804ICV	ICV	12/08/06 1:19	II061128-2	20		20.17	mg/L	100.9	90	110			
WG217804ICB	ICB	12/08/06 1:23				.47	mg/L		-0.9	0.9			
WG217336PBS	PBS	12/08/06 1:39				U	mg/L		-60	60			
L59733-01DUP	DUP	12/08/06 1:47			170	190	mg/L				11.1	20	RA
L59733-03AS	AS	12/08/06 1:59	II061207-3	4975.507	170	5097	mg/L	99	75	125			
L59733-03ASD	ASD	12/08/06 2:03	II061207-3	4975.507	170	5109	mg/L	99.3	75	125	0.24	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217718													
WG217718ICV	ICV	12/07/06 4:06	II061128-2	20		19.84	mg/L	99.2	90	110			
WG217718ICB	ICB	12/07/06 4:10				U	mg/L		-0.9	0.9			
L59733-04DUP	DUP	12/07/06 4:42			.174	.1807	meq/L				3.8	20	
WG217767													
WG217767ICV	ICV	12/07/06 21:50	II061128-2	20		20.19	mg/L	101	90	110			
WG217767ICB	ICB	12/07/06 21:54				U	mg/L		-0.9	0.9			
L59733-04DUP	DUP	12/07/06 22:14			.18	.1771	meq/L				1.6	20	

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217371													
L59733-04DUP	DUP	11/30/06 15:24			50.3	53.48	%				6.1	20	

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Inorganic QC Summary

Carbon Resources
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Selenium, soluble (Hot Water) SM3500-Se.C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217424													
WG217424ICV	ICV	12/01/06 9:55	II061127-5	.025		.027	mg/L	108	90	110			
WG217424ICB	ICB	12/01/06 9:59				U	mg/L		-0.003	0.003			
WG217426													
WG217115PBS	PBS	12/01/06 11:39				U	mg/Kg		-0.015	0.015			
L59733-01AS	AS	12/01/06 11:46	II061113-3	.1	U	.1011	mg/Kg	101.1	85	115			
L59733-01ASD	ASD	12/01/06 11:50	II061113-3	.1	U	.1008	mg/Kg	100.8	85	115	0.3	20	
L59733-13DUP	DUP	12/01/06 12:27			U	U	mg/Kg				0	20	RA

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217718													
WG217718ICV	ICV	12/07/06 4:06	II061128-2	100		99.24	mg/L	99.2	90	110			
WG217718ICB	ICB	12/07/06 4:10				U	mg/L		-0.9	0.9			
L59733-04DUP	DUP	12/07/06 4:42			.25	.241	meq/L				3.6	20	
WG217767													
WG217767ICV	ICV	12/07/06 21:50	II061128-2	100		100.03	mg/L	100	90	110			
WG217767ICB	ICB	12/07/06 21:54				U	mg/L		-0.9	0.9			
L59733-04DUP	DUP	12/07/06 22:14			.25	.244	meq/L				2.4	20	

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217212													
WG217212PBS	PBS	11/28/06 12:00				U	%		99.9	100.1			
L59733-20DUP	DUP	11/29/06 9:15			86	85.32	%				0.8	20	

Sulfur Organic Residual M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217420													
L59733-13DUP	DUP	12/01/06 17:00			.22	.22	%				0	20	

Sulfur Pyritic Sulfide M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217420													
L59733-13DUP	DUP	12/01/06 17:00			.07	.05	%				33.3	20	RA

Sulfur Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217420													
L59733-13DUP	DUP	12/01/06 17:00			.1	.12	%				18.2	20	

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Sulfur Total M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217420													
WG217420PBS	PBS	11/30/06 16:00				U	%		-0.03	0.03			
WG217420LCSS	LCSS	11/30/06 18:30	PCN25383	4.24		4.32	%		80	120			
L59733-13DUP	DUP	12/01/06 17:00			.39	.39	%				0	20	

Total Sulfur Minus Sulfate M600/2-78-054 3.2.4

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217420													
L59733-13DUP	DUP	12/01/06 17:00			.29	.27	%				7.1	20	

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ACZ Project ID: ***L59733***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-01	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217482	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ Project ID: ***L59733***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-02	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217482	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-03	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-04	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-05	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-06	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ Project ID: ***L59733***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-07	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

Carbon Resources

ACZ Project ID: ***L59733***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-08	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L59733-09	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-10	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L59733-11	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-12	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-13	WG217803	Boron, soluble (Hot Water)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217426	Selenium, soluble (Hot Water)	SM3500-Se.C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217420	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-14	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L59733-15	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-16	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L59733-17	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-18	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L59733-19	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59733-20	WG217804	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217361	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217349	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217513	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217441	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
			M365.1 - Automated Ascorbic Acid	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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Certification Qualifiers

Carbon Resources

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Metals Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Selenium, soluble (Hot Water)	SM3500-Se.C

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Sulfur Forms	M600/2-78-054 3.2.4
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59733
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59733
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59733-01	D-9A 115-145"									X		
L59733-02	D-9B 0-6"									X		
L59733-03	D-9B 6-12"									X		
L59733-04	D-9B 12-30"									X		
L59733-05	D-9B 30-52"									X		
L59733-06	D-9B 52-80"									X		
L59733-07	D-9B 80-102"									X		
L59733-08	D-10 0-5"									X		
L59733-09	D-10 5-11"									X		
L59733-10	D-10 11-23"									X		
L59733-11	D-10 23-35"									X		
L59733-12	D-11 0-12"									X		
L59733-13	D-11 11-48"									X		
L59733-14	D-11 62-82"									X		
L59733-15	D-12 0-6"									X		
L59733-16	D-12 6-14"									X		
L59733-17	D-12 14-28"									X		
L59733-18	D-12 28-48"									X		
L59733-19	D-12 48-66"									X		
L59733-20	2A-1 0-10"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59733

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

LBC 10.26.06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

Very Fine Sand

analyst: as
date: 12-12-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59733-01	472.47	81.5	40.0	9.3	**18.9**
L59733-02	398.08	82.3	40.0	7.3	**15.0**
L59733-03	421.36	88.2	40.0	8.8	**19.4**
L59733-04	612.70	47.2	40.0	3.1	**3.7**
L59733-05	303.22	72.1	40.0	1.6	**2.9**
L59733-06	461.95	82.7	40.0	10.4	**21.5**
L59733-07	376.62	82.7	40.0	9.8	**20.3**
L59733-08	378.34	81.6	40.0	15.6	**31.8**
L59733-09	452.80	47.4	40.0	7.5	**8.9**
L59733-10	685.40	23.0	40.0	5.2	**3.0**
L59733-11	562.02	18.9	40.0	4.3	**2.0**
L59733-12	469.62	57.9	40.0	8.1	**11.7**
L59733-13	513.03	65.8	40.0	4.2	**6.9**
L59733-14	503.22	32.8	40.0	7.7	**6.3**
L59733-15	269.96	91.0	40.0	10.3	**23.4**
L59733-16	228.31	84.0	40.0	10.8	**22.7**
L59733-17	401.90	69.5	40.0	10.8	**18.8**
L59733-18	323.45	67.4	40.0	10.2	**17.2**
L59733-19	369.49	84.4	40.0	11.2	**23.6**
L59733-20	252.39	91.8	40.0	10.6	**24.3**
dup L59733-01	472.47	81.5	40	9.0	**18.3**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG217205

-sieve53 WG217644

-texture WG217692

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Greg Hunt, Bruce Chesler

Project ID:
ACZ Project ID: L59734

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59734. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59734. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048 (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59734

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 20 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59734. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 10-24"

ACZ Sample ID: ***L59734-01***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 18:50	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.33		*	meq/L	0.01	0.05	12/07/06 1:57	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.51		*	meq/L	0.02	0.08	12/07/06 1:57	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	220		*	mg/Kg	20	50	12/10/06 2:54	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.337		*	meq/L	0.008	0.03	12/07/06 1:57	gme
Sodium Absorption Ratio	Calculation	0.37				0.03	0.15	12/21/06 10:41	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.36		*	meq/L	0.01	0.04	12/07/06 1:57	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/07/06 12:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.287		*	mmhos/cm	0.001	0.01	12/04/06 12:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	12/05/06 9:50	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/04/06 12:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	34.60		*	%	0.01	0.1	12/04/06 12:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.6		*	% Passing	0.1	0.5	12/13/06 8:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	72.0		*	% Passing	0.1	0.5	11/28/06 8:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.6		*	%	0.1	0.5	11/28/06 13:57	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		50.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		30.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 10-24"

ACZ Sample ID: ***L59734-01***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/04/06 18:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:00	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 11:14	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:00	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:00	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.4			mg/Kg	0.2	1	12/21/06 10:41	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	8.0	H	*	mg/Kg	0.2	1	12/08/06 21:42	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 21:42	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.066	H	*	%	0.007	0.04	11/18/06 22:50	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	39	H	*	mg/Kg	1	5	12/09/06 17:26	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 24-44"

ACZ Sample ID: ***L59734-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 19:07	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.26		*	meq/L	0.01	0.05	12/07/06 2:01	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.25		*	meq/L	0.02	0.08	12/07/06 2:01	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	120		*	mg/Kg	20	50	12/10/06 3:02	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.061		*	meq/L	0.008	0.03	12/07/06 2:01	gme
Sodium Absorption Ratio	Calculation	0.20				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.18		*	meq/L	0.01	0.04	12/07/06 2:01	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/07/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.190		*	mmhos/cm	0.001	0.01	12/04/06 14:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	8.1		*	%	0.1	0.5	12/11/06 9:00	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	12/04/06 14:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	44.30		*	%	0.01	0.1	12/04/06 14:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	86.1		*	% Passing	0.1	0.5	12/13/06 9:21	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	83.9		*	% Passing	0.1	0.5	11/28/06 9:44	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.2		*	%	0.1	0.5	11/28/06 14:55	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		27.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		35.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		37.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		CL		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 24-44"

ACZ Sample ID: ***L59734-02***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/04/06 20:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:03	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 11:42	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:03	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:06	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	34			mg/Kg	1	5	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	35	H	*	mg/Kg	1	5	12/08/06 22:29	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:45	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.048	H	*	%	0.002	0.01	11/18/06 21:15	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 17:29	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 44-65"

ACZ Sample ID: ***L59734-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 19:42	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.37		*	meq/L	0.01	0.05	12/07/06 2:05	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.29		*	meq/L	0.02	0.08	12/07/06 2:05	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	90		*	mg/Kg	20	50	12/10/06 3:14	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.084		*	meq/L	0.008	0.03	12/07/06 2:05	gme
Sodium Absorption Ratio	Calculation	0.39				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.36		*	meq/L	0.01	0.04	12/07/06 2:05	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/07/06 16:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.237		*	mmhos/cm	0.001	0.01	12/04/06 16:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	12.2		*	%	0.1	0.5	12/12/06 2:20	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.7		*	units	0.1	0.1	12/04/06 16:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	40.60		*	%	0.01	0.1	12/04/06 16:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	87.7		*	% Passing	0.1	0.5	12/13/06 10:42	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	90.6		*	% Passing	0.1	0.5	11/28/06 11:28	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.0		*	%	0.1	0.5	11/28/06 15:53	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		26.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		42.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		31.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 44-65"

ACZ Sample ID: ***L59734-03***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/04/06 21:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:06	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 11:57	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:06	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:12	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.6			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	8.4	H	*	mg/Kg	0.2	1	12/08/06 21:47	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 21:47	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.024	H	*	%	0.002	0.01	11/18/06 22:29	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	8	H	*	mg/Kg	1	5	12/09/06 17:30	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 65-80"

ACZ Sample ID: ***L59734-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 19:51	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.51		*	meq/L	0.01	0.05	12/07/06 2:09	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.34		*	meq/L	0.02	0.08	12/07/06 2:09	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	60		*	mg/Kg	20	50	12/10/06 3:30	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.075		*	meq/L	0.008	0.03	12/07/06 2:09	gme
Sodium Absorption Ratio	Calculation	0.41				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.40		*	meq/L	0.01	0.04	12/07/06 2:09	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/07/06 17:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.241		*	mmhos/cm	0.001	0.01	12/04/06 18:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	14.8		*	%	0.1	0.5	12/12/06 11:00	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.8		*	units	0.1	0.1	12/04/06 18:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	34.30		*	%	0.01	0.1	12/04/06 18:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	86.5		*	% Passing	0.1	0.5	12/13/06 12:03	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	90.1		*	% Passing	0.1	0.5	11/28/06 13:12	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.1		*	%	0.1	0.5	11/28/06 16:51	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		55.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		25.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-1 65-80"

ACZ Sample ID: ***L59734-04***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/04/06 22:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:09	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 12:11	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:09	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:18	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	6.4			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	7.1	H	*	mg/Kg	0.2	1	12/08/06 21:49	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:49	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.028	H	*	%	0.002	0.01	11/18/06 22:31	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	9	H	*	mg/Kg	1	5	12/09/06 17:32	pjb

** Please refer to Qualifier Reports for detail.*

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Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 0-5"

ACZ Sample ID: ***L59734-05***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 19:59	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.47		*	meq/L	0.01	0.05	12/07/06 2:13	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.46		*	meq/L	0.02	0.08	12/07/06 2:13	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	290		*	mg/Kg	20	50	12/10/06 3:34	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.491		*	meq/L	0.008	0.03	12/07/06 2:13	gme
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.33		*	meq/L	0.01	0.04	12/07/06 2:13	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.8		*	%	0.1	0.5	12/07/06 19:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.305		*	mmhos/cm	0.001	0.01	12/04/06 21:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/05/06 10:41	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/04/06 21:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	44.30		*	%	0.01	0.1	12/04/06 21:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.5		*	% Passing	0.1	0.5	12/13/06 13:25	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.9		*	% Passing	0.1	0.5	11/28/06 14:56	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	87.3		*	%	0.1	0.5	11/28/06 17:49	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		47.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		36.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 0-5"

ACZ Sample ID: ***L59734-05***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/04/06 23:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:12	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 12:25	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:12	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:25	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	5.2			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	6.0	H	*	mg/Kg	0.2	1	12/08/06 21:50	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 21:50	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.072	H	*	%	0.002	0.01	11/18/06 22:32	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 17:33	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 5-14"

ACZ Sample ID: ***L59734-06***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 20:08	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.49		*	meq/L	0.01	0.05	12/07/06 2:17	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.44		*	meq/L	0.02	0.08	12/07/06 2:17	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	450		*	mg/Kg	20	50	12/10/06 3:38	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.906		*	meq/L	0.008	0.03	12/07/06 2:17	gme
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.33		*	meq/L	0.01	0.04	12/07/06 2:17	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	12/07/06 20:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.320		*	mmhos/cm	0.001	0.01	12/04/06 23:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/05/06 11:06	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/04/06 23:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	45.20		*	%	0.01	0.1	12/04/06 23:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	78.0		*	% Passing	0.1	0.5	12/13/06 14:46	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.5		*	% Passing	0.1	0.5	11/28/06 16:41	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	86.3		*	%	0.1	0.5	11/28/06 18:47	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		48.8		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		36.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 5-14"

ACZ Sample ID: ***L59734-06***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 0:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:15	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 12:39	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:15	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:31	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.0			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	7.8	H	*	mg/Kg	0.2	1	12/08/06 21:51	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 21:51	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.22	H	*	%	0.05	0.2	12/14/06 15:13	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	27	H	*	mg/Kg	1	5	12/09/06 17:34	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 14-25"

ACZ Sample ID: ***L59734-07***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 20:16	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.65		*	meq/L	0.01	0.05	12/07/06 2:21	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.23		*	meq/L	0.02	0.08	12/07/06 2:21	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	210		*	mg/Kg	20	50	12/10/06 3:42	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.195		*	meq/L	0.008	0.03	12/07/06 2:21	gme
Sodium Absorption Ratio	Calculation	0.43				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.29		*	meq/L	0.01	0.04	12/07/06 2:21	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/07/06 21:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.155		*	mmhos/cm	0.001	0.01	12/05/06 1:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	12/05/06 11:31	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.9		*	units	0.1	0.1	12/05/06 1:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	32.30		*	%	0.01	0.1	12/05/06 1:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	87.0		*	% Passing	0.1	0.5	12/13/06 16:07	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	64.5		*	% Passing	0.1	0.5	11/28/06 18:25	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.3		*	%	0.1	0.5	11/28/06 19:44	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		35.0		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		46.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		SiL		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 14-25"

ACZ Sample ID: ***L59734-07***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 2:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:18	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 12:54	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:18	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:37	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	47.0			mg/Kg	0.4	2	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	47.7	H	*	mg/Kg	0.4	2	12/08/06 22:32	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:56	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.043	H	*	%	0.002	0.01	11/18/06 22:34	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 17:37	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 25-38"

ACZ Sample ID: ***L59734-08***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 20:25	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.47		*	meq/L	0.01	0.05	12/07/06 2:34	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.23		*	meq/L	0.02	0.08	12/07/06 2:34	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	160		*	mg/Kg	20	50	12/10/06 3:46	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.124		*	meq/L	0.008	0.03	12/07/06 2:34	gme
Sodium Absorption Ratio	Calculation	0.37				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	12/07/06 2:34	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/07/06 23:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.121		*	mmhos/cm	0.001	0.01	12/05/06 3:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 11:56	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.9		*	units	0.1	0.1	12/05/06 3:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	37.80		*	%	0.01	0.1	12/05/06 3:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.4		*	% Passing	0.1	0.5	12/13/06 17:29	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	70.7		*	% Passing	0.1	0.5	11/28/06 20:09	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.1		*	%	0.1	0.5	11/28/06 20:42	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		26.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		37.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		36.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		SiL		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-2 25-38"

ACZ Sample ID: ***L59734-08***
Date Sampled: *10/14/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 3:17	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:22	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 13:08	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:21	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:44	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	41.8			mg/Kg	0.4	2	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	42.5	H	*	mg/Kg	0.4	2	12/08/06 22:33	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:57	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.045	H	*	%	0.005	0.02	11/18/06 22:52	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	10	H	*	mg/Kg	1	5	12/09/06 17:38	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 0-9"

ACZ Sample ID: ***L59734-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 20:34	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.90		*	meq/L	0.01	0.05	12/07/06 2:38	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.28		*	meq/L	0.02	0.08	12/07/06 2:38	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	320		*	mg/Kg	20	50	12/10/06 3:50	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.535		*	meq/L	0.008	0.03	12/07/06 2:38	gme
Sodium Absorption Ratio	Calculation	0.23				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.18		*	meq/L	0.01	0.04	12/07/06 2:38	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.7		*	%	0.1	0.5	12/08/06 0:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.200		*	mmhos/cm	0.001	0.01	12/05/06 6:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/05/06 12:22	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/05/06 6:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	45.50		*	%	0.01	0.1	12/05/06 6:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	72.8		*	% Passing	0.1	0.5	12/13/06 18:50	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	86.8		*	% Passing	0.1	0.5	11/28/06 21:53	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	87.7		*	%	0.1	0.5	11/28/06 21:40	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		11.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Sand		56.3		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Silt		32.5		*	%	0.1	0.5	12/12/06 0:00	lwt/srs
Texture Classification		L		*				12/12/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 0-9"

ACZ Sample ID: ***L59734-09***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 4:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:25	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 13:22	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:24	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:50	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	9.7			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	9.7	H	*	mg/Kg	0.2	1	12/08/06 21:58	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/13/06 19:25	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.074	H	*	%	0.002	0.01	11/18/06 22:36	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	14	H	*	mg/Kg	1	5	12/09/06 17:39	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 9-19"

ACZ Sample ID: ***L59734-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							11/15/06 20:42	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.47		*	meq/L	0.01	0.05	12/07/06 2:42	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.23		*	meq/L	0.02	0.08	12/07/06 2:42	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	240		*	mg/Kg	20	50	12/10/06 3:54	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.205		*	meq/L	0.008	0.03	12/07/06 2:42	gme
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:42	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.20		*	meq/L	0.01	0.04	12/07/06 2:42	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.7		*	%	0.1	0.5	12/08/06 1:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.137		*	mmhos/cm	0.001	0.01	12/05/06 8:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	12/05/06 12:47	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/05/06 8:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	33.60		*	%	0.01	0.1	12/05/06 8:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	82.1		*	% Passing	0.1	0.5	12/13/06 20:11	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	80.7		*	% Passing	0.1	0.5	11/28/06 23:37	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.5		*	%	0.1	0.5	11/28/06 22:38	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		45.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		33.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 9-19"

ACZ Sample ID: ***L59734-10***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 5:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:28	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 13:37	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:27	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 10:56	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	5.1			mg/Kg	0.2	1	12/21/06 10:42	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.8	H	*	mg/Kg	0.2	1	12/08/06 22:00	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:00	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.139	H	*	%	0.005	0.02	11/18/06 22:55	pjb
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	9	H	*	mg/Kg	1	5	12/09/06 17:40	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 19-36"

ACZ Sample ID: ***L59734-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 16:09	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.54		*	meq/L	0.01	0.05	12/07/06 2:46	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.19		*	meq/L	0.02	0.08	12/07/06 2:46	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	110		*	mg/Kg	20	50	12/10/06 3:58	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.111		*	meq/L	0.008	0.03	12/07/06 2:46	gme
Sodium Absorption Ratio	Calculation	0.41				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.25		*	meq/L	0.01	0.04	12/07/06 2:46	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/08/06 3:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.139		*	mmhos/cm	0.001	0.01	12/05/06 10:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5		*	%	0.1	0.5	12/05/06 13:12	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/05/06 10:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	32.00		*	%	0.01	0.1	12/05/06 10:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.6		*	% Passing	0.1	0.5	12/13/06 21:33	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	75.3		*	% Passing	0.1	0.5	11/29/06 1:22	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.7		*	%	0.1	0.5	11/28/06 23:36	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		47.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		30.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 19-36"

ACZ Sample ID: ***L59734-11***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 6:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:31	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 13:51	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:30	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:03	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.1			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.8	H	*	mg/Kg	0.2	1	12/08/06 22:01	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:01	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.010	H	*	%	0.002	0.008	12/04/06 13:33	jlf
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	9	H	*	mg/Kg	1	5	12/09/06 17:42	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 36-52"

ACZ Sample ID: ***L59734-12***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 17:04	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.08		*	meq/L	0.01	0.05	12/07/06 2:50	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.02	0.08	12/07/06 2:50	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	130		*	mg/Kg	20	50	12/10/06 4:02	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.073		*	meq/L	0.008	0.03	12/07/06 2:50	gme
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.28		*	meq/L	0.01	0.04	12/07/06 2:50	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/08/06 4:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.192		*	mmhos/cm	0.001	0.01	12/05/06 12:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/05/06 13:37	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.2		*	units	0.1	0.1	12/05/06 12:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	42.60		*	%	0.01	0.1	12/05/06 12:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.0		*	% Passing	0.1	0.5	12/13/06 22:54	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	61.3		*	% Passing	0.1	0.5	11/29/06 3:06	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.5		*	%	0.1	0.5	11/29/06 0:34	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		28.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		31.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		40.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		SiL		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-3 36-52"

ACZ Sample ID: ***L59734-12***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 7:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:34	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 14:05	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:33	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:09	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	11.1			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	11.8	H	*	mg/Kg	0.2	1	12/08/06 22:02	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:02	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.042	H	*	%	0.002	0.01	12/04/06 13:35	jlf
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	33	H	*	mg/Kg	1	5	12/09/06 17:43	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 0-6"

ACZ Sample ID: ***L59734-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 17:58	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.87		*	meq/L	0.01	0.05	12/07/06 2:54	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.52		*	meq/L	0.02	0.08	12/07/06 2:54	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	340		*	mg/Kg	20	50	12/10/06 4:14	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.675		*	meq/L	0.008	0.03	12/07/06 2:54	gme
Sodium Absorption Ratio	Calculation	0.38				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.42		*	meq/L	0.01	0.04	12/07/06 2:54	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.8		*	%	0.1	0.5	12/08/06 5:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.362		*	mmhos/cm	0.001	0.01	12/05/06 15:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/05/06 14:03	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/05/06 15:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	44.70		*	%	0.01	0.1	12/05/06 15:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.6		*	% Passing	0.1	0.5	12/14/06 0:15	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	80.4		*	% Passing	0.1	0.5	11/29/06 4:50	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	87.1		*	%	0.1	0.5	11/29/06 1:32	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		46.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		37.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 0-6"

ACZ Sample ID: ***L59734-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 8:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:37	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 14:19	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:36	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:15	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	11.4			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	11.4	H	*	mg/Kg	0.2	1	12/08/06 22:03	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction		UH	*	mg/Kg	0.1	0.5	12/13/06 19:27	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.184	H	*	%	0.007	0.04	12/14/06 15:14	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	25	H	*	mg/Kg	1	5	12/09/06 17:44	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 6-12"

ACZ Sample ID: ***L59734-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 18:26	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.15		*	meq/L	0.01	0.05	12/07/06 2:58	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.42		*	meq/L	0.02	0.08	12/07/06 2:58	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	350		*	mg/Kg	20	50	12/10/06 4:17	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.543		*	meq/L	0.008	0.03	12/07/06 2:58	gme
Sodium Absorption Ratio	Calculation	0.33				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.38		*	meq/L	0.01	0.04	12/07/06 2:58	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.4		*	%	0.1	0.5	12/08/06 7:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.358		*	mmhos/cm	0.001	0.01	12/05/06 17:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 14:28	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/05/06 17:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	39.60		*	%	0.01	0.1	12/05/06 17:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	87.5		*	% Passing	0.1	0.5	12/14/06 1:37	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	60.5		*	% Passing	0.1	0.5	11/29/06 6:34	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	89.0		*	%	0.1	0.5	11/29/06 2:29	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		21.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		46.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		32.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 6-12"

ACZ Sample ID: ***L59734-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 10:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:40	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 14:34	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:39	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:22	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	6.5			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	7.1	H	*	mg/Kg	0.2	1	12/08/06 22:05	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 22:05	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.108	H	*	%	0.002	0.01	12/04/06 13:38	jlf
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	14	H	*	mg/Kg	1	5	12/09/06 17:45	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 12-24"

ACZ Sample ID: ***L59734-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 18:53	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.37		*	meq/L	0.01	0.05	12/07/06 3:02	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.02	0.08	12/07/06 3:02	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	240		*	mg/Kg	20	50	12/10/06 4:21	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.256		*	meq/L	0.008	0.03	12/07/06 3:02	gme
Sodium Absorption Ratio	Calculation	0.38				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.21		*	meq/L	0.01	0.04	12/07/06 3:02	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/08/06 8:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.107		*	mmhos/cm	0.001	0.01	12/05/06 19:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	12/05/06 14:53	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/05/06 19:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	39.20		*	%	0.01	0.1	12/05/06 19:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	92.8		*	% Passing	0.1	0.5	12/14/06 2:58	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	45.0		*	% Passing	0.1	0.5	11/29/06 8:19	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.7		*	%	0.1	0.5	11/29/06 3:27	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		31.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		28.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		40.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		SiCL		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 12-24"

ACZ Sample ID: ***L59734-15***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 11:17	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:44	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 14:48	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:42	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:28	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.2			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.9	H	*	mg/Kg	0.2	1	12/08/06 22:06	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:06	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.062	H	*	%	0.002	0.009	12/04/06 13:40	jlf
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	7	H	*	mg/Kg	1	5	12/09/06 17:46	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 24-48"

ACZ Sample ID: ***L59734-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 19:21	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.01	0.05	12/07/06 3:06	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.02	0.08	12/07/06 3:06	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	240		*	mg/Kg	20	50	12/10/06 4:25	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.252		*	meq/L	0.008	0.03	12/07/06 3:06	gme
Sodium Absorption Ratio	Calculation	0.42				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	12/07/06 3:06	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/08/06 9:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.092		*	mmhos/cm	0.001	0.01	12/05/06 21:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 15:19	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/05/06 21:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	47.30		*	%	0.01	0.1	12/05/06 21:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	95.2		*	% Passing	0.1	0.5	12/14/06 4:19	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	39.3		*	% Passing	0.1	0.5	11/29/06 10:03	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	90.7		*	%	0.1	0.5	11/29/06 4:25	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		40.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		22.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		37.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		SiC/SiCL		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-5 24-48"

ACZ Sample ID: ***L59734-16***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 12:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:47	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 15:02	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:45	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:34	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.0			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	7.7	H	*	mg/Kg	0.2	1	12/08/06 22:07	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:07	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.049	H	*	%	0.001	0.006	12/04/06 13:41	jlf
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	8	H	*	mg/Kg	1	5	12/09/06 17:47	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 0-6"

ACZ Sample ID: ***L59734-17***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 20:43	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.14		*	meq/L	0.01	0.05	12/07/06 3:10	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.43		*	meq/L	0.02	0.08	12/07/06 3:10	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	410		*	mg/Kg	20	50	12/10/06 4:29	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.748		*	meq/L	0.008	0.03	12/07/06 3:10	gme
Sodium Absorption Ratio	Calculation	0.16				0.03	0.15	12/21/06 10:43	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.15		*	meq/L	0.01	0.04	12/07/06 3:10	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.2		*	%	0.1	0.5	12/08/06 11:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.231		*	mmhos/cm	0.001	0.01	12/06/06 0:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 15:44	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/06/06 0:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	40.90		*	%	0.01	0.1	12/06/06 0:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.3		*	% Passing	0.1	0.5	12/14/06 5:41	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	91.3		*	% Passing	0.1	0.5	11/29/06 11:47	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	84.3		*	%	0.1	0.5	11/29/06 5:23	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		15.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		47.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		37.5		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 0-6"

ACZ Sample ID: ***L59734-17***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 13:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:50	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 15:17	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:48	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:41	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.2			mg/Kg	0.2	1	12/21/06 10:43	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	7.9	H	*	mg/Kg	0.2	1	12/08/06 22:12	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:12	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.159	H	*	%	0.007	0.03	12/14/06 15:15	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	24	H	*	mg/Kg	1	5	12/09/06 17:50	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 6-12"

ACZ Sample ID: ***L59734-18***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 21:10	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.84		*	meq/L	0.01	0.05	12/07/06 3:22	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.02	0.08	12/07/06 3:22	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	410		*	mg/Kg	20	50	12/10/06 4:33	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.515		*	meq/L	0.008	0.03	12/07/06 3:22	gme
Sodium Absorption Ratio	Calculation	0.21				0.03	0.15	12/21/06 10:44	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.16		*	meq/L	0.01	0.04	12/07/06 3:22	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	12/08/06 12:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.189		*	mmhos/cm	0.001	0.01	12/06/06 2:15	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 16:09	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/06/06 2:15	lwt/srs
Saturation Percent	USDA No. 60 (2)	38.80		*	%	0.01	0.1	12/06/06 2:15	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.8		*	% Passing	0.1	0.5	12/14/06 7:02	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	83.6		*	% Passing	0.1	0.5	11/29/06 13:31	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	90.4		*	%	0.1	0.5	11/29/06 6:21	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		50.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		33.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 6-12"

ACZ Sample ID: ***L59734-18***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:53	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 15:31	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:51	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:47	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	5.3			mg/Kg	0.2	1	12/21/06 10:44	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	6.0	H	*	mg/Kg	0.2	1	12/08/06 22:13	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:13	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.134	H	*	%	0.007	0.04	12/14/06 15:16	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	22	H	*	mg/Kg	1	5	12/09/06 17:52	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 12-24"

ACZ Sample ID: ***L59734-19***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 21:37	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.96		*	meq/L	0.01	0.05	12/07/06 3:26	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.02	0.08	12/07/06 3:26	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	160		*	mg/Kg	20	50	12/10/06 4:37	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.101		*	meq/L	0.008	0.03	12/07/06 3:26	gme
Sodium Absorption Ratio	Calculation	0.43				0.03	0.15	12/21/06 10:44	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.35		*	meq/L	0.01	0.04	12/07/06 3:26	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.0		*	%	0.1	0.5	12/08/06 13:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.180		*	mmhos/cm	0.001	0.01	12/06/06 4:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 16:34	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.2		*	units	0.1	0.1	12/06/06 4:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	39.20		*	%	0.01	0.1	12/06/06 4:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	82.0		*	% Passing	0.1	0.5	12/14/06 8:23	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	86.8		*	% Passing	0.1	0.5	11/29/06 15:15	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.0		*	%	0.1	0.5	11/29/06 7:19	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		45.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		38.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 12-24"

ACZ Sample ID: ***L59734-19***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:56	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 15:45	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:54	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 11:53	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.5			mg/Kg	0.2	1	12/21/06 10:44	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.1	H	*	mg/Kg	0.2	1	12/08/06 22:14	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 22:14	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.10	H	*	%	0.02	0.09	12/14/06 15:17	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	19	H	*	mg/Kg	1	5	12/09/06 17:53	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 24-40"

ACZ Sample ID: ***L59734-20***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/01/06 22:05	jlf/pjb

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.27		*	meq/L	0.01	0.05	12/07/06 3:30	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.44		*	meq/L	0.02	0.08	12/07/06 3:30	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	230		*	mg/Kg	20	50	12/10/06 4:41	gme
Potassium, soluble (Sat. Paste)	M6010B ICP	0.235		*	meq/L	0.008	0.03	12/07/06 3:30	gme
Sodium Absorption Ratio	Calculation	0.42				0.03	0.15	12/21/06 10:44	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.39		*	meq/L	0.01	0.04	12/07/06 3:30	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.0		*	%	0.1	0.5	12/08/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.216		*	mmhos/cm	0.001	0.01	12/06/06 6:45	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.7		*	%	0.1	0.5	12/05/06 17:00	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/06/06 6:45	lwt/srs
Saturation Percent	USDA No. 60 (2)	42.80		*	%	0.01	0.1	12/06/06 6:45	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.4		*	% Passing	0.1	0.5	12/14/06 9:45	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.3		*	% Passing	0.1	0.5	11/29/06 17:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.6		*	%	0.1	0.5	11/29/06 8:17	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Sand		45.0		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Silt		38.8		*	%	0.1	0.5	12/13/06 0:00	lwt/srs
Texture Classification		L		*				12/13/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 24-40"

ACZ Sample ID: ***L59734-20***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:59	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/07/06 15:59	rje/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/04/06 12:57	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							11/30/06 12:00	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	6.1			mg/Kg	0.2	1	12/21/06 10:44	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	6.8	H	*	mg/Kg	0.2	1	12/08/06 22:16	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:16	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.111	H	*	%	0.006	0.03	12/14/06 15:18	jag
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	23	H	*	mg/Kg	1	5	12/09/06 17:54	pjb

** Please refer to Qualifier Reports for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59734***

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217640													
WG217640ICV	ICV	12/07/06 1:37	II061128-2	100		98.25	mg/L	98.3	90	110			
WG217640ICB	ICB	12/07/06 1:41				U	mg/L		-0.6	0.6			
L59734-20DUP	DUP	12/07/06 3:34			1.27	1.796	meq/L				34.3	20	RC

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217769													
WG217769PBS	PBS	12/07/06 11:00				U	%		-0.3	0.3			
L59734-01DUP	DUP	12/07/06 13:40			.4	.4	%				0	20	RA

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217538													
L59734-20DUP	DUP	12/06/06 9:00			.216	.3	mmhos/cm				32.6	20	RC

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217640													
WG217640ICV	ICV	12/07/06 1:37	II061128-2	100		94.93	mg/L	94.9	90	110			
WG217640ICB	ICB	12/07/06 1:41				U	mg/L		-0.6	0.6			
L59734-20DUP	DUP	12/07/06 3:34			.44	.574	meq/L				26.4	20	RC

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217580													
WG217580LCSS	LCSS	12/05/06 9:25	PCN20880	100		100.16	%						
L59734-01DUP	DUP	12/05/06 10:15			.5	.55	%				9.5	20	RA
WG217923													
L59734-02DUP	DUP	12/11/06 17:40			8.1	7.98	%				1.5	20	
WG217923LCSS	LCSS	12/13/06 4:20	PCN20880	100		111.72	%						
WG217923PBS	PBS	12/13/06 13:00				U	%		-0.1	0.1			

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59734***

Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	2.416		2.249	mg/L	93.1	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.06	0.06			
WG217895													
WG217895ICV	ICV	12/08/06 21:37	WI061207-1	2.416		2.3	mg/L	95.2	90	110			
WG217895ICB	ICB	12/08/06 21:39				U	mg/L		-0.06	0.06			
WG217895LFB1	LFB	12/08/06 21:40	WI060906-4	2		2.028	mg/Kg	101.4	85	115			
WG217693PBS	PBS	12/08/06 21:41				1.73	mg/Kg		-0.6	0.6			N1
L59734-01DUP	DUP	12/08/06 21:44			8	8	mg/Kg				0	20	
WG217895LFB2	LFB	12/08/06 22:18	WI060906-4	2		2.067	mg/Kg	103.4	85	115			
L59736-01DUP	DUP	12/08/06 22:21			4.8	4.89	mg/Kg				1.9	20	
L59736-02AS	AS	12/08/06 22:23	WI060906-4	20	4.9	24.57	mg/Kg	98.4	75	125			
L59734-02AS	AS	12/08/06 22:30	WI060906-4	100	35	138.7	mg/Kg	103.7	75	125			

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	.609		.618	mg/L	101.5	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.03	0.03			
WG217895													
WG217895ICV	ICV	12/08/06 21:37	WI061207-1	.609		.622	mg/L	102.1	90	110			
WG217895ICB	ICB	12/08/06 21:39				U	mg/L		-0.03	0.03			
WG217895LFB1	LFB	12/08/06 21:40	WI060906-4	1		.996	mg/Kg	99.6	85	115			
L59734-01DUP	DUP	12/08/06 21:44			.6	.66	mg/Kg				9.5	20	RA
L59734-02AS	AS	12/08/06 21:46	WI060906-4	10	.7	10.46	mg/Kg	97.6	75	125			
WG217895LFB2	LFB	12/08/06 22:18	WI060906-4	1		1.017	mg/Kg	101.7	85	115			
L59736-01DUP	DUP	12/08/06 22:21			.7	.7	mg/Kg				0	20	RA
L59736-02AS	AS	12/08/06 22:23	WI060906-4	10	.5	9.53	mg/Kg	90.3	75	125			
WG218122													
WG218122ICV	ICV	12/13/06 19:17	WI061207-1	.609		.595	mg/L	97.7	90	110			
WG218122ICB	ICB	12/13/06 19:19				U	mg/L		-0.03	0.03			
WG218122LFB	LFB	12/13/06 19:20	WI060906-4	1		.986	mg/Kg	98.6	85	115			
WG217693PBS	PBS	12/13/06 19:21				.52	mg/Kg		-0.3	0.3			N1
L59734-01DUP	DUP	12/13/06 19:24			.7	.62	mg/Kg				12.1	20	RA
L59734-09AS	AS	12/13/06 19:26	WI060906-4	10	U	9.44	mg/Kg	94.4	75	125			

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59734***

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG216825													
WG216639ICV	ICV	11/18/06 20:36	WI061027-1	4		3.88	mg/L	97	90	110			
WG216639ICB	ICB	11/18/06 20:37				U	mg/L		-0.3	0.3			
WG216639LFB1	LFB	11/18/06 20:40	WI061027-5	2.5		2.48	%	99.2	85	115			
WG216639PBS1	PBS	11/18/06 20:52				.0021	%		-0.006	0.006			
WG216639PBS2	PBS	11/18/06 21:11				.003	%		-0.006	0.006			
WG216639LFB2	LFB	11/18/06 21:12	WI061027-5	2.5		2.4	%	96	85	115			
L59734-02DUP	DUP	11/18/06 22:28			.048	.048	%				0	20	
L59734-01MS	MS	11/18/06 22:51	5XPTSTKN	.035	.066	.1579	%	262.6	75	125			M1
WG217529													
WG217529ICV1	ICV	12/04/06 12:17	WI061129-2	4		3.79	mg/L	94.8	90	110			
WG217469ICB	ICB	12/04/06 12:18				U	mg/L		-0.3	0.3			
WG217529ICV2	ICV	12/04/06 13:11	WI061129-2	4		3.75	mg/L	93.8	90	110			
WG217529ICB1	ICB	12/04/06 13:12				U	mg/L		-0.3	0.3			
WG217539													
WG217470ICB	ICB	12/04/06 13:29				U	mg/L		-0.3	0.3			
WG217470PBS	PBS	12/04/06 13:31				.0031	%		-0.006	0.006			
WG217470LFB	LFB	12/04/06 13:32	WI061129-6	2.5		2.2	%	88	85	115			
L59734-11MS	MS	12/04/06 13:34	WI061129-6	.0375	.01	.03	%	53.3	75	125			M2
L59734-12DUP	DUP	12/04/06 13:36			.042	.0527	%				22.6	20	RD
WG218152													
WG218152ICV1	ICV	12/14/06 15:10	WI061129-2	4		3.93	mg/L	98.3	90	110			
WG218073ICB	ICB	12/14/06 15:12				U	mg/L		-0.3	0.3			
WG218073LFB	LFB	12/14/06 15:20	WI061129-6	2.5		2.66	%	106.4	85	115			
L60098-01DUP	DUP	12/14/06 15:29			6.7	6.97	%				4	20	

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217996													
L59734-01DUP	DUP	12/12/06 11:02			20	20	%				0	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217996													
L59734-01DUP	DUP	12/12/06 11:02			50	51.3	%				2.6	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217996													
L59734-01DUP	DUP	12/12/06 11:02			30	28.8	%				4.1	20	

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217538													
L59734-20DUP	DUP	12/06/06 9:00			7	7.04	units				0.6	20	

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59734***

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217910													
WG217910ICV	ICV	12/09/06 17:21	SCN000224	.65228		.605	mg/L	92.8	90	110			
WG217910ICB	ICB	12/09/06 17:23				U	mg/L		-0.03	0.03			
WG217910LFB	LFB	12/09/06 17:24	WI061125-2	.5		.495	mg/Kg	99	85	115			
WG217564PBS	PBS	12/09/06 17:25				3.5	mg/Kg		-3	3			N1
L59734-01AS	AS	12/09/06 17:27	WI061125-2	50	39	63.2	mg/Kg	48.4	75	125			M2
L59734-01DUP	DUP	12/09/06 17:28			39	37.8	mg/Kg				3.1	20	

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217909													
WG217909ICV	ICV	12/10/06 2:30	II061128-2	20		20.37	mg/L	101.9	90	110			
WG217909ICB	ICB	12/10/06 2:34				U	mg/L		-0.9	0.9			
WG217564PBS	PBS	12/10/06 2:50				U	mg/L		-60	60			
L59734-01DUP	DUP	12/10/06 2:58			220	210	mg/L				4.7	20	
L59734-02AS	AS	12/10/06 3:06	II061207-3	4975.507	120	4953	mg/L	97.1	75	125			
L59734-02ASD	ASD	12/10/06 3:10	II061207-3	4975.507	120	5270	mg/L	103.5	75	125	6.2	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217640													
WG217640ICV	ICV	12/07/06 1:37	II061128-2	20		20.15	mg/L	100.8	90	110			
WG217640ICB	ICB	12/07/06 1:41				U	mg/L		-0.9	0.9			
L59734-20DUP	DUP	12/07/06 3:34			.235	.2939	meq/L				22.3	20	RC

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217538													
L59734-20DUP	DUP	12/06/06 9:00			42.8	41.17	%				3.9	20	

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217640													
WG217640ICV	ICV	12/07/06 1:37	II061128-2	100		99.19	mg/L	99.2	90	110			
WG217640ICB	ICB	12/07/06 1:41				U	mg/L		-0.9	0.9			
L59734-20DUP	DUP	12/07/06 3:34			.39	.52	meq/L				28.5	20	RC

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217225													
WG217225PBS	PBS	11/28/06 13:00				U	%		99.9	100.1			
L59734-20DUP	DUP	11/29/06 9:14			93.6	92.95	%				0.7	20	

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59734***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-01	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59734***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-02	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59734***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-03	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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L59734-04	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-05	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-06	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-07	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-08	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-09	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG218122	Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-10	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG216825	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-11	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217539	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-12	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217539	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-13	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG218122	Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-14	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217539	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-15	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217539	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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L59734-16	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217539	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
			M351.2 - TKN by Block Digester	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M351.2 - TKN by Block Digester	RD	For a solid matrix, the spike duplicate RPD exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-17	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-18	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-19	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59734-20	WG217640	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217909	Potassium, extractable (AB-DTPA)	M6010B ICP	ZG	The ICP Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG217640	Potassium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217769	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217538	Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217580	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG218152	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217910	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Carbon Resources

ACZ Project ID: ***L59734***

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59734
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59734
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59734-01	2A-1 10-24"									X		
L59734-02	2A-1 24-44"									X		
L59734-03	2A-1 44-65"									X		
L59734-04	2A-1 65-80"									X		
L59734-05	2A-2 0-5"									X		
L59734-06	2A-2 5-14"									X		
L59734-07	2A-2 14-25"									X		
L59734-08	2A-2 25-38"									X		
L59734-09	2A-3 0-9"									X		
L59734-10	2A-3 9-19"									X		
L59734-11	2A-3 19-36"									X		
L59734-12	2A-3 36-52"									X		
L59734-13	2A-5 0-6"									X		
L59734-14	2A-5 6-12"									X		
L59734-15	2A-5 12-24"									X		
L59734-16	2A-5 24-48"									X		
L59734-17	2A-6 0-6"									X		
L59734-18	2A-6 6-12"									X		
L59734-19	2A-6 12-24"									X		
L59734-20	2A-6 24-40"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59734

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

LBC 10·26·06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

Very Fine Sand

analyst: as
date: 12-19-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59734-01	579.28	72.0	40.0	8.6	**15.5**
L59734-02	520.45	83.9	40.0	6.7	**14.1**
L59734-03	542.08	90.6	40.0	5.4	**12.2**
L59734-04	454.40	90.1	40.0	6.0	**13.5**
L59734-05	453.77	88.9	40.0	8.8	**19.6**
L59734-06	416.31	88.5	40.0	9.9	**21.9**
L59734-07	540.48	64.5	40.0	8.1	**13.1**
L59734-08	587.54	70.7	40.0	8.8	**15.6**
L59734-09	529.95	86.8	40.0	12.5	**27.1**
L59734-10	554.14	80.7	40.0	8.9	**18.0**
L59734-11	556.67	75.3	40.0	10.3	**19.4**
L59734-12	536.72	61.3	40.0	5.9	**9.0**
L59734-13	382.20	80.4	40.0	9.6	**19.3**
L59734-14	527.81	60.5	40.0	8.3	**12.6**
L59734-15	545.67	45.0	40.0	6.4	**7.2**
L59734-16	467.60	39.3	40.0	4.9	**4.8**
L59734-17	327.47	91.3	40.0	8.6	**19.6**
L59734-18	470.16	83.6	40.0	9.2	**19.2**
L59734-19	555.68	86.8	40.0	8.3	**18.0**
L59734-20	586.68	79.3	40.0	7.8	**15.5**
dup L59734-01	579.28	72.0	40.0	8.8	**15.8**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG217375

-sieve53 WG217376

-texture WG217996

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Greg Hunt, Bruce Chesler

Project ID:
ACZ Project ID: L59735

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59735. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59735. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048 (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59735

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 20 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59735. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 40-60"

ACZ Sample ID: ***L59735-01***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 0:06	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.54			meq/L	0.01	0.05	12/07/06 23:10	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.73			meq/L	0.02	0.08	12/07/06 23:10	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	190		*	mg/Kg	20	50	12/12/06 6:55	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.391			meq/L	0.008	0.03	12/07/06 23:10	gme
Sodium Absorption Ratio	Calculation	1.39				0.03	0.15	12/21/06 10:59	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	1.48		*	meq/L	0.01	0.04	12/07/06 23:10	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/07/06 12:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.512		*	mmhos/cm	0.001	0.01	12/06/06 17:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.4		*	%	0.1	0.5	12/08/06 10:28	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.9		*	units	0.1	0.1	12/06/06 17:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	31.60		*	%	0.01	0.1	12/06/06 17:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	85.2		*	% Passing	0.1	0.5	12/14/06 10:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	85.2		*	% Passing	0.1	0.5	11/30/06 8:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.9		*	%	0.1	0.5	12/06/06 17:51	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		25.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		50.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		25.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 40-60"

ACZ Sample ID: ***L59735-01***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:00	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 9:17	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:00	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:00	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.9			mg/Kg	0.2	1	12/21/06 10:59	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.9	H	*	mg/Kg	0.2	1	12/08/06 20:46	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	1.0	H	*	mg/Kg	0.1	0.5	12/08/06 20:46	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.043	H	*	%	0.001	0.006	12/08/06 17:19	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	31	H	*	mg/Kg	1	5	12/09/06 18:05	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 60-80"

ACZ Sample ID: ***L59735-02***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 0:36	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.99			meq/L	0.01	0.05	12/07/06 23:14	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.64			meq/L	0.02	0.08	12/07/06 23:14	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	180		*	mg/Kg	20	50	12/12/06 7:03	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.291			meq/L	0.008	0.03	12/07/06 23:14	gme
Sodium Absorption Ratio	Calculation	1.09				0.03	0.15	12/21/06 10:59	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.98		*	meq/L	0.01	0.04	12/07/06 23:14	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/07/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.352		*	mmhos/cm	0.001	0.01	12/06/06 17:54	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	12/08/06 10:42	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.9		*	units	0.1	0.1	12/06/06 17:54	lwt/srs
Saturation Percent	USDA No. 60 (2)	32.90		*	%	0.01	0.1	12/06/06 17:54	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	86.5		*	% Passing	0.1	0.5	12/14/06 15:06	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	76.5		*	% Passing	0.1	0.5	11/30/06 9:44	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.4		*	%	0.1	0.5	12/06/06 19:34	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		25.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		47.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		27.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-6 60-80"

ACZ Sample ID: ***L59735-02***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:03	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 9:51	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:03	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:09	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.6			mg/Kg	0.2	1	12/21/06 10:59	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.4	H	*	mg/Kg	0.2	1	12/08/06 20:49	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 20:49	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.031	H	*	%	0.002	0.008	12/08/06 17:20	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	28	H	*	mg/Kg	1	5	12/09/06 18:07	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 0-7"

ACZ Sample ID: ***L59735-03***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 1:06	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.24			meq/L	0.01	0.05	12/07/06 23:18	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.45			meq/L	0.02	0.08	12/07/06 23:18	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	320		*	mg/Kg	20	50	12/12/06 7:25	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.744			meq/L	0.008	0.03	12/07/06 23:18	gme
Sodium Absorption Ratio	Calculation	0.55				0.03	0.15	12/21/06 10:59	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.51		*	meq/L	0.01	0.04	12/07/06 23:18	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.2		*	%	0.1	0.5	12/07/06 16:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.350		*	mmhos/cm	0.001	0.01	12/06/06 18:48	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/08/06 10:57	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/06/06 18:48	lwt/srs
Saturation Percent	USDA No. 60 (2)	47.80		*	%	0.01	0.1	12/06/06 18:48	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	75.8		*	% Passing	0.1	0.5	12/14/06 20:12	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	87.6		*	% Passing	0.1	0.5	11/30/06 11:28	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	86.4		*	%	0.1	0.5	12/06/06 20:25	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		55.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		25.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 0-7"

ACZ Sample ID: ***L59735-03***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:06	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 10:08	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:06	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:18	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.6			mg/Kg	0.2	1	12/21/06 10:59	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.1	H	*	mg/Kg	0.2	1	12/08/06 20:50	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.5	H	*	mg/Kg	0.1	0.5	12/08/06 20:50	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.146	H	*	%	0.009	0.05	12/08/06 18:07	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 18:09	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 7-20"

ACZ Sample ID: ***L59735-04***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 1:36	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.45			meq/L	0.01	0.05	12/07/06 23:22	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.49			meq/L	0.02	0.08	12/07/06 23:22	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	260		*	mg/Kg	20	50	12/12/06 7:28	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.596			meq/L	0.008	0.03	12/07/06 23:22	gme
Sodium Absorption Ratio	Calculation	0.43				0.03	0.15	12/21/06 11:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.43		*	meq/L	0.01	0.04	12/07/06 23:22	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.6		*	%	0.1	0.5	12/07/06 17:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.400		*	mmhos/cm	0.001	0.01	12/06/06 19:42	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	12/08/06 11:11	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/06/06 19:42	lwt/srs
Saturation Percent	USDA No. 60 (2)	37.40		*	%	0.01	0.1	12/06/06 19:42	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	77.4		*	% Passing	0.1	0.5	12/15/06 1:18	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	86.9		*	% Passing	0.1	0.5	11/30/06 13:12	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.8		*	%	0.1	0.5	12/06/06 21:17	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		51.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		26.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 7-20"

ACZ Sample ID: ***L59735-04***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:09	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 10:25	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:09	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:28	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.8			mg/Kg	0.2	1	12/21/06 11:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.5	H	*	mg/Kg	0.2	1	12/08/06 20:52	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 20:52	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.056	H	*	%	0.001	0.006	12/08/06 17:22	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 18:10	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 20-38"

ACZ Sample ID: ***L59735-05***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 2:05	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.06			meq/L	0.01	0.05	12/07/06 23:26	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.41			meq/L	0.02	0.08	12/07/06 23:26	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	170		*	mg/Kg	20	50	12/12/06 7:32	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.298			meq/L	0.008	0.03	12/07/06 23:26	gme
Sodium Absorption Ratio	Calculation	0.43				0.03	0.15	12/21/06 11:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.37		*	meq/L	0.01	0.04	12/07/06 23:26	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.3	B	*	%	0.1	0.5	12/07/06 19:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.281		*	mmhos/cm	0.001	0.01	12/06/06 20:36	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	12/08/06 11:25	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/06/06 20:36	lwt/srs
Saturation Percent	USDA No. 60 (2)	34.20		*	%	0.01	0.1	12/06/06 20:36	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	79.5		*	% Passing	0.1	0.5	12/15/06 6:25	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.4		*	% Passing	0.1	0.5	11/30/06 14:56	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.1		*	%	0.1	0.5	12/06/06 22:08	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		23.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		50.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		26.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2A-7 20-38"

ACZ Sample ID: ***L59735-05***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:12	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 10:42	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:12	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:37	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	1.9			mg/Kg	0.2	1	12/21/06 11:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	2.7	H	*	mg/Kg	0.2	1	12/08/06 20:53	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 20:53	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.043	H	*	%	0.001	0.006	12/08/06 17:23	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	14	H	*	mg/Kg	1	5	12/09/06 18:12	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 0-9"

ACZ Sample ID: ***L59735-06***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 2:35	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.11			meq/L	0.01	0.05	12/07/06 23:30	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.42			meq/L	0.02	0.08	12/07/06 23:30	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	310		*	mg/Kg	20	50	12/12/06 7:36	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.752			meq/L	0.008	0.03	12/07/06 23:30	gme
Sodium Absorption Ratio	Calculation	0.18				0.03	0.15	12/21/06 11:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.16		*	meq/L	0.01	0.04	12/07/06 23:30	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	12/07/06 20:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.298		*	mmhos/cm	0.001	0.01	12/06/06 21:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/08/06 11:39	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/06/06 21:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	49.70		*	%	0.01	0.1	12/06/06 21:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	78.8		*	% Passing	0.1	0.5	12/15/06 11:31	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.9		*	% Passing	0.1	0.5	11/30/06 16:41	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	82.1		*	%	0.1	0.5	12/06/06 23:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		58.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		21.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 0-9"

ACZ Sample ID: ***L59735-06***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:15	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 11:00	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:15	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:47	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	7.9			mg/Kg	0.2	1	12/21/06 11:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	8.5	H	*	mg/Kg	0.2	1	12/08/06 20:54	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 20:54	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.173	H	*	%	0.006	0.03	12/08/06 18:11	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	17	H	*	mg/Kg	1	5	12/09/06 18:13	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 9-19"

ACZ Sample ID: ***L59735-07***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 3:05	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.67			meq/L	0.01	0.05	12/07/06 23:34	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.22			meq/L	0.02	0.08	12/07/06 23:34	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	150		*	mg/Kg	20	50	12/12/06 7:39	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.107			meq/L	0.008	0.03	12/07/06 23:34	gme
Sodium Absorption Ratio	Calculation	0.37				0.03	0.15	12/21/06 11:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.25		*	meq/L	0.01	0.04	12/07/06 23:34	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/07/06 21:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.151		*	mmhos/cm	0.001	0.01	12/06/06 22:24	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.9		*	%	0.1	0.5	12/08/06 11:54	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/06/06 22:24	lwt/srs
Saturation Percent	USDA No. 60 (2)	41.00		*	%	0.01	0.1	12/06/06 22:24	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	91.3		*	% Passing	0.1	0.5	12/15/06 16:37	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	39.9		*	% Passing	0.1	0.5	11/30/06 18:25	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.1		*	%	0.1	0.5	12/06/06 23:51	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		33.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		31.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		35.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		SiCL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 9-19"

ACZ Sample ID: ***L59735-07***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:18	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 11:17	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:18	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 9:56	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.2			mg/Kg	0.2	1	12/21/06 11:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.1	H	*	mg/Kg	0.2	1	12/08/06 20:59	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 20:59	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.064	H	*	%	0.001	0.007	12/08/06 17:26	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	5	BH	*	mg/Kg	1	5	12/09/06 18:16	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 19-33"

ACZ Sample ID: ***L59735-08***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 3:35	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.42			meq/L	0.01	0.05	12/07/06 23:46	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.35			meq/L	0.02	0.08	12/07/06 23:46	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	120		*	mg/Kg	20	50	12/12/06 7:43	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.081			meq/L	0.008	0.03	12/07/06 23:46	gme
Sodium Absorption Ratio	Calculation	0.44				0.03	0.15	12/21/06 11:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.42		*	meq/L	0.01	0.04	12/07/06 23:46	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.5		*	%	0.1	0.5	12/07/06 23:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.293		*	mmhos/cm	0.001	0.01	12/06/06 23:18	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	12/08/06 12:08	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.1		*	units	0.1	0.1	12/06/06 23:18	lwt/srs
Saturation Percent	USDA No. 60 (2)	51.60		*	%	0.01	0.1	12/06/06 23:18	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	90.5		*	% Passing	0.1	0.5	12/15/06 21:44	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.6		*	% Passing	0.1	0.5	11/30/06 20:09	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	93.1		*	%	0.1	0.5	12/07/06 0:42	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		43.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		16.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		40.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		SiCL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 19-33"

ACZ Sample ID: ***L59735-08***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:17	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:22	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 11:34	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:21	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:06	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.2			mg/Kg	0.2	1	12/21/06 11:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.1	H	*	mg/Kg	0.2	1	12/08/06 21:00	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 21:00	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.071	H	*	%	0.002	0.008	12/08/06 17:27	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	6	H	*	mg/Kg	1	5	12/09/06 18:17	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 33-51"

ACZ Sample ID: ***L59735-09***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 4:05	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	2.52			meq/L	0.01	0.05	12/07/06 23:50	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.58			meq/L	0.02	0.08	12/07/06 23:50	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	70		*	mg/Kg	20	50	12/12/06 7:46	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.061			meq/L	0.008	0.03	12/07/06 23:50	gme
Sodium Absorption Ratio	Calculation	0.24				0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.31		*	meq/L	0.01	0.04	12/07/06 23:50	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.3	B	*	%	0.1	0.5	12/08/06 0:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.416		*	mmhos/cm	0.001	0.01	12/07/06 0:12	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	6.1		*	%	0.1	0.5	12/12/06 19:40	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.6		*	units	0.1	0.1	12/07/06 0:12	lwt/srs
Saturation Percent	USDA No. 60 (2)	43.40		*	%	0.01	0.1	12/07/06 0:12	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	84.3		*	% Passing	0.1	0.5	12/16/06 2:50	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	88.3		*	% Passing	0.1	0.5	11/30/06 21:53	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.9		*	%	0.1	0.5	12/07/06 1:34	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		33.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		30.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		36.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		SiCL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 2B-1 33-51"

ACZ Sample ID: ***L59735-09***
Date Sampled: *10/18/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:25	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 11:51	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:24	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:15	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.4			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.3	H	*	mg/Kg	0.2	1	12/08/06 21:01	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 21:01	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.037	H	*	%	0.001	0.006	12/08/06 17:28	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	3	BH	*	mg/Kg	1	5	12/09/06 18:18	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 0-6"

ACZ Sample ID: ***L59735-10***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 5:34	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.15			meq/L	0.01	0.05	12/07/06 23:54	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.78			meq/L	0.02	0.08	12/07/06 23:54	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	430		*	mg/Kg	20	50	12/12/06 7:50	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	1.190			meq/L	0.008	0.03	12/07/06 23:54	gme
Sodium Absorption Ratio	Calculation	0.07	B			0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.11		*	meq/L	0.01	0.04	12/07/06 23:54	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.6		*	%	0.1	0.5	12/08/06 1:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.544		*	mmhos/cm	0.001	0.01	12/07/06 1:06	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/08/06 12:22	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.8		*	units	0.1	0.1	12/07/06 1:06	lwt/srs
Saturation Percent	USDA No. 60 (2)	59.20		*	%	0.01	0.1	12/07/06 1:06	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	79.4		*	% Passing	0.1	0.5	12/16/06 7:56	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	92.5		*	% Passing	0.1	0.5	11/30/06 23:37	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	76.9		*	%	0.1	0.5	12/07/06 2:25	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		20.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		36.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		43.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		SiL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 0-6"

ACZ Sample ID: ***L59735-10***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:28	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 12:08	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:27	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:25	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	5.4			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	6.1	H	*	mg/Kg	0.2	1	12/08/06 21:03	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:03	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.269	H	*	%	0.008	0.04	12/08/06 18:12	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	32	H	*	mg/Kg	1	5	12/09/06 18:19	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 6-17"

ACZ Sample ID: ***L59735-11***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 6:04	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.11			meq/L	0.01	0.05	12/07/06 23:58	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.36			meq/L	0.02	0.08	12/07/06 23:58	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	210		*	mg/Kg	20	50	12/12/06 7:54	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.362			meq/L	0.008	0.03	12/07/06 23:58	gme
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.10		*	meq/L	0.01	0.04	12/07/06 23:58	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.6		*	%	0.1	0.5	12/08/06 3:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.251		*	mmhos/cm	0.001	0.01	12/07/06 2:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.3	B	*	%	0.1	0.5	12/08/06 12:37	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.5		*	units	0.1	0.1	12/07/06 2:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	45.80		*	%	0.01	0.1	12/07/06 2:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	77.0		*	% Passing	0.1	0.5	12/16/06 13:03	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	92.6		*	% Passing	0.1	0.5	12/01/06 1:22	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	97.0		*	%	0.1	0.5	12/07/06 3:17	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		36.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		45.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		SiL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 6-17"

ACZ Sample ID: ***L59735-11***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:31	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 12:25	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:30	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:34	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.2			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.9	H	*	mg/Kg	0.2	1	12/08/06 21:04	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:04	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.053	H	*	%	0.001	0.007	12/08/06 17:32	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	27	H	*	mg/Kg	1	5	12/09/06 18:20	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 17-28"

ACZ Sample ID: ***L59735-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 6:33	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.55			meq/L	0.01	0.05	12/08/06 0:02	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.27			meq/L	0.02	0.08	12/08/06 0:02	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	190		*	mg/Kg	20	50	12/12/06 7:57	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.249			meq/L	0.008	0.03	12/08/06 0:02	gme
Sodium Absorption Ratio	Calculation	0.15				0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.10		*	meq/L	0.01	0.04	12/08/06 0:02	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/08/06 4:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.161		*	mmhos/cm	0.001	0.01	12/07/06 2:54	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.3	B	*	%	0.1	0.5	12/08/06 12:51	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.4		*	units	0.1	0.1	12/07/06 2:54	lwt/srs
Saturation Percent	USDA No. 60 (2)	39.50		*	%	0.01	0.1	12/07/06 2:54	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	79.4		*	% Passing	0.1	0.5	12/16/06 18:09	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	86.2		*	% Passing	0.1	0.5	12/01/06 3:06	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.1		*	%	0.1	0.5	12/07/06 4:08	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		22.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		40.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		37.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 17-28"

ACZ Sample ID: ***L59735-12***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:34	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 12:42	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:33	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:44	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.9			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.5	H	*	mg/Kg	0.2	1	12/08/06 21:05	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 21:05	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.036	H	*	%	0.001	0.006	12/08/06 17:33	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	19	H	*	mg/Kg	1	5	12/09/06 18:22	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 28-60"

ACZ Sample ID: ***L59735-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 7:03	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.89			meq/L	0.01	0.05	12/08/06 0:06	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.24			meq/L	0.02	0.08	12/08/06 0:06	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	130			mg/Kg	20	50	12/12/06 13:47	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.069			meq/L	0.008	0.03	12/08/06 0:06	gme
Sodium Absorption Ratio	Calculation	0.51				0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.39		*	meq/L	0.01	0.04	12/08/06 0:06	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/08/06 5:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.217		*	mmhos/cm	0.001	0.01	12/07/06 3:48	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.5	B	*	%	0.1	0.5	12/08/06 13:05	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.7		*	units	0.1	0.1	12/07/06 3:48	lwt/srs
Saturation Percent	USDA No. 60 (2)	40.90		*	%	0.01	0.1	12/07/06 3:48	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	80.9		*	% Passing	0.1	0.5	12/16/06 23:15	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.0		*	% Passing	0.1	0.5	12/01/06 4:50	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	92.4		*	%	0.1	0.5	12/07/06 5:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		28.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		36.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		35.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		CL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 28-60"

ACZ Sample ID: ***L59735-13***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 15:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:37	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 13:00	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:36	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 10:53	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.5			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.2	H	*	mg/Kg	0.2	1	12/08/06 21:06	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:06	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.0272	H	*	%	0.0007	0.004	12/08/06 17:34	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	25	H	*	mg/Kg	1	5	12/09/06 18:23	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 60-100"

ACZ Sample ID: ***L59735-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 8:33	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.96			meq/L	0.01	0.05	12/08/06 0:11	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.23			meq/L	0.02	0.08	12/08/06 0:11	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	90			mg/Kg	20	50	12/12/06 13:57	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.068			meq/L	0.008	0.03	12/08/06 0:11	gme
Sodium Absorption Ratio	Calculation	0.76				0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.59		*	meq/L	0.01	0.04	12/08/06 0:11	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.2	B	*	%	0.1	0.5	12/08/06 7:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.265		*	mmhos/cm	0.001	0.01	12/07/06 4:42	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/08/06 13:19	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.0		*	units	0.1	0.1	12/07/06 4:42	lwt/srs
Saturation Percent	USDA No. 60 (2)	42.20		*	%	0.01	0.1	12/07/06 4:42	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.6		*	% Passing	0.1	0.5	12/17/06 4:22	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	76.9		*	% Passing	0.1	0.5	12/01/06 6:34	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	88.6		*	%	0.1	0.5	12/07/06 5:51	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		26.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		43.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		30.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-1 60-100"

ACZ Sample ID: ***L59735-14***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:08	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:40	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 13:17	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:39	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:03	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.1			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	3.9	H	*	mg/Kg	0.2	1	12/08/06 21:07	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.8	H	*	mg/Kg	0.1	0.5	12/08/06 21:07	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.019	H	*	%	0.001	0.006	12/08/06 17:38	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	22	H	*	mg/Kg	1	5	12/09/06 18:24	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 15-25"

ACZ Sample ID: ***L59735-15***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 9:32	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.73			meq/L	0.01	0.05	12/08/06 0:15	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.25			meq/L	0.02	0.08	12/08/06 0:15	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	150			mg/Kg	20	50	12/12/06 14:01	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.189			meq/L	0.008	0.03	12/08/06 0:15	gme
Sodium Absorption Ratio	Calculation	0.17				0.03	0.15	12/21/06 11:01	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.24		*	meq/L	0.01	0.04	12/08/06 0:15	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	2.0		*	%	0.1	0.5	12/08/06 8:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.476		*	mmhos/cm	0.001	0.01	12/07/06 5:36	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1.0		*	%	0.1	0.5	12/08/06 13:34	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.2		*	units	0.1	0.1	12/07/06 5:36	lwt/srs
Saturation Percent	USDA No. 60 (2)	47.30		*	%	0.01	0.1	12/07/06 5:36	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.7		*	% Passing	0.1	0.5	12/17/06 9:28	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.8		*	% Passing	0.1	0.5	12/01/06 8:19	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	88.0		*	%	0.1	0.5	12/07/06 6:42	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		48.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		32.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 15-25"

ACZ Sample ID: ***L59735-15***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:17	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:44	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 13:34	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:42	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:12	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.1			mg/Kg	0.2	1	12/21/06 11:01	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.0	H	*	mg/Kg	0.2	1	12/08/06 21:09	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 21:09	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.19	H	*	%	0.01	0.05	12/08/06 18:13	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	10	H	*	mg/Kg	1	5	12/09/06 18:44	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 25-40"

ACZ Sample ID: ***L59735-16***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 11:31	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	4.30			meq/L	0.01	0.05	12/08/06 0:19	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.38			meq/L	0.02	0.08	12/08/06 0:19	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	130			mg/Kg	20	50	12/12/06 14:04	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.135			meq/L	0.008	0.03	12/08/06 0:19	gme
Sodium Absorption Ratio	Calculation	0.14	B			0.03	0.15	12/21/06 11:02	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	12/08/06 0:19	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.3		*	%	0.1	0.5	12/08/06 9:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.524		*	mmhos/cm	0.001	0.01	12/07/06 6:30	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/08/06 13:48	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.3		*	units	0.1	0.1	12/07/06 6:30	lwt/srs
Saturation Percent	USDA No. 60 (2)	47.70		*	%	0.01	0.1	12/07/06 6:30	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.8		*	% Passing	0.1	0.5	12/17/06 14:34	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.6		*	% Passing	0.1	0.5	12/01/06 10:03	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	95.6		*	%	0.1	0.5	12/07/06 7:34	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		45.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		38.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 25-40"

ACZ Sample ID: ***L59735-16***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:25	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:47	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 13:51	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:45	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:22	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.6			mg/Kg	0.2	1	12/21/06 11:02	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.3	H	*	mg/Kg	0.2	1	12/08/06 21:10	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:10	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.138	H	*	%	0.006	0.03	12/08/06 18:15	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	23	H	*	mg/Kg	1	5	12/09/06 18:45	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 40-60"

ACZ Sample ID: ***L59735-17***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 12:01	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	5.92			meq/L	0.01	0.05	12/08/06 0:23	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.79			meq/L	0.02	0.08	12/08/06 0:23	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	200			mg/Kg	20	50	12/12/06 14:08	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.323			meq/L	0.008	0.03	12/08/06 0:23	gme
Sodium Absorption Ratio	Calculation	0.15				0.03	0.15	12/21/06 11:02	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.29		*	meq/L	0.01	0.04	12/08/06 0:23	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.9		*	%	0.1	0.5	12/08/06 11:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.764		*	mmhos/cm	0.001	0.01	12/07/06 7:24	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/08/06 14:02	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	12/07/06 7:24	lwt/srs
Saturation Percent	USDA No. 60 (2)	44.30		*	%	0.01	0.1	12/07/06 7:24	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.0		*	% Passing	0.1	0.5	12/17/06 19:41	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	84.7		*	% Passing	0.1	0.5	12/01/06 11:47	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.1		*	%	0.1	0.5	12/07/06 8:25	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		42.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		38.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 40-60"

ACZ Sample ID: ***L59735-17***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:34	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:50	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 14:08	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:48	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:31	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.0			mg/Kg	0.2	1	12/21/06 11:02	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.9	H	*	mg/Kg	0.2	1	12/08/06 21:15	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 21:15	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.093	H	*	%	0.007	0.03	12/08/06 18:16	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	33	H	*	mg/Kg	1	5	12/09/06 18:30	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 60-75"

ACZ Sample ID: ***L59735-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 12:31	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.26			meq/L	0.01	0.05	12/08/06 0:39	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.35			meq/L	0.02	0.08	12/08/06 0:39	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	160			mg/Kg	20	50	12/12/06 14:11	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.153			meq/L	0.008	0.03	12/08/06 0:39	gme
Sodium Absorption Ratio	Calculation	0.16				0.03	0.15	12/21/06 11:02	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.22		*	meq/L	0.01	0.04	12/08/06 0:39	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	1.0		*	%	0.1	0.5	12/08/06 12:20	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.450		*	mmhos/cm	0.001	0.01	12/07/06 9:12	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/08/06 14:17	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.5		*	units	0.1	0.1	12/07/06 9:12	lwt/srs
Saturation Percent	USDA No. 60 (2)	40.90		*	%	0.01	0.1	12/07/06 9:12	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	83.9		*	% Passing	0.1	0.5	12/18/06 0:47	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	74.0		*	% Passing	0.1	0.5	12/01/06 13:31	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.0		*	%	0.1	0.5	12/07/06 9:17	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		18.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		46.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		35.0		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 60-75"

ACZ Sample ID: ***L59735-18***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:42	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:53	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 14:25	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:54	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:40	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	3.5			mg/Kg	0.2	1	12/21/06 11:02	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.4	H	*	mg/Kg	0.2	1	12/08/06 21:16	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.9	H	*	mg/Kg	0.1	0.5	12/08/06 21:16	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.091	H	*	%	0.006	0.03	12/08/06 18:17	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	34	H	*	mg/Kg	1	5	12/09/06 18:31	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 75-90"

ACZ Sample ID: ***L59735-19***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 13:01	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	11.40			meq/L	0.01	0.05	12/08/06 0:43	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	1.19			meq/L	0.02	0.08	12/08/06 0:43	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	250			mg/Kg	20	50	12/12/06 14:15	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.620			meq/L	0.008	0.03	12/08/06 0:43	gme
Sodium Absorption Ratio	Calculation	0.13	B			0.03	0.15	12/21/06 11:02	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.33		*	meq/L	0.01	0.04	12/08/06 0:43	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.9		*	%	0.1	0.5	12/08/06 13:40	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	1.250		*	mmhos/cm	0.001	0.01	12/07/06 10:06	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.8		*	%	0.1	0.5	12/08/06 14:31	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	7.4		*	units	0.1	0.1	12/07/06 10:06	lwt/srs
Saturation Percent	USDA No. 60 (2)	55.80		*	%	0.01	0.1	12/07/06 10:06	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	83.6		*	% Passing	0.1	0.5	12/18/06 5:53	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	76.0		*	% Passing	0.1	0.5	12/01/06 15:15	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	94.7		*	%	0.1	0.5	12/07/06 10:08	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		43.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		38.8		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1A-2 75-90"

ACZ Sample ID: ***L59735-19***
Date Sampled: *10/15/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:51	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:56	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 14:43	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:57	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:50	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	2.9			mg/Kg	0.2	1	12/21/06 11:02	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	3.5	H	*	mg/Kg	0.2	1	12/08/06 21:17	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.6	H	*	mg/Kg	0.1	0.5	12/08/06 21:17	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.077	H	*	%	0.002	0.01	12/08/06 18:19	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	56	H	*	mg/Kg	1	5	12/09/06 18:32	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 0-7"

ACZ Sample ID: ***L59735-20***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 13:30	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	3.71			meq/L	0.01	0.05	12/08/06 0:47	gme
Magnesium, soluble (Sat. Paste)	M6010B ICP	1.06			meq/L	0.02	0.08	12/08/06 0:47	gme
Potassium, extractable (AB-DTPA)	M6010B ICP	520			mg/Kg	20	50	12/12/06 14:18	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	1.690			meq/L	0.008	0.03	12/08/06 0:47	gme
Sodium Absorption Ratio	Calculation	0.11	B			0.03	0.15	12/21/06 11:02	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.17		*	meq/L	0.01	0.04	12/08/06 0:47	gme

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	3.1		*	%	0.1	0.5	12/08/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.675		*	mmhos/cm	0.001	0.01	12/07/06 11:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.9		*	%	0.1	0.5	12/08/06 14:45	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.9		*	units	0.1	0.1	12/07/06 11:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	64.40		*	%	0.01	0.1	12/07/06 11:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	83.7		*	% Passing	0.1	0.5	12/18/06 11:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.8		*	% Passing	0.1	0.5	12/01/06 17:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	75.8		*	%	0.1	0.5	12/07/06 11:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		16.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Sand		41.3		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Silt		42.5		*	%	0.1	0.5	12/14/06 0:00	lwt/srs
Texture Classification		L/SiL		*				12/14/06 0:00	lwt/srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 0-7"

ACZ Sample ID: ***L59735-20***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:59	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/09/06 9:59	erf
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 15:00	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 18:00	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/01/06 11:59	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	5.0			mg/Kg	0.2	1	12/21/06 11:02	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	5.7	H	*	mg/Kg	0.2	1	12/08/06 21:18	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 21:18	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.219	H	*	%	0.007	0.03	12/08/06 18:20	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	47	H	*	mg/Kg	1	5	12/09/06 18:33	pjb

** Please refer to Qualifier Reports for detail.*

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Inorganic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59735***

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217820													
WG217820ICV	ICV	12/07/06 22:50	II061128-2	100		97.91	mg/L	97.9	90	110			
WG217820ICB	ICB	12/07/06 22:54				U	mg/L		-0.6	0.6			
L59735-17DUP	DUP	12/08/06 0:35			5.92	5.914	meq/L				0.1	20	

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217771													
WG217771PBS	PBS	12/07/06 11:00				U	%		-0.3	0.3			
L59735-01DUP	DUP	12/07/06 13:40			.5	.5	%				0	20	RA

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217643													
L59735-17DUP	DUP	12/07/06 8:18			.764	.785	umhos/cm				2.7	20	

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217820													
WG217820ICV	ICV	12/07/06 22:50	II061128-2	100		94.23	mg/L	94.2	90	110			
WG217820ICB	ICB	12/07/06 22:54				U	mg/L		-0.6	0.6			
L59735-17DUP	DUP	12/08/06 0:35			.79	.794	meq/L				0.6	20	

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217874													
WG217874LCSS	LCSS	12/08/06 10:14	PCN20880	100		111.48	%						
L59735-20DUP	DUP	12/08/06 14:59			.9	.89	%				1.1	20	RA
WG217923													
L59734-02DUP	DUP	12/11/06 17:40			8.1	7.98	%				1.5	20	
WG217923LCSS	LCSS	12/13/06 4:20	PCN20880	100		111.72	%						
WG217923PBS	PBS	12/13/06 13:00				U	%		-0.1	0.1			

Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	2.416		2.249	mg/L	93.1	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.06	0.06			
WG217893													
WG217893ICV	ICV	12/08/06 20:41	WI061207-1	2.416		2.308	mg/L	95.5	90	110			
WG217893ICB	ICB	12/08/06 20:42				U	mg/L		-0.06	0.06			
WG217893LFB	LFB	12/08/06 20:43	WI060906-4	2		2.015	mg/Kg	100.8	85	115			
WG217795PBS	PBS	12/08/06 20:44				1.21	mg/Kg		-0.6	0.6			N1
L59735-01AS	AS	12/08/06 20:47	WI060906-4	20	4.9	23.96	mg/Kg	95.3	75	125			
L59735-01DUP	DUP	12/08/06 20:48			4.9	4.78	mg/Kg				2.5	20	

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Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59735***

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	.609		.618	mg/L	101.5	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.03	0.03			
WG217893													
WG217893ICV	ICV	12/08/06 20:41	WI061207-1	.609		.625	mg/L	102.6	90	110			
WG217893ICB	ICB	12/08/06 20:42				U	mg/L		-0.03	0.03			
WG217893LFB	LFB	12/08/06 20:43	WI060906-4	1		.99	mg/Kg	99	85	115			
WG217795PBS	PBS	12/08/06 20:44				.42	mg/Kg		-0.3	0.3			N1
L59735-01AS	AS	12/08/06 20:47	WI060906-4	10	1	9.71	mg/Kg	87.1	75	125			
L59735-01DUP	DUP	12/08/06 20:48			1	1.02	mg/Kg				2	20	

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217861													
WG217691ICV	ICV	12/08/06 17:01	WI061129-2	4		3.92	mg/L	98	90	110			
WG217691ICB	ICB	12/08/06 17:02				U	mg/L		-0.3	0.3			
WG217691PBS2	PBS	12/08/06 17:36				U	%		-0.003	0.003			
WG217691LFB2	LFB	12/08/06 17:37	WI061129-6	2.5		2.47	%	98.8	85	115			
L59735-14MS	MS	12/08/06 17:39	WI061129-6	.0325	.019	.0476	%	88	75	125			
WG217691PBS1	PBS	12/08/06 17:53				U	%		-0.003	0.003			
WG217691LFB1	LFB	12/08/06 17:54	WI061129-6	2.5		2.54	%	101.6	85	115			
L59735-15DUP	DUP	12/08/06 18:14			.19	.232	%				19.9	20	
L59732-11DUP	DUP	12/08/06 18:24			.153	.1393	%				9.4	20	
L59732-12MS	MS	12/08/06 18:26	5XPTSTKN	.0345	.054	.095	%	118.8	75	125			

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218128													
L59735-01DUP	DUP	12/14/06 9:45			25	25	%				0	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218128													
L59735-01DUP	DUP	12/14/06 9:45			50	47.5	%				5.1	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218128													
L59735-01DUP	DUP	12/14/06 9:45			25	27.5	%				9.5	20	

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217643													
L59735-17DUP	DUP	12/07/06 8:18			7.5	7.43	units				0.9	20	

Carbon Resources
Project ID:

ACZ Project ID: ***L59735***

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217910													
WG217910ICV	ICV	12/09/06 17:21	SCN000224	.65228		.605	mg/L	92.8	90	110			
WG217910ICB	ICB	12/09/06 17:23				U	mg/L		-0.03	0.03			
WG217911													
WG217911ICV	ICV	12/09/06 17:59	SCN000224	.65228		.607	mg/L	93.1	90	110			
WG217911ICB	ICB	12/09/06 18:01				.013	mg/L		-0.03	0.03			
WG217911LFB1	LFB	12/09/06 18:03	WI061125-2	.5		.535	mg/Kg	107	85	115			
WG217618PBS	PBS	12/09/06 18:04				4.1	mg/Kg		-3	3			N1
L59735-01DUP	DUP	12/09/06 18:06			31	31	mg/Kg				0	20	
L59735-02AS	AS	12/09/06 18:08	WI061125-2	50	28	80.3	mg/Kg	104.6	75	125			
WG217911LFB2	LFB	12/09/06 18:35	WI061125-2	.5		.538	mg/Kg	107.6	85	115			
L59736-01DUP	DUP	12/09/06 18:37			34	33.7	mg/Kg				0.9	20	
L59736-02AS	AS	12/09/06 18:40	WI061125-2	50	25	70.5	mg/Kg	91	75	125			

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217957													
WG217957ICV	ICV	12/12/06 6:34	II061209-1	20		20.73	mg/L	103.7	90	110			
WG217957ICB	ICB	12/12/06 6:37				U	mg/L		-0.9	0.9			
WG217618PBS	PBS	12/12/06 6:52				U	mg/L		-60	60			
L59735-01DUP	DUP	12/12/06 6:59			190	210	mg/L				10	20	RA
L59735-02AS	AS	12/12/06 7:10	II061207-3	4975.507	180	4954	mg/L	96	75	125			
L59735-02ASD	ASD	12/12/06 7:14	II061207-3	4975.507	180	4927	mg/L	95.4	75	125	0.55	20	
WG218015													
WG218015ICV	ICV	12/12/06 13:09	II061209-1	20		19.26	mg/L	96.3	90	110			
WG218015ICB	ICB	12/12/06 13:12				U	mg/L		-0.9	0.9			
WG217618PBS	PBS	12/12/06 13:26				U	mg/L		-60	60			
L59735-01AS	AS	12/12/06 13:37	II061207-3	4975.507	200	4548	mg/L	87.4	75	125			
L59735-01ASD	ASD	12/12/06 13:40	II061207-3	4975.507	200	4518	mg/L	86.8	75	125	0.66	20	
L59735-01DUP	DUP	12/12/06 13:44			200	210	mg/L				4.9	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217820													
WG217820ICV	ICV	12/07/06 22:50	II061128-2	20		20.01	mg/L	100.1	90	110			
WG217820ICB	ICB	12/07/06 22:54				U	mg/L		-0.9	0.9			
L59735-17DUP	DUP	12/08/06 0:35			.323	.3425	meq/L				5.9	20	

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217643													
L59735-17DUP	DUP	12/07/06 8:18			44.3	60.91	%				31.6	20	RC

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Inorganic QC Summary

Carbon Resources

Project ID:

ACZ Project ID: ***L59735***

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217820													
WG217820ICV	ICV	12/07/06 22:50	II061128-2	100		99.47	mg/L	99.5	90	110			
WG217820ICB	ICB	12/07/06 22:54				U	mg/L		-0.9	0.9			
L59735-17DUP	DUP	12/08/06 0:35			.29	.384	meq/L				27.9	20	RC

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217731													
WG217731PBS	PBS	12/06/06 17:00				U	%		99.9	100.1			
L59735-01DUP	DUP	12/06/06 18:42			94.9	95.1	%				0.2	20	

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59735***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-01	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-02	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59735***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-03	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-04	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-05	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-06	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-07	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-08	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-09	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-10	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-11	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-12	WG217957	Potassium, extractable (AB-DTPA)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-13	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-14	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-15	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< ~~10x~~ MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-16	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-17	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-18	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59735***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59735-19	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59735-20	WG217820	Sodium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217771	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217874	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217643	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217893	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Carbon Resources

ACZ Project ID: ***L59735***

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59735
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59735
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59735-01	2A-6 40-60"									X		
L59735-02	2A-6 60-80"									X		
L59735-03	2A-7 0-7"									X		
L59735-04	2A-7 7-20"									X		
L59735-05	2A-7 20-38"									X		
L59735-06	2B-1 0-9"									X		
L59735-07	2B-1 9-19"									X		
L59735-08	2B-1 19-33"									X		
L59735-09	2B-1 33-51"									X		
L59735-10	1A-1 0-6"									X		
L59735-11	1A-1 6-17"									X		
L59735-12	1A-1 17-28"									X		
L59735-13	1A-1 28-60"									X		
L59735-14	1A-1 60-100"									X		
L59735-15	1A-2 15-25"									X		
L59735-16	1A-2 25-40"									X		
L59735-17	1A-2 40-60"									X		
L59735-18	1A-2 60-75"									X		
L59735-19	1A-2 75-90"									X		
L59735-20	1B1 0-7"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59735

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

LZG 10.26.06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

10/31/2006

Very Fine Sand

analyst: as
date: 12-19-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59735-01	475.81	85.2	40.0	7.0	**14.9**
L59735-02	510.97	76.5	40.0	7.1	**13.6**
L59735-03	295.07	87.6	40.0	11.1	**24.3**
L59735-04	309.41	86.9	40.0	10.4	**22.6**
L59735-05	335.77	79.4	40.0	10.3	**20.4**
L59735-06	242.34	84.9	40.0	10.0	**21.2**
L59735-07	367.57	39.9	40.0	8.7	**8.7**
L59735-08	373.47	79.6	40.0	4.8	**9.6**
L59735-09	310.37	88.3	40.0	7.1	**15.7**
L59735-10	245.80	92.5	40.0	8.9	**20.6**
L59735-11	321.50	92.6	40.0	9.9	**22.9**
L59735-12	393.30	86.2	40.0	9.6	**20.7**
L59735-13	517.90	82.0	40.0	9.3	**19.1**
L59735-14	489.14	76.9	40.0	9.6	**18.5**
L59735-15	330.12	82.8	40.0	8.8	**18.2**
L59735-16	331.02	79.6	40.0	9.1	**18.1**
L59735-17	515.54	84.7	40.0	9.0	**19.1**
L59735-18	389.72	74.0	40.0	8.7	**16.1**
L59735-19	324.28	76.0	40.0	8.6	**16.3**
L5973-20	275.01	79.8	40.0	8.2	**16.4**
dup L59735-01	475.81	85.2	40.0	6.8	**14.5**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG217377

-sieve53 WG217379

-texture WG218128

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 21, 2006

Report to:
Clay Wisdom
Carbon Resources
PO Box 1789
Albuquerque, NM 87192

Bill to:
Clay Wisdom
Carbon Resources
PO Box 11789
Albuquerque, NM 87192

cc: Greg Hunt, Bruce Chesler

Project ID:
ACZ Project ID: L59736

Clay Wisdom:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 31, 2006. This project has been assigned to ACZ's project number, L59736. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59736. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 21, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Sue Webber 21/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048 (800) 334-5493

Case Narrative

Carbon Resources

December 21, 2006

Project ID:
ACZ Project ID: L59736

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 soil samples from Carbon Resources on October 31, 2006. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L59736. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were not performed within EPA recommended holding times. The EPA holding times apply to water samples, not soil so the "H" flags are not applicable.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies required further explanation not provided by the Extended Qualifier Report:

1. For Nitrate/Nitrite, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

2. For Phosphorus, extractable values flagged with an "N1", the Prep Blank (PBS) was detected above the MDL. The data was flagged and accepted since this is considered typical procedural contamination.

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 7-15"

ACZ Sample ID: ***L59736-01***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 14:00	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	1.81		*	meq/L	0.01	0.05	12/11/06 15:22	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.46		*	meq/L	0.02	0.08	12/11/06 15:22	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	310			mg/Kg	30	100	12/14/06 12:56	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.819			meq/L	0.008	0.03	12/11/06 15:22	msh
Sodium Absorption Ratio	Calculation	0.57				0.03	0.15	12/21/06 0:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.61			meq/L	0.01	0.04	12/11/06 15:22	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.8		*	%	0.1	0.5	12/07/06 18:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.481		*	mmhos/cm	0.001	0.01	12/06/06 17:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.6		*	%	0.1	0.5	12/08/06 11:24	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.6		*	units	0.1	0.1	12/06/06 17:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	130		*	%	0.01	0.1	12/06/06 17:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	83.3		*	% Passing	0.1	0.5	12/18/06 11:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.9		*	% Passing	0.1	0.5	12/04/06 8:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	91.7		*	%	0.1	0.5	12/06/06 21:30	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		17.5		*	%	0.1	0.5	12/15/06 0:00	srs
Sand		42.5		*	%	0.1	0.5	12/15/06 0:00	srs
Silt		40.0		*	%	0.1	0.5	12/15/06 0:00	srs
Texture Classification		L		*				12/15/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 7-15"

ACZ Sample ID: ***L59736-01***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 14:45	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/10/06 17:00	erf/srs
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 10:30	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:00	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/04/06 9:00	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.1			mg/Kg	0.2	1	12/21/06 0:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.8	H	*	mg/Kg	0.2	1	12/08/06 22:19	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:19	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.067	H	*	%	0.002	0.008	12/08/06 17:50	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	34	H	*	mg/Kg	1	5	12/09/06 18:36	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 15-28"

ACZ Sample ID: ***L59736-02***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 14:30	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.71		*	meq/L	0.01	0.05	12/11/06 15:25	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.21		*	meq/L	0.02	0.08	12/11/06 15:25	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	180			mg/Kg	30	100	12/14/06 13:13	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.380			meq/L	0.008	0.03	12/11/06 15:25	msh
Sodium Absorption Ratio	Calculation	1.25				0.03	0.15	12/21/06 0:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.85			meq/L	0.01	0.04	12/11/06 15:25	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.4	B	*	%	0.1	0.5	12/08/06 8:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.329		*	mmhos/cm	0.001	0.01	12/06/06 23:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.4	B	*	%	0.1	0.5	12/08/06 12:36	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.3		*	units	0.1	0.1	12/06/06 23:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	86.70		*	%	0.01	0.1	12/06/06 23:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	82.3		*	% Passing	0.1	0.5	12/18/06 11:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	79.3		*	% Passing	0.1	0.5	12/04/06 10:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	96.8		*	%	0.1	0.5	12/07/06 6:30	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/15/06 0:00	srs
Sand		42.5		*	%	0.1	0.5	12/15/06 0:00	srs
Silt		45.0		*	%	0.1	0.5	12/15/06 0:00	srs
Texture Classification		SiL		*				12/15/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 15-28"

ACZ Sample ID: ***L59736-02***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 16:15	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/10/06 17:15	erf/srs
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 13:30	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:20	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/04/06 9:30	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.4			mg/Kg	0.2	1	12/21/06 0:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.9	H	*	mg/Kg	0.2	1	12/08/06 22:22	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.5	H	*	mg/Kg	0.1	0.5	12/08/06 22:22	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.074	H	*	%	0.002	0.009	12/08/06 17:51	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	25	H	*	mg/Kg	1	5	12/09/06 18:39	pjb

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 28-60"

ACZ Sample ID: ***L59736-03***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							12/07/06 15:00	nps

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, soluble (Sat. Paste)	M6010B ICP	0.68		*	meq/L	0.01	0.05	12/11/06 15:29	msh
Magnesium, soluble (Sat. Paste)	M6010B ICP	0.21		*	meq/L	0.02	0.08	12/11/06 15:29	msh
Potassium, extractable (AB-DTPA)	M6010B ICP	90	B		mg/Kg	30	100	12/14/06 13:23	msh
Potassium, soluble (Sat. Paste)	M6010B ICP	0.232			meq/L	0.008	0.03	12/11/06 15:29	msh
Sodium Absorption Ratio	Calculation	0.89				0.03	0.15	12/21/06 0:00	calc
Sodium, soluble (Sat. Paste)	M6010B ICP	0.60			meq/L	0.01	0.04	12/11/06 15:29	msh

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	0.1	B	*	%	0.1	0.5	12/08/06 15:00	brg
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep	0.287		*	mmhos/cm	0.001	0.01	12/07/06 5:00	lwt/srs
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.3	B	*	%	0.1	0.5	12/08/06 13:48	lwt/srs
pH, Saturated Paste	USDA No. 60 (21A)	6.3		*	units	0.1	0.1	12/07/06 5:00	lwt/srs
Saturation Percent	USDA No. 60 (2)	29.90		*	%	0.01	0.1	12/07/06 5:00	lwt/srs
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2	81.7		*	% Passing	0.1	0.5	12/18/06 11:00	rje/srs
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2	82.4		*	% Passing	0.1	0.5	12/04/06 12:00	as/rje
Solids, Percent	CLPSOW390, PART F, D-98	97.3		*	%	0.1	0.5	12/07/06 11:00	lwt/srs
Texture by Hydrometer	ASTM D 422 Hydrometer								
Clay		12.5		*	%	0.1	0.5	12/15/06 0:00	srs
Sand		57.5		*	%	0.1	0.5	12/15/06 0:00	srs
Silt		30.0		*	%	0.1	0.5	12/15/06 0:00	srs
Texture Classification		L		*				12/15/06 0:00	srs
Very Fine Sand	ASA No.9, 15-4.2.2	see attachments							N/A

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Carbon Resources
Project ID:
Sample ID: 1B1 28-60"

ACZ Sample ID: ***L59736-03***
Date Sampled: *10/16/06 00:00*
Date Received: *10/31/06*
Sample Matrix: *Soil*

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
AB-DPTA Extraction	ASA No.9, 3-5.2.3							12/05/06 17:00	brg
Air Dry at 34 Degrees C	USDA No. 1, 1972							11/10/06 17:30	erf/srs
Potassium Chloride Extraction	ASA No. 9 33-3.2.2							12/08/06 15:00	lwt/srs
Saturated Paste Extraction	USDA No. 60 (2)							12/05/06 17:40	lwt/srs
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/04/06 10:00	srs

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrate as N, extractable (KCL)	Calculation: NO3NO2 minus NO2	4.1			mg/Kg	0.2	1	12/21/06 0:00	calc
Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	4.8	H	*	mg/Kg	0.2	1	12/08/06 22:28	pjb
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	0.7	H	*	mg/Kg	0.1	0.5	12/08/06 22:28	pjb
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	0.015	H	*	%	0.001	0.007	12/08/06 17:52	nps
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	18	H	*	mg/Kg	1	5	12/09/06 18:43	pjb

** Please refer to Qualifier Reports for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59736***

Calcium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217956													
WG217956ICV	ICV	12/11/06 15:04	II061209-1	100		98.81	mg/L	98.8	90	110			
WG217956ICB	ICB	12/11/06 15:08				U	mg/L		-0.6	0.6			
L59736-03DUP	DUP	12/11/06 15:33			.68	.833	meq/L				20.2	20	RC

Carbon, total organic (TOC) ASA No.9 29-2.2.4 Combustion/IR

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217772													
WG217772PBS	PBS	12/07/06 11:00				U	%		-0.3	0.3			
L59736-01DUP	DUP	12/08/06 1:00			.8	.8	%				0	20	RA

Conductivity @25C M120.1 - Meter, w/ Saturated Paste Prep

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217647													
L59736-03DUP	DUP	12/07/06 11:00			.287	.306	umhos/cm				6.4	20	

Magnesium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217956													
WG217956ICV	ICV	12/11/06 15:04	II061209-1	100		96.18	mg/L	96.2	90	110			
WG217956ICB	ICB	12/11/06 15:08				U	mg/L		-0.6	0.6			
L59736-03DUP	DUP	12/11/06 15:33			.21	.263	meq/L				22.3	20	RC

Neutralization Potential as CaCO3 M600/2-78-054 3.2.3

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217866													
WG217866LCSS	LCSS	12/08/06 10:12	PCN20880	100		119.6	%						
L59736-03DUP	DUP	12/08/06 15:00			.3	.29	%				3.4	20	RA

Nitrate/Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	2.416		2.249	mg/L	93.1	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.06	0.06			
WG217895													
WG217895ICV	ICV	12/08/06 21:37	WI061207-1	2.416		2.3	mg/L	95.2	90	110			
WG217895ICB	ICB	12/08/06 21:39				U	mg/L		-0.06	0.06			
WG217895LFB1	LFB	12/08/06 21:40	WI060906-4	2		2.028	mg/Kg	101.4	85	115			
WG217830PBS	PBS	12/08/06 22:17				2.34	mg/Kg		-0.6	0.6			N1
WG217895LFB2	LFB	12/08/06 22:18	WI060906-4	2		2.067	mg/Kg	103.4	85	115			
L59736-01DUP	DUP	12/08/06 22:21			4.8	4.89	mg/Kg				1.9	20	
L59736-02AS	AS	12/08/06 22:23	WI060906-4	20	4.9	24.57	mg/Kg	98.4	75	125			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59736***

Nitrite as N, extractable (KCL) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217892													
WG217892ICV	ICV	12/08/06 19:33	WI061207-1	.609		.618	mg/L	101.5	90	110			
WG217892ICB	ICB	12/08/06 19:34				U	mg/L		-0.03	0.03			
WG217895													
WG217895ICV	ICV	12/08/06 21:37	WI061207-1	.609		.622	mg/L	102.1	90	110			
WG217895ICB	ICB	12/08/06 21:39				U	mg/L		-0.03	0.03			
WG217895LFB1	LFB	12/08/06 21:40	WI060906-4	1		.996	mg/Kg	99.6	85	115			
WG217895LFB2	LFB	12/08/06 22:18	WI060906-4	1		1.017	mg/Kg	101.7	85	115			
L59736-01DUP	DUP	12/08/06 22:21			.7	.7	mg/Kg				0	20	RA
L59736-02AS	AS	12/08/06 22:23	WI060906-4	10	.5	9.53	mg/Kg	90.3	75	125			

Nitrogen, total Kjeldahl M351.2 - TKN by Block Digester

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217861													
WG217691ICV	ICV	12/08/06 17:01	WI061129-2	4		3.92	mg/L	98	90	110			
WG217691ICB	ICB	12/08/06 17:02				U	mg/L		-0.3	0.3			
WG217691PBS2	PBS	12/08/06 17:36				U	%		-0.003	0.003			
WG217691LFB2	LFB	12/08/06 17:37	WI061129-6	2.5		2.47	%	98.8	85	115			
L59735-14MS	MS	12/08/06 17:39	WI061129-6	.0325	.019	.0476	%	88	75	125			
WG217691PBS1	PBS	12/08/06 17:53				U	%		-0.003	0.003			
WG217691LFB1	LFB	12/08/06 17:54	WI061129-6	2.5		2.54	%	101.6	85	115			
L59735-15DUP	DUP	12/08/06 18:14			.19	.232	%				19.9	20	
L59732-12MS	MS	12/08/06 18:26	5XPTSTKN	.0345	.054	.095	%	118.8	75	125			

Percent Clay ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218198													
L59736-01DUP	DUP	12/15/06 13:10			17.5	16.3	%				7.1	20	

Percent Sand ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218198													
L59736-01DUP	DUP	12/15/06 13:10			42.5	42.5	%				0	20	

Percent Silt ASTM D 422 Hydrometer

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218198													
L59736-01DUP	DUP	12/15/06 13:10			40	41.3	%				3.2	20	

pH, Saturated Paste USDA No. 60 (21A)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217647													
L59736-03DUP	DUP	12/07/06 11:00			6.3	6.5	units				3.1	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Carbon Resources
Project ID:

ACZ Project ID: ***L59736***

Phosphorus, extractable (AB-DTPA) M365.1 - Automated Ascorbic Acid

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217910													
WG217910ICV	ICV	12/09/06 17:21	SCN000224	.65228		.605	mg/L	92.8	90	110			
WG217910ICB	ICB	12/09/06 17:23				U	mg/L		-0.03	0.03			
WG217911													
WG217911ICV	ICV	12/09/06 17:59	SCN000224	.65228		.607	mg/L	93.1	90	110			
WG217911ICB	ICB	12/09/06 18:01				.013	mg/L		-0.03	0.03			
WG217911LFB1	LFB	12/09/06 18:03	WI061125-2	.5		.535	mg/Kg	107	85	115			
WG217619PBS	PBS	12/09/06 18:34				3.8	mg/Kg		-3	3			N1
WG217911LFB2	LFB	12/09/06 18:35	WI061125-2	.5		.538	mg/Kg	107.6	85	115			
L59736-01DUP	DUP	12/09/06 18:37			34	33.7	mg/Kg				0.9	20	
L59736-02AS	AS	12/09/06 18:40	WI061125-2	50	25	70.5	mg/Kg	91	75	125			

Potassium, extractable (AB-DTPA) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG218071													
WG218071ICV	ICV	12/14/06 12:35	II061209-1	20		20.09	mg/L	100.5	90	110			
WG218071ICB	ICB	12/14/06 12:38				U	mg/L		-0.9	0.9			
WG217619PBS	PBS	12/14/06 12:52				U	mg/L		-90	90			
L59736-01AS	AS	12/14/06 13:03	II061207-3	9951.014	310	10756	mg/L	105	75	125			
L59736-01ASD	ASD	12/14/06 13:06	II061207-3	9951.014	310	10328	mg/L	100.7	75	125	4.06	20	
L59736-01DUP	DUP	12/14/06 13:09			310	330	mg/L				6.3	20	

Potassium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217956													
WG217956ICV	ICV	12/11/06 15:04	II061209-1	20		20.2	mg/L	101	90	110			
WG217956ICB	ICB	12/11/06 15:08				U	mg/L		-0.9	0.9			
L59736-03DUP	DUP	12/11/06 15:33			.232	.2186	meq/L				6	20	

Saturation Percent USDA No. 60 (2)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217647													
L59736-03DUP	DUP	12/07/06 11:00			29.9	41.47	%				32.4	20	RC

Sodium, soluble (Sat. Paste) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217956													
WG217956ICV	ICV	12/11/06 15:04	II061209-1	100		100.3	mg/L	100.3	90	110			
WG217956ICB	ICB	12/11/06 15:08				U	mg/L		-0.9	0.9			
L59736-03DUP	DUP	12/11/06 15:33			.6	.535	meq/L				11.5	20	

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG217732													
WG217732PBS	PBS	12/06/06 17:00				U	%		99.9	100.1			
L59736-01DUP	DUP	12/07/06 2:00			91.7	92.26	%				0.6	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59736***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59736-01	WG217956	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217772	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217866	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217647	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.
L59736-02	WG217956	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217772	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217866	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217647	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Carbon Resources

ACZ Project ID: ***L59736***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L59736-03	WG217956	Calcium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Magnesium, soluble (Sat. Paste)	M6010B ICP	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217772	Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217866	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217647	Saturation Percent	USDA No. 60 (2)	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG217895	Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
		Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M353.2 - Automated Cadmium Reduction	N1	See Case Narrative.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG217861	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	H1	Sample analysis performed past holding time.
	WG217911	Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid	HD	No pre-extraction hold time is specified in the method. Post-extraction hold time was met.
			M365.1 - Automated Ascorbic Acid	N1	See Case Narrative.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Carbon Resources

ACZ Project ID: ***L59736***

Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Carbon, total organic (TOC)	ASA No.9 29-2.2.4 Combustion/IR
Conductivity @25C	M120.1 - Meter, w/ Saturated Paste Prep
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
pH, Saturated Paste	USDA No. 60 (21A)
Saturation Percent	USDA No. 60 (2)
Sieve- 53 um (270 mesh)	ASA No.9, 15-4.2.2
Sieve- 2000 um (2.0 mm)	ASA No.9, 15-4.2.2
Solids, Percent	CLPSOW390, PART F, D-98
Texture by Hydrometer	ASTM D 422 Hydrometer

Wet Chemistry

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Nitrate/Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrite as N, extractable (KCL)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester
Phosphorus, extractable (AB-DTPA)	M365.1 - Automated Ascorbic Acid

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59736
Date Received: 10/31/2006
Received By:
Date Printed: 10/31/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BUCKET X 8		22.5	16

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Carbon Resources

ACZ Project ID: L59736
Date Received: 10/31/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59736-01	1B1 7-15"									X		
L59736-02	1B1 15-28"									X		
L59736-03	1B1 28-60"									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L59736

Carbon Resources Soil Sample Increments
Kinney Mine, Scofield Utah
Sampled October 14-18, 2006
By Bruce Chesler and Greg Hunt
Telephone 435-826-4961
Billed to Carbon Resources

Mailed UPS on October 24, 2006 to:
ACZ Laboratory
2773 Downhill Drive
Steamboat Springs, Colorado, 80487
Attn. Sue Webber telephone 1-800-334-5493 Ext.110

Soil Samples sent in 5-gallon white plastic buckets from Escalante, Utah, and coal samples sent separately in a bucket from Cedaredege, Colorado. The coal sample increments are required to have the following additional analyses, along with the soil horizons found above and below them in their respective soil positions. These will include soil horizons and coal materials sampled at 3 locations, (D3, D9A, D9B) including a total of 19 samples.

Total Organic Carbon (Combustion Method, Western States Lab Testing Program, 1998, volume 4.10, page 88)
Soluble Selenium reported in mg/kg (Hydric Generation AA-Spectrometry and Flourimetry of water extracted Selenium)
Available Boron reported in mg/kg (saturation extract)
Acid Potential reported % pyric S
Neutralization Potential Tons CaCo3 equivalent/1000 tons

The remaining samples are as follows:

D1 0-6, 6-16, 16-25, 25-40, 40-65, 65-90 (6 samples)

D2 0-6, 6-24 (2 samples)

D3 Coal and Soil sent in separate shipments 0-10, 10-20, 20-40, 40-60, 60-75, 1 coal (7)

D4 0-8, 8-16, (2 samples)

D5 0-6, 6-20, 20-40, 40-60 (4 samples)

D6 0-7, coal not sampled, 24-48, 48-72 (3 samples)

D7 0-6, 6-20, 20-42, 42-58, 58-70 (5 samples)

D8 0-6, 6-13, 13-26, 26-48 (4 samples)

D9A coal and soil sent in two shipments 0-6, 6-12, 12-30, 30-68, 68-95, 95-115, 115-140 (7 samples)

D9B coal and soil sent separately 0-6, 6-12, 12-30, 30-52, 52-80, 80-102 (6 samples)

D10 0-5, 5-11, 11-23, 23-35 (4 samples)

D11 0-12, did not sample coal, 62-82 (2samples)

D12 0-6, 6-14, 14-28, 28-48, 48-66 (5 samples)

2A-1 0-10, 10-24, 24-44, 44-65, 65-80 (5 samples)

2A-2 0-5, 5-14, 14-25, 25-38 (4 samples)

2A-3 0-9, 9-19, 19-36, 36-52 (4 samples)

2A-5 0-6, 6-12, 12-24, 24-48 (4 samples)

2A-6 0-6, 6-12, 12-24, 24-40, 40-66, 66-80 (6 samples)

2A-7 0-7, 7-20, 20-38 (3 samples)

2B-1 0-9, 9-19, 19-33, 33-51 (4 samples)

1A-1 0-6, 6-17, 17-28, 28-60, 60-100 (5 samples)

1A-2 15-25, 25-40, 40-60, 60-75, 75-90 (5 samples)

1B1 0-7, 7-15, 15-28, 28-60 (4 samples)

Please give me a call if you have any questions on methodology at my office. Phone # 435-826-4961

Thanks,
Bruce Chesler
Representing, Carbon Resources
Escalante, Utah

VBC 10·26·06

Sue Webber

From: GHuntBBC@aol.com
Sent: Friday, October 27, 2006 12:52 PM
To: bches@scinternet.net; Sue Webber
Subject: Sue Weber Carbon Resources Soil Samples

FROM: **Geo-Hunt Consulting**
16577 Columbine Lane
Cedaredge, CO 81413
970-856-9477

TO: **Sue Webber, Project Manager**
ACZ Laboratories, Inc.
2773 Downhill Drive,
Steamboat Springs, Co 80487

RE: **TRANSMITTAL OF SOIL SAMPLES**

Dear Sue:
You have already received a rather large number of samples from BRUCE CHESLER, soil scientist from Escalante Utah, from the Carbon Resources "Kinney" Property, Scofield Utah. Enclosed please find the following seven soil samples taken from the same property and are a part of the same project. These samples should be processed with those received directly from Bruce and all of the results should be returned to Bruce.

D3
D4 19"-72"
D9-A 12"- 30"
D9-A 30"- 68"
D9-B 12"- 30"
D9-B 30"- 50"
D11 11"-48"

Note that some of the bag samples received from Bruce and or I may be labeled either Carbon Resources or Kinney. Both names indicate the same project.

Thank you for your prompt attention to this project.

Greg Hunt

Cc: Bruce Chesler

10/31/2006

Very Fine Sand

analyst: as
date: 12-19-06

ACZ L#	Total sample wt. gms	% <2000um sieve	Wt. of sxs used for Texture gms	Wt. of sxs between 105um & 53um gm.	% VFS
L59736-01	363.84	79.9	40.0	8.3	**16.6**
L59736-02	362.18	79.3	40.0	8.9	**17.6**
L59736-03	386.22	82.4	40.0	8.9	**18.3**

(wt of sxs between 105um & 53um) / (wt. of sxs used for texture) = VFS of texture

(VFS of Texture) x (% <2000um) = % VFS

additional data from:

-sieve2000 WG217378

-sieve53 WG217380

-texture WG218198

Intermountain Laboratories Analysis Sheets

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Carbon Resources

Report ID: S0709096001

Project: Kinney Mine
Date Received: 9/7/2007

Date Reported:
Work Order: S0709096

Lab ID	Sample ID	Depths Inches	pH s.u.	Saturation %	Electrical Conductivity dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	SAR	Alkalinity meq/L
S0709096-001	01-SP-07	0-6	7.3	39.8	0.44	2.48	0.89	0.34	0.43	0.26	1.99
S0709096-002	01-SP-07	6-14	7.4	40.8	0.46	2.92	0.87	0.32	0.28	0.23	1.99
S0709096-003	01-SP-07	14-24	7.7	50.5	1.15	7.19	1.75	1.42	0.12	0.67	2.39
S0709096-004	02-SP-07	0-6	6.6	36.0	0.49	1.48	0.64	0.82	1.40	0.79	1.19
S0709096-005	02-SP-07	6-17	6.8	35.4	0.54	0.84	0.79	1.10	1.32	1.22	1.79
S0709096-006	02-SP-07	17-32	7.2	33.4	1.91	6.10	2.99	4.37	3.95	2.05	1.19
S0709096-007	02-SP-07	32-44	7.4	36.0	3.60	15.1	8.52	7.30	5.75	2.12	1.99
S0709096-008	03-SP-07	0-6	6.5	47.6	0.62	2.05	1.09	1.51	1.31	1.21	1.99
S0709096-009	03-SP-07	6-18	6.9	38.4	0.66	2.57	1.06	1.47	1.10	1.09	2.98
S0709096-010	03-SP-07	18-30	7.2	34.7	2.00	8.14	2.53	3.12	2.31	1.35	2.59
S0709096-011	03-SP-07	30-40	7.6	32.8	3.73	18.4	6.53	6.67	3.23	1.89	1.69
S0709096-012	04-SP-07	0-6	6.6	47.7	0.26	1.32	0.76	0.74	0.63	0.72	1.39
S0709096-013	04-SP-07	6-11	6.6	32.8	0.29	1.52	0.61	0.16	0.44	0.15	1.59
S0709096-014	04-SP-07	11-20	6.7	30.0	0.28	1.41	0.55	0.26	0.41	0.26	1.39
S0709096-015	04-SP-07	20-40	6.9	33.0	0.28	1.44	0.54	0.33	0.15	0.33	1.49
S0709096-016	05-SP-07	0-8	6.5	31.5	0.27	1.54	0.49	0.27	0.21	0.27	1.29
S0709096-017	05-SP-07	8-28	6.7	29.0	0.19	0.66	0.48	0.51	0.19	0.68	0.70
S0709096-018	05-SP-07	28-60	7.1	29.3	0.24	1.03	0.49	0.55	0.10	0.62	1.09
S0709096-019	06-SP-07	0-6	7.3	30.6	0.45	3.01	0.87	0.28	0.31	0.20	3.58
S0709096-020	06-SP-07	6-55	7.4	34.2	1.32	7.04	4.61	1.99	0.29	0.82	1.99

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Carbon Resources

Report ID: S0709096001

Project: Kinney Mine
Date Received: 9/7/2007

Date Reported:
Work Order: S0709096

Lab ID	Sample ID	Depths Inches	pH s.u.	Saturation %	Electrical Conductivity dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	SAR	Alkalinity meq/L
S0709096-021	06-SP-07	55-80	6.2	32.1	1.53	10.4	5.66	0.34	0.29	0.12	0.50
S0709096-022	07-SP-07	0-6	6.6	38.4	0.37	1.74	0.67	0.27	0.70	0.24	2.29
S0709096-023	07-SP-07	6-11	6.5	34.2	0.23	0.98	0.48	0.34	0.36	0.40	1.29
S0709096-024	07-SP-07	11-28	6.6	29.6	0.23	1.23	0.50	0.24	0.30	0.26	1.19
S0709096-025	07-SP-07	28-40	7.1	27.9	0.35	2.16	0.72	0.31	0.08	0.26	2.19
S0709096-026	08-SP-07	0-9	6.5	47.6	0.26	1.21	0.45	0.18	0.55	0.20	1.39
S0709096-027	08-SP-07	9-17	6.6	37.3	0.30	1.59	0.58	0.25	0.37	0.24	1.49
S0709096-028	08-SP-07	17-36	6.6	26.2	0.18	0.84	0.35	0.16	0.27	0.21	1.09
S0709096-029	08-SP-07	36-60	6.7	24.3	0.23	0.91	0.53	0.28	0.25	0.33	0.90
S0709096-030	09-SP-07	0-6	6.5	38.6	0.30	1.42	0.54	0.16	0.57	0.16	2.09
S0709096-031	09-SP-07	6-12	6.5	28.8	0.21	1.02	0.40	0.17	0.31	0.20	1.19
S0709096-032	09-SP-07	12-30	6.5	33.0	0.19	0.91	0.49	0.28	0.15	0.34	1.00
S0709096-033	09-SP-07	30-60	6.9	34.7	0.17	0.87	0.38	0.27	0.06	0.34	1.19
S0709096-034	10-SP-07	0-7	6.9	33.4	0.37	2.44	0.76	0.16	0.29	0.13	2.79
S0709096-035	10-SP-07	7-18	6.6	28.6	0.17	0.96	0.38	0.15	0.15	0.18	1.00
S0709096-036	10-SP-07	18-40	6.7	30.0	0.15	0.82	0.23	0.18	0.07	0.25	0.80
S0709096-037	10-SP-07	40-70	7.3	29.0	0.40	2.89	0.56	0.22	0.09	0.17	2.59
S0709096-038	11-SP-07	0-5	6.8	40.8	0.33	1.74	0.64	0.22	0.68	0.20	2.59
S0709096-039	11-SP-07	5-13	6.4	31.8	0.34	1.45	0.70	0.34	0.52	0.33	1.79
S0709096-040	11-SP-07	13-33	6.6	29.4	0.26	1.46	0.55	0.23	0.28	0.23	1.39

These results apply only to the samples tested.

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Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
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Karen Secor, Soil Lab Supervisor

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Soil Analysis Report
Carbon Resources

Report ID: S0709096001

Project: Kinney Mine
Date Received: 9/7/2007

Date Reported:
Work Order: S0709096

Lab ID	Sample ID	Depths Inches	pH s.u.	Saturation %	Electrical Conductivity dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	SAR	Alkalinity meq/L
S0709096-041	11-SP-07	33-55	6.8	35.4	0.20	1.11	0.50	0.27	0.13	0.30	1.79
S0709096-042	11-SP-07	55-80	7.1	37.1	0.33	1.34	0.70	0.64	0.17	0.63	2.19
S0709096-043	12-SP-07	0-6	7.1	36.3	0.42	2.19	0.77	0.13	0.89	0.11	3.18
S0709096-044	12-SP-07	6-12	7.2	34.7	0.24	0.98	0.42	0.14	0.86	0.17	1.79
S0709096-045	12-SP-07	12-24	7.2	31.5	0.26	1.22	0.45	0.13	0.70	0.15	1.99
S0709096-046	12-SP-07	24-36	7.4	33.0	0.32	2.05	0.72	0.17	0.36	0.15	1.99
S0709096-047	12-SP-07	36-52	7.4	31.0	0.40	2.45	0.75	0.23	0.32	0.18	2.79
S0709096-048	12-SP-07	52-75	7.8	29.8	0.38	2.20	0.79	0.27	0.30	0.22	2.29
S0709096-049	13-SP-07	0-8	7.0	35.0	0.45	2.49	0.99	0.22	0.54	0.16	3.28
S0709096-050	13-SP-07	8-25	6.2	67.9	0.23	1.39	0.46	0.07	0.06	0.07	0.50
S0709096-051	13-SP-07	25-41	6.8	31.7	0.35	2.46	0.56	0.08	0.20	0.07	1.69
S0709096-052	13-SP-07	41-70	6.6	25.8	0.40	1.98	0.77	0.19	0.39	0.17	1.69

These results apply only to the samples tested.

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Work Order: S0709096

Lab ID	Sample ID	Depths Inches	Sand %	Silt %	Clay %	Texture	Very Fine Sand %	Boron ppm	TKN %	Phosphorus ppm	Selenium ppm
S0709096-001	01-SP-07	0-6	66.0	24.0	10.0	Sandy Loam	14.9		0.30	11.9	
S0709096-002	01-SP-07	6-14	70.0	19.0	11.0	Sandy Loam	17.6		0.46	12.7	
S0709096-003	01-SP-07	14-24	37.0	41.0	22.0	Loam	18.6		0.10	12.6	
S0709096-004	02-SP-07	0-6	47.0	37.0	16.0	Loam	22.6		0.07	30.7	
S0709096-005	02-SP-07	6-17	46.0	36.0	18.0	Loam	25.0		0.02	34.3	
S0709096-006	02-SP-07	17-32	47.0	36.0	17.0	Loam	26.4		0.06	26.8	
S0709096-007	02-SP-07	32-44	40.0	38.0	22.0	Loam	23.5		0.08	17.5	
S0709096-008	03-SP-07	0-6	46.0	35.0	19.0	Loam	25.4		0.06	35.6	
S0709096-009	03-SP-07	6-18	48.0	34.0	18.0	Loam	25.9		0.04	45.2	
S0709096-010	03-SP-07	18-30	42.0	37.0	21.0	Loam	26.8		0.06	45.2	
S0709096-011	03-SP-07	30-40	42.0	37.0	21.0	Loam	24.1		0.01	17.6	
S0709096-012	04-SP-07	0-6	54.0	29.0	17.0	Sandy Loam	23.1		0.14	15.1	
S0709096-013	04-SP-07	6-11	49.0	34.0	17.0	Loam	24.0		0.09	14.2	
S0709096-014	04-SP-07	11-20	50.0	32.0	18.0	Loam	22.4		0.03	12.0	
S0709096-015	04-SP-07	20-40	54.0	25.0	21.0	Sandy Clay Loam	21.9		0.04	14.3	
S0709096-016	05-SP-07	0-8	45.0	33.0	22.0	Loam	23.4		0.05	14.3	
S0709096-017	05-SP-07	8-28	55.0	24.0	21.0	Sandy Clay Loam	26.3		0.03	15.3	
S0709096-018	05-SP-07	28-60	52.0	28.0	20.0	Loam	18.5		0.03	9.09	
S0709096-019	06-SP-07	0-6	48.0	32.0	20.0	Loam	19.4		0.05	12.5	
S0709096-020	06-SP-07	6-55	42.0	33.0	25.0	Loam	12.6	0.79	0.18	1.60	<0.02

These results apply only to the samples tested.

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Lab ID	Sample ID	Depths Inches	Sand %	Silt %	Clay %	Texture	Very Fine Sand %	Boron ppm	TKN %	Phosphorus ppm	Selenium ppm
S0709096-021	06-SP-07	55-80	50.0	30.0	20.0	Loam	21.5		0.01	15.7	
S0709096-022	07-SP-07	0-6	58.0	27.0	15.0	Sandy Loam	20.6		0.04	14.6	
S0709096-023	07-SP-07	6-11	60.0	24.0	16.0	Sandy Loam	25.0		0.04	14.6	
S0709096-024	07-SP-07	11-28	60.0	24.0	16.0	Sandy Loam	18.8		0.03	10.7	
S0709096-025	07-SP-07	28-40	52.0	30.0	18.0	Sandy Loam	17.3		0.03	5.62	
S0709096-026	08-SP-07	0-9	46.0	37.0	17.0	Loam	14.7		0.04	15.7	
S0709096-027	08-SP-07	9-17	44.0	37.0	19.0	Loam	21.9		0.06	14.2	
S0709096-028	08-SP-07	17-36	46.0	37.0	17.0	Loam	18.4		0.02	11.8	
S0709096-029	08-SP-07	36-60	52.0	33.0	15.0	Sandy Loam	21.5		<0.01	11.0	
S0709096-030	09-SP-07	0-6	60.0	26.0	14.0	Sandy Loam	25.1		0.05	18.6	
S0709096-031	09-SP-07	6-12	49.0	32.0	19.0	Loam	22.5		<0.01	9.72	
S0709096-032	09-SP-07	12-30	50.0	29.0	21.0	Loam	26.0		<0.01	10.7	
S0709096-033	09-SP-07	30-60	42.0	44.0	14.0	Loam	23.0		<0.01	15.9	
S0709096-034	10-SP-07	0-7	68.0	21.0	11.0	Sandy Loam	20.6		0.11	12.9	
S0709096-035	10-SP-07	7-18	48.0	33.0	19.0	Loam	22.5		<0.01	14.9	
S0709096-036	10-SP-07	18-40	50.0	29.0	21.0	Loam	23.4		<0.01	11.0	
S0709096-037	10-SP-07	40-70	49.0	33.0	18.0	Loam	21.8		<0.01	11.8	
S0709096-038	11-SP-07	0-5	61.0	23.0	16.0	Sandy Loam	28.3		<0.01	18.6	
S0709096-039	11-SP-07	5-13	52.0	28.0	20.0	Loam	23.5		<0.01	16.6	
S0709096-040	11-SP-07	13-33	57.0	26.0	17.0	Sandy Loam	22.2		0.01	15.6	

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Lab ID	Sample ID	Depths Inches	Sand %	Silt %	Clay %	Texture	Very Fine Sand %	Boron ppm	TKN %	Phosphorus ppm	Selenium ppm
S0709096-041	11-SP-07	33-55	46.0	30.0	24.0	Loam	24.2		<0.01	14.7	
S0709096-042	11-SP-07	55-80	40.0	34.0	26.0	Loam	26.1		0.01	11.1	
S0709096-043	12-SP-07	0-6	54.0	30.0	16.0	Sandy Loam	21.5		<0.01	18.9	
S0709096-044	12-SP-07	6-12	53.0	31.0	16.0	Sandy Loam	22.5		0.01	16.7	
S0709096-045	12-SP-07	12-24	57.0	28.0	15.0	Sandy Loam	27.7		0.05	15.9	
S0709096-046	12-SP-07	24-36	55.0	30.0	15.0	Sandy Loam	23.4		0.03	16.6	
S0709096-047	12-SP-07	36-52	56.0	30.0	14.0	Sandy Loam	29.4		0.03	17.8	
S0709096-048	12-SP-07	52-75	56.0	29.0	15.0	Sandy Loam	26.7		<0.01	18.8	
S0709096-049	13-SP-07	0-8	62.0	22.0	16.0	Sandy Loam	21.2		0.10	17.3	
S0709096-050	13-SP-07	8-25	88.0	6.0	6.0	Sand	20.9	0.77	0.38	1.44	<0.02
S0709096-051	13-SP-07	25-41	58.0	29.0	13.0	Sandy Loam	24.6		<0.01	16.7	
S0709096-052	13-SP-07	41-70	66.0	21.0	13.0	Sandy Loam	22.0		<0.01	12.7	

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Lab ID	Sample ID	Depths Inches	CO3 %	Total Carbon %	TOC %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t
S0709096-001	01-SP-07	0-6	1.5	43.0	42.8				
S0709096-002	01-SP-07	6-14	1.6	43.8	43.6				
S0709096-003	01-SP-07	14-24	4.1	5.5	5.0				
S0709096-004	02-SP-07	0-6	1.4	2.4	2.3				
S0709096-005	02-SP-07	6-17	1.0	1.5	1.4				
S0709096-006	02-SP-07	17-32	1.0	1.2	1.0				
S0709096-007	02-SP-07	32-44	1.0	1.1	0.9				
S0709096-008	03-SP-07	0-6	1.6	6.6	6.4				
S0709096-009	03-SP-07	6-18	1.2	8.1	7.9				
S0709096-010	03-SP-07	18-30	1.2	2.1	1.9				
S0709096-011	03-SP-07	30-40	1.2	1.2	1.1				
S0709096-012	04-SP-07	0-6	1.2	3.5	3.3				
S0709096-013	04-SP-07	6-11	0.8	1.5	1.4				
S0709096-014	04-SP-07	11-20	0.7	0.6	0.5				
S0709096-015	04-SP-07	20-40	1.1	0.4	0.2				
S0709096-016	05-SP-07	0-8	0.8	0.7	0.6				
S0709096-017	05-SP-07	8-28	1.2	0.2	<0.1				
S0709096-018	05-SP-07	28-60	0.7	0.2	0.1				
S0709096-019	06-SP-07	0-6	2.4	3.7	3.5				
S0709096-020	06-SP-07	6-55	5.4	22.7	22.2	0.31	9.67	47.4	37.7

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
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Lab ID	Sample ID	Depths Inches	CO3 %	Total Carbon %	TOC %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t
S0709096-021	06-SP-07	55-80	0.7	1.3	1.2				
S0709096-022	07-SP-07	0-6	1.1	2.5	2.4				
S0709096-023	07-SP-07	6-11	1.2	1.1	1.0				
S0709096-024	07-SP-07	11-28	0.8	0.7	0.6				
S0709096-025	07-SP-07	28-40	0.6	0.2	0.2				
S0709096-026	08-SP-07	0-9	1.3	14.6	14.4				
S0709096-027	08-SP-07	9-17	1.0	2.3	2.2				
S0709096-028	08-SP-07	17-36	0.5	0.4	0.3				
S0709096-029	08-SP-07	36-60	0.9	0.2	0.1				
S0709096-030	09-SP-07	0-6	0.9	1.4	1.3				
S0709096-031	09-SP-07	6-12	0.4	0.4	0.4				
S0709096-032	09-SP-07	12-30	1.0	0.3	0.2				
S0709096-033	09-SP-07	30-60	0.7	0.2	0.1				
S0709096-034	10-SP-07	0-7	1.2	17.6	17.5				
S0709096-035	10-SP-07	7-18	1.0	1.0	0.9				
S0709096-036	10-SP-07	18-40	0.6	0.4	0.3				
S0709096-037	10-SP-07	40-70	3.0	0.4	<0.1				
S0709096-038	11-SP-07	0-5	0.8	2.0	1.9				
S0709096-039	11-SP-07	5-13	1.1	0.6	0.5				
S0709096-040	11-SP-07	13-33	1.0	0.4	0.3				

These results apply only to the samples tested.

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Lab ID	Sample ID	Depths Inches	CO3 %	Total Carbon %	TOC %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t
S0709096-041	11-SP-07	33-55	0.8	0.2	0.1				
S0709096-042	11-SP-07	55-80	1.1	0.1	<0.1				
S0709096-043	12-SP-07	0-6	0.9	1.0	0.9				
S0709096-044	12-SP-07	6-12	1.3	4.1	3.9				
S0709096-045	12-SP-07	12-24	0.6	1.1	1.0				
S0709096-046	12-SP-07	24-36	1.2	1.0	0.8				
S0709096-047	12-SP-07	36-52	0.7	0.9	0.8				
S0709096-048	12-SP-07	52-75	0.9	0.6	0.5				
S0709096-049	13-SP-07	0-8	1.2	11.8	11.6				
S0709096-050	13-SP-07	8-25	1.5	62.9	62.7	0.36	11.4	14.1	2.72
S0709096-051	13-SP-07	25-41	1.0	2.7	2.5				
S0709096-052	13-SP-07	41-70	0.7	0.7	0.6				

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Sample ID	Begin Depth	End Depth	pH s.u.	Saturation %	Electrical Conductivity dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	SAR
01-SP-07	0	6	7.3	39.8	0.44	2.48	0.89	0.34	0.43	0.26
01-SP-07	6	14	7.4	40.8	0.46	2.92	0.87	0.32	0.28	0.23
01-SP-07	14	24	7.7	50.5	1.15	7.19	1.75	1.42	0.12	0.67
02-SP-07	0	6	6.6	36.0	0.49	1.48	0.64	0.82	1.40	0.79
02-SP-07	6	17	6.8	35.4	0.54	0.84	0.79	1.10	1.32	1.22
02-SP-07	17	32	7.2	33.4	1.91	6.10	2.99	4.37	3.95	2.05
02-SP-07	32	44	7.4	36.0	3.60	15.1	8.52	7.30	5.75	2.12
03-SP-07	0	6	6.5	47.6	0.62	2.05	1.09	1.51	1.31	1.21
03-SP-07	6	18	6.9	38.4	0.66	2.57	1.06	1.47	1.10	1.09
03-SP-07	18	30	7.2	34.7	2.00	8.14	2.53	3.12	2.31	1.35
03-SP-07	30	40	7.6	32.8	3.73	18.4	6.53	6.67	3.23	1.89
04-SP-07	0	6	6.6	47.7	0.26	1.32	0.76	0.74	0.63	0.72
04-SP-07	6	11	6.6	32.8	0.29	1.52	0.61	0.16	0.44	0.15
04-SP-07	11	20	6.7	30.0	0.28	1.41	0.55	0.26	0.41	0.26
04-SP-07	20	40	6.9	33.0	0.28	1.44	0.54	0.33	0.15	0.33
05-SP-07	0	8	6.5	31.5	0.27	1.54	0.49	0.27	0.21	0.27
05-SP-07	8	28	6.7	29.0	0.19	0.66	0.48	0.51	0.19	0.68
05-SP-07	28	60	7.1	29.3	0.24	1.03	0.49	0.55	0.10	0.62
06-SP-07	0	6	7.3	30.6	0.45	3.01	0.87	0.28	0.31	0.20
06-SP-07	6	55	7.4	34.2	1.32	7.04	4.61	1.99	0.29	0.82
06-SP-07	55	80	6.2	32.1	1.53	10.4	5.66	0.34	0.29	0.12
07-SP-07	0	6	6.6	38.4	0.37	1.74	0.67	0.27	0.70	0.24
07-SP-07	6	11	6.5	34.2	0.23	0.98	0.48	0.34	0.36	0.40
07-SP-07	11	28	6.6	29.6	0.23	1.23	0.50	0.24	0.30	0.26
07-SP-07	28	40	7.1	27.9	0.35	2.16	0.72	0.31	0.08	0.26
08-SP-07	0	9	6.5	47.6	0.26	1.21	0.45	0.18	0.55	0.20
08-SP-07	9	17	6.6	37.3	0.30	1.59	0.58	0.25	0.37	0.24
08-SP-07	17	36	6.6	26.2	0.18	0.84	0.35	0.16	0.27	0.21
08-SP-07	36	60	6.7	24.3	0.23	0.91	0.53	0.28	0.25	0.33
09-SP-07	0	6	6.5	38.6	0.30	1.42	0.54	0.16	0.57	0.16
09-SP-07	6	12	6.5	28.8	0.21	1.02	0.40	0.17	0.31	0.20
09-SP-07	12	30	6.5	33.0	0.19	0.91	0.49	0.28	0.15	0.34
09-SP-07	30	60	6.9	34.7	0.17	0.87	0.38	0.27	0.06	0.34
10-SP-07	0	7	6.9	33.4	0.37	2.44	0.76	0.16	0.29	0.13
10-SP-07	7	18	6.6	28.6	0.17	0.96	0.38	0.15	0.15	0.18
10-SP-07	18	40	6.7	30.0	0.15	0.82	0.23	0.18	0.07	0.25
10-SP-07	40	70	7.3	29.0	0.40	2.89	0.56	0.22	0.09	0.17
11-SP-07	0	5	6.8	40.8	0.33	1.74	0.64	0.22	0.68	0.20
11-SP-07	5	13	6.4	31.8	0.34	1.45	0.70	0.34	0.52	0.33
11-SP-07	13	33	6.6	29.4	0.26	1.46	0.55	0.23	0.28	0.23
11-SP-07	33	55	6.8	35.4	0.20	1.11	0.50	0.27	0.13	0.30
11-SP-07	55	80	7.1	37.1	0.33	1.34	0.70	0.64	0.17	0.63
12-SP-07	0	6	7.1	36.3	0.42	2.19	0.77	0.13	0.89	0.11

Sample ID	Begin Depth	End Depth	pH s.u.	Saturation %	Electrical Conductivity dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	SAR
12-SP-07	6	12	7.2	34.7	0.24	0.98	0.42	0.14	0.86	0.17
12-SP-07	12	24	7.2	31.5	0.26	1.22	0.45	0.13	0.70	0.15
12-SP-07	24	36	7.4	33.0	0.32	2.05	0.72	0.17	0.36	0.15
12-SP-07	36	52	7.4	31.0	0.40	2.45	0.75	0.23	0.32	0.18
12-SP-07	52	75	7.8	29.8	0.38	2.20	0.79	0.27	0.30	0.22
13-SP-07	0	8	7.0	35.0	0.45	2.49	0.99	0.22	0.54	0.16
13-SP-07	8	25	6.2	67.9	0.23	1.39	0.46	0.07	0.06	0.07
13-SP-07	25	41	6.8	31.7	0.35	2.46	0.56	0.08	0.20	0.07
13-SP-07	41	70	6.6	25.8	0.40	1.98	0.77	0.19	0.39	0.17

Sample ID	Alkalinity meq/L	Sand %	Silt %	Clay %	Texture	Very Fine Sand %	Boron ppm	TKN %
01-SP-07	1.99	66.0	24.0	10.0	Sandy Loam	14.9		0.30
01-SP-07	1.99	70.0	19.0	11.0	Sandy Loam	17.6		0.46
01-SP-07	2.39	37.0	41.0	22.0	Loam	18.6		0.10
02-SP-07	1.19	47.0	37.0	16.0	Loam	22.6		0.07
02-SP-07	1.79	46.0	36.0	18.0	Loam	25.0		0.02
02-SP-07	1.19	47.0	36.0	17.0	Loam	26.4		0.06
02-SP-07	1.99	40.0	38.0	22.0	Loam	23.5		0.08
03-SP-07	1.99	46.0	35.0	19.0	Loam	25.4		0.06
03-SP-07	2.98	48.0	34.0	18.0	Loam	25.9		0.04
03-SP-07	2.59	42.0	37.0	21.0	Loam	26.8		0.06
03-SP-07	1.69	42.0	37.0	21.0	Loam	24.1		0.01
04-SP-07	1.39	54.0	29.0	17.0	Sandy Loam	23.1		0.14
04-SP-07	1.59	49.0	34.0	17.0	Loam	24.0		0.09
04-SP-07	1.39	50.0	32.0	18.0	Loam	22.4		0.03
04-SP-07	1.49	54.0	25.0	21.0	Sandy Clay Loam	21.9		0.04
05-SP-07	1.29	45.0	33.0	22.0	Loam	23.4		0.05
05-SP-07	0.70	55.0	24.0	21.0	Sandy Clay Loam	26.3		0.03
05-SP-07	1.09	52.0	28.0	20.0	Loam	18.5		0.03
06-SP-07	3.58	48.0	32.0	20.0	Loam	19.4		0.05
06-SP-07	1.99	42.0	33.0	25.0	Loam	12.6	0.79	0.18
06-SP-07	0.50	50.0	30.0	20.0	Loam	21.5		0.01
07-SP-07	2.29	58.0	27.0	15.0	Sandy Loam	20.6		0.04
07-SP-07	1.29	60.0	24.0	16.0	Sandy Loam	25.0		0.04
07-SP-07	1.19	60.0	24.0	16.0	Sandy Loam	18.8		0.03
07-SP-07	2.19	52.0	30.0	18.0	Sandy Loam	17.3		0.03
08-SP-07	1.39	46.0	37.0	17.0	Loam	14.7		0.04
08-SP-07	1.49	44.0	37.0	19.0	Loam	21.9		0.06
08-SP-07	1.09	46.0	37.0	17.0	Loam	18.4		0.02
08-SP-07	0.90	52.0	33.0	15.0	Sandy Loam	21.5		<0.01
09-SP-07	2.09	60.0	26.0	14.0	Sandy Loam	25.1		0.05
09-SP-07	1.19	49.0	32.0	19.0	Loam	22.5		<0.01
09-SP-07	1.00	50.0	29.0	21.0	Loam	26.0		<0.01
09-SP-07	1.19	42.0	44.0	14.0	Loam	23.0		<0.01
10-SP-07	2.79	68.0	21.0	11.0	Sandy Loam	20.6		0.11
10-SP-07	1.00	48.0	33.0	19.0	Loam	22.5		<0.01
10-SP-07	0.80	50.0	29.0	21.0	Loam	23.4		<0.01
10-SP-07	2.59	49.0	33.0	18.0	Loam	21.8		<0.01
11-SP-07	2.59	61.0	23.0	16.0	Sandy Loam	28.3		<0.01
11-SP-07	1.79	52.0	28.0	20.0	Loam	23.5		<0.01
11-SP-07	1.39	57.0	26.0	17.0	Sandy Loam	22.2		0.01
11-SP-07	1.79	46.0	30.0	24.0	Loam	24.2		<0.01
11-SP-07	2.19	40.0	34.0	26.0	Loam	26.1		0.01
12-SP-07	3.18	54.0	30.0	16.0	Sandy Loam	21.5		<0.01

Sample ID	Alkalinity meq/L	Sand %	Silt %	Clay %	Texture	Very Fine Sand %	Boron ppm	TKN %
12-SP-07	1.79	53.0	31.0	16.0	Sandy Loam	22.5		0.01
~~12-SP-07~~	1.99	57.0	28.0	15.0	Sandy Loam	27.7		0.05
12-SP-07	1.99	55.0	30.0	15.0	Sandy Loam	23.4		0.03
12-SP-07	2.79	56.0	30.0	14.0	Sandy Loam	29.4		0.03
12-SP-07	2.29	56.0	29.0	15.0	Sandy Loam	26.7		<0.01
13-SP-07	3.28	62.0	22.0	16.0	Sandy Loam	21.2		0.10
13-SP-07	0.50	88.0	6.0	6.0	Sand	20.9	0.77	0.38
13-SP-07	1.69	58.0	29.0	13.0	Sandy Loam	24.6		<0.01
13-SP-07	1.69	66.0	21.0	13.0	Sandy Loam	22.0		<0.01

Sample ID	Phosphorus ppm	Selenium ppm	CO3 %	Total Carbon %	TOC %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t
01-SP-07	11.9		1.5	43.0	42.8				
01-SP-07	12.7		1.6	43.8	43.6				
01-SP-07	12.6		4.1	5.5	5.0				
02-SP-07	30.7		1.4	2.4	2.3				
02-SP-07	34.3		1.0	1.5	1.4				
02-SP-07	26.8		1.0	1.2	1.0				
02-SP-07	17.5		1.0	1.1	0.9				
03-SP-07	35.6		1.6	6.6	6.4				
03-SP-07	45.2		1.2	8.1	7.9				
03-SP-07	45.2		1.2	2.1	1.9				
03-SP-07	17.6		1.2	1.2	1.1				
04-SP-07	15.1		1.2	3.5	3.3				
04-SP-07	14.2		0.8	1.5	1.4				
04-SP-07	12.0		0.7	0.6	0.5				
04-SP-07	14.3		1.1	0.4	0.2				
05-SP-07	14.3		0.8	0.7	0.6				
05-SP-07	15.3		1.2	0.2	<0.1				
05-SP-07	9.09		0.7	0.2	0.1				
06-SP-07	12.5		2.4	3.7	3.5				
06-SP-07	1.60	<0.02	5.4	22.7	22.2	0.31	9.67	47.4	37.7
06-SP-07	15.7		0.7	1.3	1.2				
07-SP-07	14.6		1.1	2.5	2.4				
07-SP-07	14.6		1.2	1.1	1.0				
07-SP-07	10.7		0.8	0.7	0.6				
07-SP-07	5.62		0.6	0.2	0.2				
08-SP-07	15.7		1.3	14.6	14.4				
08-SP-07	14.2		1.0	2.3	2.2				
08-SP-07	11.8		0.5	0.4	0.3				
08-SP-07	11.0		0.9	0.2	0.1				
09-SP-07	18.6		0.9	1.4	1.3				
09-SP-07	9.72		0.4	0.4	0.4				
09-SP-07	10.7		1.0	0.3	0.2				
09-SP-07	15.9		0.7	0.2	0.1				
10-SP-07	12.9		1.2	17.6	17.5				
10-SP-07	14.9		1.0	1.0	0.9				
10-SP-07	11.0		0.6	0.4	0.3				
10-SP-07	11.8		3.0	0.4	<0.1				
11-SP-07	18.6		0.8	2.0	1.9				
11-SP-07	16.6		1.1	0.6	0.5				
11-SP-07	15.6		1.1	0.4	0.3				
11-SP-07	14.7		0.8	0.2	0.1				
11-SP-07	11.1		1.1	0.1	<0.1				
12-SP-07	18.9		0.9	1.0	0.9				

Sample ID	Phosphorus ppm	Selenium ppm	CO3 %	Total Carbon %	TOC %	Total Sulfur %	T.S. AB t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t
12-SP-07	16.7		1.3	4.1	3.9				
~~12-SP-07~~	15.9		0.6	1.1	1.0				
12-SP-07	16.6		1.2	1.0	0.8				
12-SP-07	17.8		0.7	0.9	0.8				
12-SP-07	18.8		0.9	0.6	0.5				
13-SP-07	17.3		1.2	11.8	11.6				
13-SP-07	1.44	<0.02	1.5	62.9	62.7	0.36	11.4	14.1	2.72
13-SP-07	16.7		1.0	2.7	2.5				
13-SP-07	12.7		0.7	0.7	0.6				

APPENDIX 3: Field Pedon Descriptions

BC	9-14-06		60°	Soil:	Depth:	Longitude: ° ' " W	10-14-06	Sec.	T.	R.	D-1

e:	mE:	mN:	Topo Quad.:	Site ID:	YR:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:
	0486235	4397806				UTAH	CARBON		KINNEY		

:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
WTAN	VALLEY				290°	6	SIMPLE	PLANAR - SLIGHTLY

rofile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
WER.		CONCAVE					

	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
SIL	YES	—	MOIST TO 12"	MODERATE Ksat:	RABBITBRUSH - ASTRVA

erial:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
UVIUM, MIXED	MIXED COLLUVIUM + ALLUVIUM	

Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL:	Diagnostic Horz. / Prop.: Kind: Depth:
OD.	MODERATE	Kind: 20 / 25 / 5	—

l Section: Ave. Clay %:	Ave. Rock Frag %:	
ge: 22-26	<15%	D-1 COLUMBINE PORTAL WEST.

VEGETATION :

COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

D-1 COLUMBINE PORTAL

SAMPLED 0-6" } RE-CLAIMED/GRADED
6-15 }
A (BURED) 16-25
25-40
40-65
65-95+

1½ FEET OF RE-CLAIMED SOIL OVER A.C.C
STILLWATER DEPOSITS
VERY LITTLE COAL FINES PRESENT BELOW 2FT

PHOTO #15 (P)

D-1
p-2

Method	(in)	(cm)			Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
PIT	0	6	BUR				GRV SL	35 GR 10CB	SG → 1F GR	SO	FR	SO	PO	NONE
"	6	16	BUR				GRV SL	35 GR 10CB	1M SBK → SG	SO	FR	SO/PO		
BROUGHT TO PIT	16	25	A/B				LOAM	15 GR 3CB	1M-F SBK	SH	FR	SS/PO		NATIVE BURIED SOIL BLANKET
	25	40	C1				GR LOAM	15 GR 5CB	1M-F SBK	HA	FI	SS/PO		
	40	65	C2				GR. LS	20 GR 5CB	LOOSE	SO	VFR	SO/PO		
	65	95+	C3				LS	15 GR 10CB	SG	LO	LO	SO/PO		

Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
			2VF, FF, 1M						SURFACE SEDIMENTS
			1VF, F						11.YRS ↑ SUBSOIL + 15% COAL FINES
			1VF, F						<5% COAL FINES
			1VF, F						IN POCKETS 10% COAL FINES
			1VF						& 15% SOFT MEDIA PROBLEM ERTD

-1

D-2

BK	10-14-06	CLOUDY	Soil:	Depth:	Longitude: ° ' " W	Datum: 10-14-06	Location: Sec. T. R.	
Zone: mE: mN: 0426806 4397782	Topo Quad.:		Site ID: YR: State: County: Pedon #: UT CARBON		Soil Survey Area: KINNEY	MLRA / LRU:	Transect: ID: Stop #: Interval:	

scape: WEL	Landform: TOESLOPE	Microfeature:	Anthro:	Elevation:	Aspect: 310°	Slope (%): 4	Slope Complexity: SINGLE	Slope Shape: (Up & Dn / Across) COMPLEX
ope Profile Position: KNOLL	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:	

age: WEL	Flooding: NONE	Ponding:	Soil Moisture Status: MOIST TO 12"	Permeability: MODERATE Ksat:	Land Cover / Use: LOW SAGEBRUSH
it Material: COLLUVIUM	Bedrock: Kind: Fract.: Hard.: Depth: COLLUVIAL LANDSLIDE DEPOSIT			Lithostrat. Units: Group: Formation: Member:	
on: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind: 25 15 5 5		Diagnostic Horz. / Prop.: OCHRIC	Kind: Depth:
Control Section: Ave. Clay %: <20 Ave. Rock Frag %: 50-60%		D-2 (EAST) RE-GRADED PORTAL AREA OF COLUMBINE MINE, SE EDGE TORNADO BOY			

VEGETATION :

BOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

D-2 COLUMBINE PORTAL

SAMPLED: 2 0-6
6-24

TOO ROCKY BELOW THIS
TO BE USEFUL TOPSOIL

PHOTO (P) 16

USTORTHENT, LO-SK.

D-2
P-2

Map Unit Symbol: Date:

Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
A	0-6	BWR				SBV LOAM	2Sg 30S 10st	SG	LO	FR	SO	PO	
	6-24	BWR				stv LOAM	2vg 35cb 15st	SG	LO	FR	SO	PO	
BC	24-45+	C				stv SL	15g 25g 35st	SG	LO	FR	SO	PO	TOO STONY TO SAMPLE

BACKHOE

Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
			INF-F						Mixed use of subsoil
			INF-F						COLLUVIUM MIXED BY
			VINF						NO SAMPLED : ROCKS
C-D									

Describer(s):	Date:	Weather: Temp.: Air:	Latitude: ° ' " N	Datum:	Location: D-3
BC	10-16-06	PARTLY CLOUDS Soil: Depth:	Longitude: ° ' " W		Sec. T. R.

UTM: Zone:	mE:	mN:	Topo Quad.:	Site ID: YR:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID:
0	0486886	4398188			UT	CARBON	D-3	KUNNEY		Stop #: Interval:

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MTN.	SIDESLOPE			2359 m	320°	16		COMPLEX

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
LOWER							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL			MOIST 10.16"	MOD Kest:	ROBBITBRUSH - GRASSES

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
MIXED COLLUVIUM W/ MINE WASTE MATERIALS		

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL:	Diagnostic Horz. / Prop.: Kind: Depth:
SLIGHT		Kind: 5 3 2 2 4 TR (coal)	—

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %:	
Depth Range: <35 26%	D-3 CRUSHER SORTING MED WITH SOME COAL IN PEDON, DISCONTINUOUS

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED 0-10"

10-20" MIXED COAL <15%, BOR WASTE MATERIAL FROM MINE NEAR

20-40"

40-70"

60-75"

30% OF 10 FEET LONG EXCAVATION WAS COAL FINES + CLUMPS THOUGH I SAMPLED AROUND THESE LENSES

LOWER LIVE RECLAIMED SUBSOIL → PRESENT

TOPSOIL TO 20" THEN SUBSOIL MIX / COLLUVIUM / COAL ON SOIL TRENCH FACE, MORE COAL IN PEDON BELOW THAN LOWER 40"

D-3
P-2

Component Name: | Map Unit Symbol: | Date:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0 - 10	A DLS					10gr 5CB 5st	1M-F SBK → MSBK	SH	FR	SS	PO	
2		10 - 20	Bt DLS				GR LCOS	15gr 10CB 5st	2M-F SBK	SH	SH	SS	PS	
3		20 - 40	Bt2 DLS				CB CL	10gr 15CB 3st	2M-C SBK	VH	VFI	S	P	
4	BARCHOE PIT	40 - 60	C1				CBN CL	20CB 15gr 10st	3M-C SBK	VH	VFI	S	P	
5		60 - 75+	C2				CBN CL	15gr 20CB 10st	MASSIVE	EH	EF	S	P	
6														
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F						25% COAL
2				2VF 1F						15% COAL CLASTS
3				1VF						12% COAL PIECES
4				1VF						10% ON FACE CHANNELS
5										>10% ON FACE
6										
7										
8										
9	D-3									

Describer(s):	Date:	Weather: Temp.: Air: 47°	Latitude: ° ' " N Datum:	Location: D-4
BC	10-15-06	SUN Soil: Depth:	Longitude: ° ' " W	Sec. T. R.

UTM: Zone:	mE:	mN:	Topo Quad.:	Site ID: YR: State: County: Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID:
WP 20	0486840	4398109		UTAH CARBON D-4			Stop #: Interval:

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
TOESLOPE				2358 m	270°	22		

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL-SPD			Moist to 16"	MOD SLOW Ksat:	Artrtri RABBITBRUSH/

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
WASTE MATERIAL	NONE	

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: COA	Diagnostic Horz. / Prop.: Kind: Depth:
SLIGHT-MOD	RILL ON SLOPES > 40%	Kind: 15 15 5 5 3 6	NONE

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %:	
Depth Range: >35%	D-4 50 FEET FROM SR-92 AT LEAST 12 FEET BURIED COAL AT THIS SITE

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

0-8" SCRAPED SUBSOILS (RECLAIMED DRY COAL DUMP SITE)
8-16" 2 "

D-4
P-2

	Obser. Method	Depth (in)	Depth (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0	8	DIST SUBSOIL				CB CL	15 GR 5CB 5st	MASSIVE 1F SBK	SH	FI	S	P	15% coal 12% coal
2		8-16	12-47	COAL WASTE					10GR 10CB						75% "
3		12-47	47-85	COAL WASTE.					15GR 15CB						90% "
4		47-85	85-114	COAL WASTE (MOIST)					10GR 2CB						95% "
5															
6															
7															
8															
9															
10															

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1										
2										
3										
4										
5										
6										
7										
8										
9	7-D									
10										

Describer(s):	Date:	Weather:	Temp.:	Air:	Latitude:	Datum:	Location:
BC	10-15-06	51	Soil:	Depth:	Longitude:		Sec. T. R. D-5

UTM: Zone:	mE:	mN:	Topo Quad.:	Site ID:	YR:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect:	ID:
	0486845	4398123				UTAH	CARBON	D-5	KINNEY		Stop #:	Interval:

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MTN.	SIDESLOPE			2370M	290	21	COMPLEX	[illegible]

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
LOWER							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
MOD WELL				MOD	RABBITBRUSH, TEND P
				Kest:	

Parent Material:	Bedrock: Kind:	Fract.:	Hard.:	Depth:	Lithostrat. Units:	Group:	Formation:	Member:
COLLUVIUM	NONE TO 6 FEET							

Erosion: Kind:	Degree:	Runoff:	Surface Frag %:	GR:	CB:	ST:	BD:	CN:	FL:	Diagnostic Horz. / Prop.:	Kind:	Depth:
NONE			Kind:	10	5	5	3	2				

P.S. Control Section:	Ave. Clay %:	Ave. Rock Frag %:	D-5 DUMP DISTURBANCE [illegible]
Depth Range:	>35	>35	MIDDLE OF COAL WASTE ROCK DISTURBANCE SLOPE

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

DISTURBED 0-6" [illegible]
TURNOVER [illegible]
6-20" LOOSE MATERIAL
20-40 DENSE, STONY
COVER
40-60+ [illegible]
M [illegible] SCRUB [illegible] ASPEN [illegible]

PHOTOS LANDSCAPE #3
PIC 24

D-5
P-2

Map Unit Symbol:

Date:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0 - 6	DISTURBED		1		GRV CL	30 GR 50 SB 5 SH	2 M-C SBK	VH	FI	S	P	NONE
2		6 - 20	D2				GRV CL	35 SG 15 GR 10 SH	2 M-C SBK	VH	VFI	S	P	
3	BACKSLOPE	20-40	D3				CBX CL	25 GR 25 CB 10 SH	3 M-C SBK	VH	VFI	VS	VP	
4		40-68 +	D4				CBX CL	15 SG 30 CB 15 SH	MASSIVE	VH	EFI	VS	VP	
5														
6														
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F						MIXED MINE DUMP FILL MATERIALS
2				2VF 1F						SILTSTONE, WEATHERED SANDSTONE, FLOATER
3				1VF						10-15% CHALCEDONY
4				—						15% CHALCEDONY
5										
6										
7										
8										
9	S-0									
10										

ber(s):	Date:	Weather:	Temp.:	Air:	Soil:	Depth:	Latitude: ° ' " N	Datum:	Location:
BC	10-14-06	CLOUDY	52				Longitude: ° ' " W		Sec. T. R. D-6

Zone:	mE:	mN:	Topo Quad.:	Site ID:	YR:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID:
	0486825	4398031				UT	CARBON		KUNET		Stop #: Interval:

cape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MTN:	SIDESLOPE				260°	30	COMPLEX	R: GROSS AREA

pe Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
LOWER							

ge:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL			MOIST	MODERATE Ksat:	RANGELAND

Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
COLLUVIUM W/ COAL CHIP		

n: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL:	Diagnostic Horz. / Prop.: Kind: Depth:
SLIGHT / SHEET		Kind: 10 12 3 4 2	OCHRIC

ontrol Section: Ave. Clay %: Ave. Rock Frag %:	D-6 CRUSHING / SCREENING
h Range:	

VEGETATION :

BOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED BELOW COAL AND 6" ABOVE
COAL-AFFECTED LAYER CONTAINS SUBSOIL FRAGMENTS
AND VARIES FROM 10-20 INCHES ACROSS TRENCH FACE
SAMPLES 0-7" SAMPLE

PHOTO #17 7-24 X NOT
RETAKE
24-48" SAMPLE

48-72" SAMPLE

EXTREMELY STONY SUBSOIL ATTRIBUTED BY BULDOZING OFF
FROM PREVIOUS WORK

D-6
P-2

Map Unit Symbol: Date:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
1		0-6	A				CB CL	10g 10B 5SH	2M-F ABK	SH	FR	SS	PS	
2		6-24	C dompted		coal		stv	15g 20C 15ST	MASSIVE	—	—	—	—	
3	Buried Soil	24-48	C2				stv CL	20g 20C 15ST	2M-F NBK	VH	VFI	S	P	
4		48-72	C3				stv CL	25g 20B 10ST	2F ABK	EH	VFI	S	P	
5														
6														
7														
8														
9														
0														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				1 VF, 1F						SHALE FRAGMENT, SOME ORGANICS.
2				1VF						75% coal FWB NOT SPARKLE
3				1VF						<15% coal TOO STONY
				1F 1M						<15% coal
	9-0									

Zone:	mE:	mN:	Topo Quad.:	Site ID: YR:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID: D-7 Stop #: Interval:
	0486843	4398018			UTAH	CARBON				

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
[illegible]	SIDESLOPE			2375M	280°	28	COMPLEX	CONVEX

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
LOWER							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL	NONE		MOIST TO 14"	MODERATE	RABBITBRUSH - GRASS

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
COLLUVIUM	—	

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Kind: Depth:
SLIGHT		10 5 5 3	—

Control Section: Range:	Ave. Clay %:	Ave. Rock Frag %:	
	> 30%	45%	D-7 CORING - SOIL PIT DATA

VEGETATION :

COL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLE DEPTHS 0-6"

6-28"

ALL DISTURBED

28-42"

42-58"

BURIED SOIL 58.75"

B HORIZON

TEMPORARILY CLEAR UPPER 3 FEET

MORE FRAGMENTS 3-6 60"

PHOTO # 19 (P)

D-7
P-2

Pedon Unit Symbol: | Date:

Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
	0-6	D1				CB CLAY	10gr 10CB SSt	2M-F SBK	SH	FR	S	P	NONE
	6-20	D2				CBV CL	15gr 3CB 3st	2C-M SBK	SH	FR	VS	VP	
	20-42	D3				CBV CL	25gr 20CB 5st	2F-M SBK	WD	FR	S	PS	
	42-58	D4				CBV CL	2M-F ABK	10gr 5st 25CB	VH	EFR	S	P	
	58-75+	B6				CB LM	MASSIVE	15CB 3gr MASSIVE	VH	EFR	SS	PS	

Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
			VF VF					MIX-	OR SOILS MORE CLAY W/ SOME CINDERS
			VF VF						DIS. ROOTS
			VF						<10% COAR
			VF-F						10% CONT + 15% WEATHERED SED MOVED BY
			VF						BURIED B
L-O									

D-8

USDA-NRCS

PEDON DESCRIPTION

Pedon ID # :

Draft

Mar-02

Series or Component Name:	Map Unit Symbol:	Photo #:	Classification:	Soil Moist. Regime (Tax.): USTIC

Describer(s): BC	Date: 10-15-06	Weather: Temp.: 45° Air: CLEAR Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

UTM: Zone: mE: mN: 0486812 4398013	Topo Quad.:	Site ID: YR: State: UTAH County: CARBON Pedon #: D-8	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:		

Landscape: MTN.	Landform: SIDESLOPE	Microfeature:	Anthro:	Elevation: 2382m	Aspect: 260°	Slope (%): 43	Slope Complexity: COMPLEX	Slope Shape: (Up & Dn / Across) CONCAVE

Hillslope Profile Position: LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage: WELL	Flooding:	Ponding:	Soil Moisture Status: MOIST TO 13"	Permeability: MODERATE Ksat:	Land Cover / Use: ASPEN - SYR DREC

Parent Material: COLLUVIUM	Bedrock: Kind: Fract.: Hard.: Depth: K FM	Lithostrat. Units: Group: Formation: Member:	

Erosion: Kind: SLUMP Degree: SLIGHT	Runoff:	Surface Frag %: GR: 5 CB: 3 ST: 3 BD: 2 CN: 2 FL: Kind:	Diagnostic Horz. / Prop.: Kind: MOLLIC ACROLIC Depth: 0-13 13-48"	

P.S. Control Section: Ave. Clay %: Depth Range: 30-35%	Ave. Rock Frag %: <35%	D-8	

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED D-6

6-13

13-26"

26-48

48+ TOO STONY NOT SAMPLED

Oi 1/2-0 DISCONTINUOUS LEAF LITTER

PHOTOS (P) 20-21

Component Name: | Map Unit Symbol: | Date: D-8 p-2

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0 - 6	A				LOAM	5gr 3cb 3st	1F GR	SO	VFR	NS	NP	None
2		6 - 13	BA				CB LOAM	5gr 2cb 5st	1F-M GR	SO	VFR	NS	NP	
3	BA Cutler	13 - 26	Bt				CB CL	10gr 10cb 5st	1F-M SBK	WA	FI	SS	SP	
4		26 - 48	Btz				STV CL	15cb 1st 5gr	2M SBK	WA	VFI	SS	SP	
5		48 - 78	C				STX LOAM	25st 15cb 15gr	MASSIVE	VIA	VFI	SS	PS	
6														
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F 2M						
2				2VF, 1F 1M						
3				1VF-F 1M						
4				1F						
5				1VF						NOT SAMPLED BY WINESS
6										
7										
8										
9										
10	D-8									

D-9A

USDA-NRCS

PEDON DESCRIPTION

Pedon ID # :

Draft Mar-0

Series or Component Name:	Map Unit Symbol:	Photo #:	Classification:	Soil Moist. Regime (Tax.):

Describer(s): BC	Date: 10-15-06	Weather: Temp.: Air: CLEAR 56° Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

UTM: Zone: mE: 0486867 mN: 4398243	Topo Quad.:	Site ID: YR: State: UT County: CARBON Pedon #: D-9A	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:	

Landscape: MTN	Landform: LOWER	Microfeature:	Anthro:	Elevation: 2367m	Aspect: 270°	Slope (%): 19	Slope Complexity: SINGLE	Slope Shape: (Up & Dn / Across) PLANAR → SL CONCAVE

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage: MODERATE	Flooding:	Ponding:	Soil Moisture Status: MOISTURE	Permeability: MOD Ksat:	Land Cover / Use:

Parent Material: WASTE DUMP	Bedrock: Kind: Fract.: Hard.: Depth: NONE	Lithostrat. Units: Group: Formation: Member:

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Kind: Depth: DISTURBED PER DUD RRT

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %:
Depth Range: 15-30% SFC

D-9A DISTURBED DUMP SITE COVERED BY 15" WASTE ROCK-SOIL MIX SLO

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

COAL DUMP 0-16 OVERBURDEN
6-15
15-80 COAL NOT SAMPLED
BURIED NATIVE SOIL DEGN W/ FEW CAL FRG
SAMPLED 0-6 6-16
— COAL —
30-95"
95-115
115-140+
PHOTOS 23-24 + END OF ROLL 1

D-9A
P-2

Component Name:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1	Backhoe	0-6	DISTURBED				GRN CL	15GR 5CB	1f 2M F SBK					
2		6-15	DIST 2				CL	25GR 10CB	2M SBK					
3		15-80	Coal				COAL	FINE+	FRIABLE MASSIVE					
4	AUGER	80-95	Ab				Loam	15GR 10COBB	1M-F GR					
5	AUGER	95-115	Bt b				Lt	5GR 5COBB	2M-F SBK					
6	AUGER	115-140	BtCb				Loam	15GR 5CB	2M SBK					
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F						MIXED SUBSOIL & WASTE ROCK
2				1VF 1F						
3				—						COAL BURNER
4				—						↓ NATIVE BURN
5				—						↓ NATIVE
6										
7										
8										
9										
10	Vb-0									

D-9B

USDA-NRCS

PEDON DESCRIPTION

Pedon ID # :

Draft Mar-02

Series or Component Name:	Map Unit Symbol:	Photo #:	Classification:	Soil Moist. Regime (Tax.):

Describer(s): BC	Date: 10-15-06	Weather: Temp.: Air: Soil: Depth:	Latitude: ° ' " N Datum: Longitude: ° ' " W	Location: Sec. T. R.

UTM: Zone: mE: mN:	Topo Quad.:	Site ID: YR: State: County: Pedon #: D-9B	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:	

Landscape: MTN	Landform: SIDESLOPE	Microfeature:	Anthro:	Elevation:	Aspect: 300	Slope (%): 22"	Slope Complexity:	Slope Shape: (Up & Dn / Across) COMPLEX

Hillslope Profile Position: LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage: MOD. WELL	Flooding:	Ponding:	Soil Moisture Status:	Permeability: Ksat:	Land Cover / Use: RANGELAND

Parent Material: COLLUVIUM / WASTE ROCK / COAL DUMP	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Kind: Depth:

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %: Depth Range:	D9-B

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

DISTURBED DUMP AREA

SAMPLED 3

0-6 } SUBSOIL REPLACED
6-11 } DISTURBED

52-80" } BURIED NATIVE SOIL
80-102"

D-9B
P-2

Component Name: | **Map Unit Symbol:** | **Date:**

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0-11	MIXED SUBSOIL OVER WASTE MATERIAL				GRV CL	10GR 10GB 3SA						
2		11-29	CGRL SA-PAES W SUBSOIL 50-75%					15gr 10GB						
3		29-52	CGRL SA W/ SUBSOIL 95%					TR GR.						
4	Backhoe Pit	52-80	Bb				LOAM	—						
5	Auger	80-95	Bb				GR L	15 g 10GB						
6	Auger													
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2vf 1f						
2				2vf 1f						
3				3vf						NOT SAMPLED
4				—						
5				—						AUGER REJECTED
6					0f					
7										
8										
9										
10	Tb-9									

D-10

USDA-NRCS **PEDON DESCRIPTION** Pedon ID #: Draft Mar-02

Series or Component Name:	Map Unit Symbol: D-10	Photo #:	Classification:	Soil Moist. Regime (Tax.):

Describer(s): BC	Date: 10-15-06	Weather: Temp.: Air: SUNNY 60° Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W	Datum:	Location: Sec. T. R.

UTM: Zone: mE: 0486935 mN: 4398310	Topo Quad.:	Site ID: YR: State: UT	County: CARBON	Pedon #: D-10	Soil Survey Area: KINNEY	MLRA / LRU:	Transect: ID: Stop #: Interval:

Landscape: MTN	Landform: SIDESLOPE	Microfeature:	Anthro:	Elevation: 2380M	Aspect: 300°	Slope (%): 4	Slope Complexity:	Slope Shape: (Up & Dn / Across)

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage:	Flooding: Ponding:	Soil Moisture Status:	Permeability: Ksat:	Land Cover / Use: ASPEN - SAGEBRUSH

Parent Material: COLLUVIUM FROM MIXED SEDIMENTARY	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:	

Erosion: Kind: Degree: NONE	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Kind: Depth:

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %: Depth Range: >35%

D-10 SLOPE CUT BACK BY OLD MINEWORKS

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED 05"

5-11"

ALL MIXED COMPOSITES OF COLLUVIAL SUBSOILS 11-23 } MIXED COLLUVIAL MAT

23-35 }

35-60 NOT SAMPLED TOO STONY

D-10
P-2

Component Name: | **Map Unit Symbol:** | **Date:**

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0 - 5	A				LOAM	Sgr 3CB	2M-F GR	SO	FR	SO	PO	
2		5 - 11	BT1				CL		2M-F SBK	SH	FI	SS	PS	
3		11-23	BT2				CL		2M-F ABK	HA	FI	S	P	
4		23-45	BT3				CLAY		SC ABK	HA	VFI	VS	VP	
5		45-65+	C				LOAM		MASSIVE	VH	VFI	VS	VP	
6														
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				VF VF VM LC						SOIL SEE FROM APPROVED MAPS
2				VF VF VM LC						W/ LOT CLAY FACES
3				VF-F VM						OLD COLLUVIAL
4				VF						
5				—						
6										
7										
8										
9										
10	D-10									

riber(s): BC	Date: 10-16-06	Weather: 47° Temp.: Air: SUNNY Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W	Datum:	Location: Sec. T. R. D-11
Zone: 2	ME: 0486825 ~~4398831~~	Topo Quad.:	Site ID: YR: State: UTAH	County: CARBON Pedon #: D-11	Soil Survey Area: KINNEY
MLRA / LRU:	Transect: ID: Stop #: Interval:				

scape: TOE SLOPE	Landform: MTN	Microfeature:	Anthro:	Elevation: 2349M	Aspect: 290°	Slope (%): 11%	Slope Complexity: COMPLEX	Slope Shape: (Up & Dn / Across) CONCAVE
ope Profile Position: LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:	

age: SRO	Flooding:	Ponding: YES	Soil Moisture Status: WET	Permeability: MSLOW Ksat:	Land Cover / Use: RABBITBRUSH

nt Material: COLLUVIUM / WASTE SUBSOIL / COAL	Bedrock: Kind: Fract.: Hard.: Depth:			Lithostrat. Units: Group: Formation: Member:	
on: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: COAL Kind:		Diagnostic Horz. / Prop.: Kind: Depth:	

Control Section: Ave. Clay %: >35% Ave. Rock Frag %: >45% Below 60"
th Range:

D-11 MAY BE OUTSIDE LEASED LINE TO WEST SLIGHTLY
WET AT BASE OF SLOPE 70" TO WATER TABLE

VEGETATION :

IBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED 0-12"

COAL 12-62 NOT SAMPLED

62-80" SAMPLED THROUGH KNEE OF STAY >35%
80+ NOT SAMPLED POURED 20 INTO POOL
70" WATER STANDING IN PIT

20 FT FROM OLD RR TRACKS, THIS MAY BE
JUST BEYOND LEASE AREA TO WEST

D-11
P-2

Component Name:								Map Unit Symbol:								Date:
Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc			
1	0-12	SUBSOIL RECLAIMED				GRV CL	15GR 3SA 10CB						8%			
2	12-62	CLAY	W/ SOME SUBSOIL MIXED				15GT						90%			
3	62-80	C NATIVE SOIL				GRV CLAY	30GR 15CB 10ST	MA					25% CLAY			
4	80-90+					GRV CLAY	40GR 25CB	MASSIVE								
5																
6																
7																
8																
9																
0																

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F						
2				1VF 1F						
3										
4										BELOW WATER
5										
6										
7										
8	11-0									

D-12

SDA-NRCS PEDON DESCRIPTION

Pedon ID # : | Draft | Mar-02

...e or Component Name:	Map Unit Symbol:	Photo #:	Classification: Pachic Argiudoll, Fine-loamy	Soil Moist. Regime (Tax.): Ustic

...riber(s): BC	Date: 10-15-06	Weather: Rainy Temp.: Air: 50° Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

...: Zone: UP 119	mE: 0436774	mN: 4397969	Topo Quad.:	Site ID: YR: State: Utah	County: Carbon	Pedon #: D-12	Soil Survey Area: Kinney	MLRA / LRU:
Transect: ID: Stop #: Interval:								

...lscape: Mountain	Landform: Sideslope	Microfeature:	Anthro:	Elevation: 2370 m	Aspect: 330°	Slope (%): 22	Slope Complexity: Single	Slope Shape: (Up & Dn / Across) Concave

...lope Profile Position: Toeslope	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

...nage: Well	Flooding:	Ponding:	Soil Moisture Status: Moist to 16"	Permeability: Moderate Ksat:	Land Cover / Use: Aspen w/ Sagebrush

...nt Material: Mixed Sedi. Mat'ry Colluvium	Bedrock: Kind: Fract.: Hard.: Depth: Rock	Lithostrat. Units: Group: Formation: Member:

...ion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Pachic Argillic Kind: Depth:

Control Section: Ave. Clay %: <35% Ave. Rock Frag %: <35% ...pth Range:	Crusting - Sorting (Shooting Gallery)

VEGETATION :

...MBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

Deep rock free toeslope to 7½ ft

0-6' Coal not affecting the surface here

6-14

14-28

28-48

48-66

D-12
P-2

Component Name: | **Map Unit Symbol:** | **Date:**

	Obser. Method	Depth (in)	Depth (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1	↑	0	6	A1				GR SL	5 GR	2 M-F GR	SO	VFR	SO	PO	
2		6	14	A2				GR LOM	5 GR	2 MGR 2 M-F SBK	SO	FR	SO	PO	
3	W Bt	14	28	BAT				GR CL	14 GR 5 CB	3 F-M SBK	VH	VF	SS	PS	
4	Bt	28	48	B12				STX CL	25 GR 15 CB 15 ST	3 C-M SBK	EH	EFI	VS	VP	
5	Bt ↓	48	66+	B13/C				CBX CL	35 GR 20 CB 10 ST	MASSIVE	EH	EFI	VS	VP	
6															
7															
8															
9															
10															

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3 VF 1C 2F 2M						1/2-0" LEAF DISCW. LITTER
2				3 VF 2F 1M 1C						
3				2 VF 1F						
4				1 VF						SOME WEATHER SILT AND SS FRAGMENTS
5				V 1 VF						WEATHERING CHUNKS OF [illegible]
6										
7										
8										
9										
10	D-1									

1A-2

SDA-NRCS PEDON DESCRIPTION

Pedon ID #: | Draft | Mar-02

s or Component Name:	Map Unit Symbol:	Photo #:	Classification:	Soil Moist. Regime (Tax.):

riber(s): BL	Date: 10-15-06	Weather: Temp.: 52° Air: Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

Zone:	mE: 0486932	mN: 4398464	Topo Quad.:	Site ID: YR: State: UTAH County: CARBON Pedon #: 1A-2	Soil Survey Area: KINNEY	MLRA / LRU:	Transect: ID: Stop #: Interval:

scape: MTN	Landform: SIDESLOPE	Microfeature:	Anthro:	Elevation: 2380M	Aspect: 320°	Slope (%): 30%	Slope Complexity: COMPLEX	Slope Shape: (Up & Dn / Across) CONVEX

ope Profile Position: LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

sage: WELL	Flooding:	Ponding:	Soil Moisture Status: MOIST TO 20"	Permeability: MODERATE Ksat:	Land Cover / Use: ASPEN - Artrva

nt Material: Colluvium	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member: RABBITHOLE

ion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind: 5 2 2	Diagnostic Horz. / Prop.: MOLLIC Kind: Depth:

Control Section: Ave. Clay %: <35% Ave. Rock Frag %: >35% th Range:	1A-2 LOWER TOESLOPE WITH 12-15" COAL ON SFC AND 1/2" LEAF LITTER

VEGETATION :

MBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

COAL FINE 0-15" NOT SAMPLED

15-25 BURIED A

25-40"

40-60

60-75

75-90"

1A-2
p-2

Component Name: | Map Unit Symbol: | Date:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont Col Mst Shp Loc
1		0-15	DUMPED COAL		FINES +	CHUNKS		5GR 5CH	LOOSE					
2		15-25	Ab				LOAM	3gr 5CB	2F-MGR	SO	FR	SO	PO	
3	BS	25-40	Bt				LOAM	5gr 5CB	2MGR SBK	SO	FR	SO	PO	
4	BS	40-60	BC				LOAM	5gr 5CB 3CH	MASSIVE	SH	FI	SS	PS	
5	BS	60-75"	C1				GR SL	10GR 10CB 5CH	MASSIVE	SH	FI	SO	PO	
6		75-90"	C2				GR SL	15gr 15CB	MASSIVE	HD	FI	SO	PO	
7														
8														
9														
0														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				2VF 1F 1M 1C						COAL MIXED WITH LEAF LITTER
2				3F 2M 2C 2VF						BEGINS NATURAL MOLLIC PROFILE
3				1F, 1M						
4				1F, M						
5				1VF 1F	1F					
6										
7										
8										
9										
0										

TOP 1

2A-1

USDA-NRCS PEDON DESCRIPTION

Pedon ID # : | Draft | Mar-02

Series or Component Name:	Map Unit Symbol: 2A-1	Photo #:	Classification: 1 ARGIUSTOLL, FINE-LOAMY	Soil Moist. Regime (Tax.): USTIC

Describer(s): BC	Date: 10-14-06	Weather: Temp.: Air: CLOUDY 60° Soil: Depth: 6½	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

UTM: Zone: mE: 0486811 mN: 4397900	Topo Quad.:	Site ID: YR: State: UTAH	County: CARBON	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:

Landscape: MTN.	Landform: TOESLOPE	Microfeature:	Anthro:	Elevation: 2372 M	Aspect: 270°	Slope (%): 27	Slope Complexity: SIMPLE	Slope Shape: (Up & Dn / Across) CONCAVE

Hillslope Profile Position: LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:

Drainage: WELL	Flooding:	Ponding:	Soil Moisture Status: MOIST TO 15"	Permeability: Ksat:	Land Cover / Use: GRASS + SAGEBRUSH

Parent Material: COLLUVIUM	Bedrock: Kind: Fract.: Hard.: Depth: BRACHIANE FM	Lithostrat. Units: Group: Formation: Member:	

Erosion: Kind: Degree: NONE	Runoff: MODERATE	Surface Frag %: Kind:	GR: 12	CB: 2	ST: 3	BD: 2	CN: 10	FL:	Diagnostic Horz. / Prop.: MOLLIC ARGILLIC Kind: Depth:

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %: Depth Range: 25-30%	2A-1 TRANSFER

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED 5 INCREMENTS 0-10"
10-24"
24-44"
44-65"
65-90 INCHES

BACKHOE PIT!
6½ FEET PHOTO (P) #15

SOIL MIXING FROM LANDSLIDE MOVEMENT.
MASS WASTING BELOW 44"
HORIZONS INDISTINCT BELOW THIS ↑ DEPTH

IN SITU WEATHERING OF SS + SHALE IN LOWER 2 HORIZONS

2 A-1
P-2

Component Name: | **Map Unit Symbol:** | **Date:**

	Obser. Method	Depth (in)	Depth (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1	pit	0	10	A					10GR 5CB	1M-FGR					
2	"	10	24	AB					15GR 5CB	2M-FSBK					
3	"	24	44	Bt					15gr 15CB 5ST	3M-FSBK					
4	"	44	65	Bt/C					20GR 15gr 10ST 5BY	MA					
5	"	65	80+	C					20GR 10CB 15st 5GY	MASSIVE					
6															
7															
8															
9															
10															

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3VF 1F						
2				2VF, 1F						
3				1VF 1F						
4				VIVF						
5				1F						
6										
7										
8										
9										
10	1/C									

Describer(s):	Date:	Weather: Temp.: Air:	Latitude: ° ' " N	Datum:	Location:
BC	10-14-06	CLOUDY Soil: Depth:	Longitude: ° ' " W		Sec. T. R. 2A-2

UTM: Zone: mE: mN:	Topo Quad.:	Site ID: YR: State: County: Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID: Stop #: Interval:
0486835 4397839	[illegible]	UTAH 2A-2	KINNEY		

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MOUNTAIN	SIDESLOPE					24	SINGLE	PLANAR → SL CONCAVE

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
MIDDLE → LOW							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
MODERATE			MOIST TO 15"	MOD Kest:	GRASS + SAGEBRUSH

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
COLLUVIUM FROM SANDSTONE		

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: Kind: Depth:
NONE		15 5 3 4	MOLLIC

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %: Depth Range:	2A-2 TRANSFER
25-30%	

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

BACKHOE PIT / TRANSMISSION LINE RT
5½ FT DEEP

SAMPLED 0-5 2A-2
5-14
14-25 ≈25% SLOPE
25-38
38+ NO SAMPLE

PHOTO # 17 (P)

2A-2
P-2

Pedon Name: | Pedon Number: | Pedon Classification: | Pedon Site Symbol: | Date:

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp
1		0-5	A1				Loam	5 gr 5 cb	2M. Gr.	SO	VFR	SO	PO	
2		5-14	A2				Gr L	10 gr 5 cb	2M. F Gr	SO	FR	SO	PO	
3		14-25	BN				Gr Loam	10 gr 10 cB 5 st	2M SBK	HA	VFI	SS	PS	
4		25-38	B/C				Gr Loam	20 gr 10 cB 5 st 5 ch	2F-M ABK	HO	VFI	S	PS	NO
5		38-(60)	C2				Stx Ch	20 cr 10 cB 25 st 10 ch	MASSIVE	VH	VFI	SS	PS	
6														
7														
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3VF, 2F, 1M						
2				2VF 2F, 1M						
3				1VF						MIXED SANDS & WEATHERING SANDSTONE
4				/						PIECES OF ROCK
5				1, VF						
6										
7										
8										
9	ove									

Zone:	mE:	mN:	Topo Quad.:	Site ID: YR: State: County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID:	Stop #:	Interval:
0486976	4398624		10-15-06		2A-3	KINNET		2A-3		

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MTN	SIDESLOPE			2384M	300°	27%	SINGLE	CONCAVE

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
MIDDLE							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL			MOIST TO 13"	MODERATE Ksat:	

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
COLLUVIUM FROM SANDSTONE + SILTSTONE		

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL:	Diagnostic Horz. / Prop.: Kind: Depth:
MASS WASTING / SLUMPING		Kind: 10 5 2 2 2	MOLLIC

Control Section: Ave. Clay %: Ave. Rock Frag %:	
Depth Range:	2A-3 NATIVE SOIL DEEPER A HORIZON UNDER SAGEBRUSH HUMMOCKS UP TO 10-16" DEPTH

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED 0-9"

9-19

19-36

36-52

52-70" NOT SAMPLED SHOULDER MIXED COLLUVIUM

	Method	(in) (cm)			Dry	Moist		Knd % Rnd Sz	Grade Sz Type	Consistence Dry	Mst	Stk	Pls	Notes % Sz Cont. Col Mst Shp Loc
1		0 - 9	A				GR SLOAM	10gr5cb	2M GR	SO	FR	SO	PO	NONE
2		9 - 19	Bt				GR LOAM+	15gr 3cb	2F-M SBK	SH	FI	SS	PO	
3	CUT	19-36	Bt2				CBV CL	10g 15cb 10ck	2M-C ABK	VH	FI	S	P	
4	CUT	36-52	C1				STV CL	15g 15c 20st	3F-M SBK	EH	EF	S	P	
5	CUT	52-75"	C2				BYN CL	20st 15bk	MASSIVE	EH	EF	VS	VP	
6														
7														
8														
9														
0														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3VF 2F 1M						
2				1VF, 1F						
3				1VF, 1F						
				1VF						WEATHERED CHERT COLLUVIUM
				1VF						WEATHERED SILTSTONE AND SANDSTONE COLLUVIUM
	E-VC									

Component Name: 2A-5 SUPER SPRUCE | Map Unit Symbol: | Date: 10-16-06

	Obser. Method	Depth (in)	Depth (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont Col Mst Shp Loc
1	PEDOCT	0	6	A				STK LOM	10gr 1SST 1SBY	2M-F GR	SO	VFR	SO	SO	
2	PEDED	6	12	D				SiL LOM	15gr 1SST 1SBY	2MSBK>MGR	SO	FR	PO	PO	
3	PEDED	12	24	Bt				SiL C	10CB 10gr 1SST	2M-F BK	HA	F		P	
4	Bt PEDED	24	48	Bt				CR CLAY	25g 1SBR	3M PR	FH	EF	VS	VP	(common) LSD
5		48	65+	BC				GR CLAY	25g 1CB	3MSBK MBK	EH	EF	VS	VP	
6															
7															
8															
9															
0															

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3VF 2F						
2				2VF 1F 1M						
3				1VF						
4				1F						
5										
6										
7										
8										
9										
0	2A-5									

2A-5

2A-5
P-2

LOAD-OUT SITE

BELOW RR TRACK 100 M SE OF SUPERIOR SPUR

SAGEBRUSH/RABBITBRUSH COMPLEX HUMMOCKY TOPOGRAPHY

28% 280° ASPECT

INTRUS. RABBITBRUSH

BELOW ROAD TO TOWN

Site ID:	YH:	State:	County:	Pedon #:	Soil Survey Area:	MLRA / LRU:	Transect: ID:	Stop #:	Interval:
WR22	0486808 4397820	UT	CARBON	2A6	KINNEY		2A6		

Landscape:	Landform:	Microfeature:	Anthro:	Elevation:	Aspect:	Slope (%):	Slope Complexity:	Slope Shape: (Up & Dn / Across)
MTN..	SLUMP/LANDSLIDE DEPOSIT			2379m	310°	23	COMPLEX	COMPLEX HUMMOCKY

Hillslope Profile Position:	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:	State Physio. Area:	Local Physio. Area:
LOWER							

Drainage:	Flooding:	Ponding:	Soil Moisture Status:	Permeability:	Land Cover / Use:
WELL			MOIST TO 15"	MODERATE Ksat:	ARTNA - GRASSES

Parent Material:	Bedrock: Kind: Fract.: Hard.: Depth:	Lithostrat. Units: Group: Formation: Member:
COLLUVIUM	MIXED SEDIMENTARY	

Erosion: Kind: Degree:	Runoff:	Surface Frag %: GR: CB: ST: BD: CN: FL:	Diagnostic Horz. / Prop.: Kind: Depth:
SLIGHT		Kind: 5 2 2 2 TR	PACHIC ARGILLIC

P.S. Control Section: Ave. Clay %: Ave. Rock Frag %:	
Depth Range: 21 <35	NEWER RUNOUT INTO COLUMBINE MINE DEEP ROCK-FREE LANDSLIDE DEPOSIT ~5' NE OF FENCELINE

VEGETATION :

SYMBOL	COMMON NAME	%GD COVER

MISCELLANEOUS FIELD NOTES / SKETCH :

SANDLEY 0-6"
6-12"
12-24
24-40
40-66
66-85+

SOME OF THE BEST-APPEARING TOPSOIL ON PROJECT AREA

2A-6

P-2

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
1	↑	0 6	A1				L	Tr GR CB	2M1 GR	SO	VFR	SO	PO	
2	SLOPE,	6 - 12	A2				L	3 gr 2 cb	1M SBK → MGR	SO	FR	SO	PO	
3	ROAD CUT	12 - 21	Bw1				Gt	5 gr 3 cb	2M-F SBK	SO	FI	SS	PO	
4	LOCATION	21 - 40	Bw2				LOAMY	5 gr 3 cb	2M SBK	SH	FI	SS	PO	
5		40-66	C				GR LOAM	10 gr + cb	2M-C SBK	SH	FI	SS	PO	
6	↓	66-85+	C				LOAM	20 GR+CB	MASSIVE	HA	FI	SS	PO	
7								5% +BY						
8														
9														
10														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1				3vf 2f 1m						
2				2vf 1f 1m						
3				Vf 1F						
4				VF						BELOW COLLUVIUM
5				VF						w/ WEATHERED SS AND FEW BOULDERS
6										
7										
8	9-VC									
9										

UPS UT0641 721104 2B & 2B-1

DA-NRCS PEDON DESCRIPTION

Pedon ID # : | Draft | Mar-02

s or Component Name:	Map Unit Symbol: 2B-1	Photo #:	Classification:	Soil Moist. Regime (Tax.): Xeric

riber(s): BE	Date: 10-14-06	Weather: Temp.: Air: Cloudy Soil: Depth:	Latitude: ° ' " N Longitude: ° ' " W Datum:	Location: Sec. T. R.

Zone: 04	mE: 486811	mN: 4397900	Topo Quad.:	Site ID: YR: State: UT	County: CARBON	Pedon #:	Soil Survey Area: KINNEY MINE

MLRA / LRU:	Transect: ID: Stop #: Interval:	scape:	Landform: MTN SLOPE	Microfeature:	Anthro:	Elevation: 2404 M	Aspect: 280	Slope (%): 46

Slope Complexity: PLANAR	Slope Shape: (Up & Dn / Across) STRAIGHT	ope Profile Position: MIDDLE-LOWER	Geom. Component:	Microrelief:	Physio. Division:	Physio. Province:	Physio. Section:

State Physio. Area:	Local Physio. Area:	age: WELL	Flooding:	Ponding:	Soil Moisture Status: DRY	Permeability: Ksat: MODERATE	Land Cover / Use: GRASS / BRUSH

t Material: COLLUVIUM	Bedrock: Kind: Fract.: Hard.: Depth: BLACK HAWK FM.	Lithostrat. Units: Group: Formation: Member:	ion: Kind: Degree: SLIGHT	Runoff: RAPID	Surface Frag %: GR: CB: ST: BD: CN: FL: Kind:	Diagnostic Horz. / Prop.: MALLIC	Kind:	Depth:

Control Section: Ave. Clay %: th Range:	Ave. Rock Frag %: 25	2B-1 TRANSPORT ROUTE, SWITCHBACK

VEGETATION :

MBOL	COMMON NAME	%GD COVER
	SAGEBRUSH	
	SERVICEBERRY	
	RABBITBRUSH	
	GRASSES	

MISCELLANEOUS FIELD NOTES / SKETCH :

SAMPLED INCREMENTS [illegible]

PHOTO PENTAX CAMERA (P) #14 [illegible]

SOILS BELOW 19 MIXED MASS WASTING + COLLUVIUM REFLECTED C-CC

Component Name: | Map Unit Symbol: | Pit: 2B-1 P-2

	Obser. Method	Depth (in) (cm)	Horizon	Bnd	Matrix Color Dry	Matrix Color Moist	Texture	Rock Frag Knd % Rnd Sz	Structure Grade Sz Type	Consistence Dry	Consistence Mst	Consistence Stk	Consistence Pls	Mottles % Sz Cont. Col Mst Shp Loc
1		0 - 9	A				L-m	3gr 10cB St						None
2		9 - 19	Bt				cL	20gr 10cB St						—
3		19 - 33	Bt				cL	20gr 15cB 10st						—
4		33 - 51	BC				cL	15gr 15cB 15st						—
5		51 - 80	Cr		SANDSTONE	SANDSTONE		MIXED WITH	IRON	R BEDS		Black Hawk Fm		
6		80+	R		IRON	SANDSTONE		BEDROCK						
7														
8														
9														
0														

	Redoximorphic Features % Sz Cn Hd Sp Kd Loc Bd Col	Concentrations % Sz Cn Hd Sp Kd Loc Bd Col	Ped / V. Surface Features % Dst Cont Kd Loc Col	Roots Qty Sz Loc	Pores Qty Sz Shp	pH (meth)	Effer. (agent)	Clay %	CCE	Notes
1										
2										
3										
4										
5										
6										
7										
8										
9										
0	1-8 C									

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

01-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
3A	CUMULIC ENDOAQUOLL, CO-FAMILY	9-5-07	BL				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KUNEY MINE			UT	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COAL RUN-OUT WITH ALLUVIUM	MIXED		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock a. GR	b. CB	c. ST	d. BY
FLOODPLAIN	3	CONCAVE	100'	180°	SPD	3	0	0	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
WEEDY WITH THISTLE			

HORIZON DESIGNATION (a)	DEPTH (b) INCHES	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	TEXTURE (d) LAB %	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	FIELD pH (i) LAB	BOUNDARY (j)
D1	0-6	10YR 2/1	10YR 5/2	/	SL 10 [28]	2F SBK	SH	FI	SO PO	/	GR-10 CB-0 ST-0	3VF 1F	2VF IN 1F TU	NE	7.3	C.W
D2	6-14	10YR 2/2	10YR 4/2	/	SL [19]	2F SBK	SH	FI	SO PO	/	GR-5 CB-0 ST-0	2VF 1F	1VF IN 1F TU	NE	7.4	A.W
Ab	14-24	10YR 3/2	10YR 5/2	2FAINT 15%	LOAM SILT LOAM 22 [91]	MASS VE	VH	VFI	SS PO	/	GR-0 CB-0 ST-0	1VF 1F	2VF IN	NE	7.7	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-24	16	4	>60 EST.

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	CUMULIC	—	10-40"

Previous edition obsolete.

FS-2500-1 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

HAPLOCAMBOLL (Reference FSH 2509.18) 02-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
3A	FINE-LOAMY CUMULIC HAPLOXEROLL	95-07	BK				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY #2				CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind ___ b. Class ___
ALLUVIUM	MIXED		

18. Landform	19. Slope: a. % 7 b. Shape ___ c. Length ___ d. Aspect ___	20. Drainage Class	21. Surface Stone and Rock a. GR 0 b. CB 0 c. ST — d. BY 0
FLOODPLAIN TERRACE			

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
BIG SAGEBRUSH			45" +

HORIZON DESIGNATION (a)	INCH DEPTH (b)	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	LAB TEXTURE (d) [%C]	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	SPECIAL FEATURES (g) Roots (3)	SPECIAL FEATURES (g) Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A1	0-6	10YR 3/2	10YR 5/2	/	LOAM 16 [20]	2M-F SBK	SH	FR	SS PO	/	GR-0 CB-0 ST-0	3VF 1F 1M		NE	6.6	A.W
A2	6-17	10YR 3/3	10YR 5/3	/	L 18 [22]	2M SBK	SH	FR	SS PS	/	GR-0 CB-0 ST-0	2VF 1F		NE	6.8	A.S
A3	17-32	10YR 3/3	10YR 5/2	/	~~SILT~~ LOAM 17 [23]	2M-C SBK	HA	FI	S RS	/	GR-3 CB-0 ST-0	1VF		NE	7.2	A.S
BW	32-44	10YR 3/3	10YR 5/3	/	~~SIL~~ LOAM 22 [25]	2C-M SBK	SH	FI	S PS	/	GR-0 CB-0 ST-0	1VF		NE	7.4	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:

Previous edition obsolete.

FS 2500-1 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

03-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
3A	FLOAMY CUMMULIC HAPLOCRYOLL	9-5-07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY #2			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind ___ b. Class ___
ALLUVIUM	—		

18. Landform	19. Slope: a. % 3 b. Shape CONCAVE c. Length 200 d. Aspect 350	20. Drainage Class	21. Surface Stone and Rock a. GR ___ b. CB ___ c. ST ___ d. BY ___
FLOODPLAIN		SPD	

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
SEDGES + GRASS			

HORIZON DESIGNATION (a)	DEPTH (b) INCHES	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	TEXTURE (d) LAB %	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	FIELD pH (i) LAB	BOUNDARY (j)
	0-6	10YR 2/1	10YR 3/2	/	Loam 19	2M-F GR	SO	VFR	SO PO	/	GR - TR CB - 0 ST - 0	3VF 1F 1M	2VF IN 1F TU	NE	6.5	C, W
	6-11	10YR 4/1	10YR 3/2	/	Loam 18	2M-C gr	SO	FR	SS PO	/	GR - 0 CB - 0 ST - 0	2VF 2F	3VF IN 1F T	NE	6.9	C, W
	11-20	10YR 4/3	10YR 3/2	1n pores	Loam 21	2M-F SBK	SO	FI	SS PS	/	GR - / CB - / ST - /	1VF 1F	1VF IN 1F TU	NE	7.2	C, S
	20-40	10YR 5/3	10YR 4/2	2n pores	Loam 21	3M-C SBK	SH	FI	SS PO	/	GR - / CB - / ST - /	1VF	1VF TU 1F IN	NE	7.6	
											GR - CB - ST -					
											GR - CB - ST -					
											GR - CB - ST -					
											GR - CB - ST -					
											GR - CB - ST -					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40	20	0	>60" EST.

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	CAMBIC	10-40"

Previous edition obsolete.

FS-2500-1 (2/86)

NOT DISTURBED

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

-04-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
2A	LOAMY-SKEL TYPIC HAPLUSTOLL	9/5/07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
FANSLOPE	16	CONCAVE	120'	260°	WD	TR	3	TR	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table *(Depth)*
GRASSES, BIG SAGEBRUSH W/SNOWBERRY			

HORIZON DESIGNATION (a)	DEPTH (b) INCH	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	LAB TEXTURE (d) %	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A1	0-6	10YR 3/2	10YR 5/3	/	S LOAM 17 19	2M-F SBK	SO	VFR	SO PO	/	GR-2 CB-2 ST-0	1VF 2F 1M	2VF IN	NE	6.6	C, S
A2	6-11	10YR 3/3	10YR 5/2	/	STV LOAM 17 20	3F-M ABK	VH	VFI	SS PS	/	GR-5 CB-20 ST-20	1VF 1F	2VF IN 1F TV	NE	6.6	G, W
Bw	11-20	7.5YR 5/4	7.5YR 6/4	/	STX SL LOAM 18 17	3M-F ABK	VH	VFI	SS PS	/	GR-10 CB-20 ST-25	1VF	1VF TV	NE	6.7	G, W
C	20-40	7.5YR 5/4	7.5YR 6/2	/	SCL 21 15	MASSIVE	SH	FI	SO PO	/	GR-0 CB-0 ST-0	/	1VF IN 1VF TV	NE	6.9	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40"	19%	39%	>60 EST

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	CAMBIC	10-40"

Previous editions obsolete.

FS 2500-1 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

MISSING A HORIZON

CARBON / DISTURBED

05-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location:
DA 05	DISTURBED	9/5/07	BC				Sec. ___ T. ___ R. ___

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion:
COLLUVIUM	SANDSTONE		a. Kind NONE b. Class

18. Landform	19. Slope:	20. Drainage Class	21. Surface Stone and Rock
TOESLOPE	a. % 4 b. Shape PLANE c. Length 50' d. Aspect	WD	a. GR 10 b. CB 5 c. ST 2 d. BY TR

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
GRASS + SAGEBRUSH SOIL SURFACE SCARRED			NONE

HORIZON DESIGNATION (a)	INCH DEPTH (b)	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	LAB TEXTURE (d)	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	SPECIAL FEATURES (g) % of Rock Fragments (2)	SPECIAL FEATURES (g) Roots (3)	SPECIAL FEATURES (g) Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
B	0-8	7.5YR 4/4	7.5YR 6/4	/	LOAM 22 [27]	2CPL 1FSBK	HA	VFI	S PS	/	GR-5 CB-5 ST-5	2VF 1F	2VF IN 2F TV	NE	6.5	CS
C1	8-28	7.5YR 5/4	7.5YR 6/4	/	CBL LOAM SANDY 21 [24]	2M-F SBK	HA	VFI	S PS	/	GR-10 CB-15 ST-10	1VF 1F	1VF-F TV	NE	6.7	CW
C2	28-60	7.5YR 6/4	7.5YR 7/4	/	STGL 20 [22]	2M-F SBK	HA	FI	SS PO	/	GR-15 CB-20 ST-20	1VF	1VF-F TV	NE	7.1	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	/	/	

Previous edition obsolete.

FS 2500-1 (2/86)

USDA - Forest Service

06-SP-07

SOIL DESCRIPTION

(Reference FSH 2509.18)

06-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location:
DA	DISTURBED	9/5/07	BL				Sec. ____ T. ____ R. ____

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion:
COLLUVIUM	SANDSTONE		a. Kind SLIGHT b. Class

18. Landform	19. Slope:	20. Drainage Class	21. Surface Stone and Rock
TOESLOPE / FANSLOPE	a. % 12 b. Shape CONVEX c. Length ____ d. Aspect ____	WD	a. GR 5 b. CB 15 c. ST 5 d. BY ____

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
SAGE RABBITBRUSH ARNUA, PUTR			NONE

HORIZON DESIGNATION (a)	DEPTH (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	LAB TEXTURE (d)	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
REC #1	0-6	10YR 3/1	10YR 4/2	/	LOAM ZC	2MGR	SO	FR	SO PO	/	GR-5 CB-3 ST-3	2VF 1F	2VF IN	NE	7.3	C, W
CUAL	6-55	CUAL FNES SAMPLE			LOAM 25	DURUM MA		SELENIUM ACID / BASE		4% POT.	GR-10 CB-5 ST-15	1VF		NE	7.4	C, S
2B	55-80	10YR 3/2	10YR 5/2	/	LOAM ~~SILT~~ LOAM 20	3C-M SBK	HA	FI	SO PO	/	GR-5 CB-5 ST-6	/	1VF TU	NE	6.2	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Site Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:

Previous edition obsolete.

FS-2500-1 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

07-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
2A	LO-SM TYPIC ARGIUDSTOLL / HAPLISTOLL GR	9/5/07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
FANSLOPE	8	PLANAR	150'	270°	WD	5	5	TR	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
SAGEBRUSH, GRASSES W/ LUPINE & PAINTBRUSH			

HORIZON DESIGNATION (a)	INCH DEPTH (b)	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	TEXTURE (d)	%	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	SPECIAL FEATURES (g) Roots (3)	SPECIAL FEATURES (g) Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A1	0-6	10YR 3/1	10YR 4/2	/	SL	15 / 16	2M GR	SO	VFR	SO PO	/	GR-5 CB-5 ST-0	3VF 2F 1C	3VF IN	NE	6.6	C,S
A2	6-11	10YR 3/3	10YR 5/3	/	SILT LOAM	16 / 19	2F SBK → FGR	SO	VFR	SO PO	/	GR-15 CB-15 ST-5	2VF 2F 1C	2VF IN 1F 1M	NE	6.5	C,W
Bw	11-28	10YR 4/3	10YR 6/3	/	STV SL	16 / 16	MASSIVE	HA	VFI	SO PO	/	GR-15 CB-20 ST-20%	1M 1VF 1F	3VF IN	NE	6.6	G,W
Bt	28-40	7.5YR 5/4	7.5YR 6/4	/	STX SL	18 / 25	MASSIVE	VH	VFI	SO PO	/	GR-20 CB-25 ST-25%	/	2VF TU 2VF IN	NE	7.1	
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40"	17	>50%	>60" EST.

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	CAMBIC	10-40"

Previous edition obsolete.

FS-2500-3 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

08-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
2A	FI-LOMY TYPIC ~~ARGIOSTOLL~~ HAPLUSTOLL	9-5-07	B				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
FINSLOPE	10	CONCAVE	200'	290	WD	2	2	3	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table *(Depth)*
Artr w/ RABBITBRUSH, GRASSES			None

HORIZON DESIGNATION (a)	INCHES DEPTH (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	LAB TEXTURE (d)	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A	0-9	10YR 3/3	10YR 5/3		SLOM 17 [14]	2M-F GR	SO	VFR	SO PO		GR-15 CB-2 ST-0	3VF 2F	3VF-IN	NE	6.5	C, S
BW	9-17	10YR 4/4	10YR 6/3		SLOM 19 [16]	1M SBK → M GR	HA	FI	SO PO		GR-3 CB-2 ST-0	2VF 1F	1VF-IN 2F TU	NE	6.6	C, S
Bt1	17-36	7.5YR 5/4	7.5YR 6/4	GR	LOAM 17 [21]	2M-SBK	SH	FR	SO PO		GR-10 CB-5 ST-0	1VF	1VF-F TU	NE	6.6	G, W
Bt2	36-60	7.5YR 4/4	7.5YR 6/4		SCV SL [15]	3M-C SBK	SH	FR	SO PO		GR-15 CB-10 ST-10	1VF	1VF-F TU	NE	6.7	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40"	18%	15%	>60"

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	CAMBIC	10-40"

Previous edition obs.

FS 2500-1 (2/86)

NOT DISTURBED

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

09-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
2A	FINE-LOAMY TYPIC ~~HAPLUSTALF~~ ARGIUSTOLL	9-6-07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY				CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM			NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
TREESLOPE	7	CONVEX	200	310°	WP	1	3	5	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
ARTUN W / GRASSES			NONE

HORIZON DESIGNATION (a)	DEPTH (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	LAB TEXTURE (d)	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A	0-6	10YR 3/2	10YR 5/3	/	SL 14	1F-M GR	LO	LO	SO PO	/	GR-10 CB-0 ST-10	3VF 2F	3VF IN	NE	6.5	C,S
Bw	6-12	10YR 4/4	10YR 6/3	/	SLOAM 19 16	2M-C SBK	SH	FR	SO PO	/	GR-0 CB-0 ST-10	2VF 1F	1VF IN 2F TU	NE	6.5	C,W
Bt1	12-30	7.5YR 4/4	7.5YR 6/4	/	CL LOAM 21 22	3M ABK	SH	FI	SS PO	/	GR-10 CB-10 ST-/	1VF	1F,VF TU	NE	6.5	G,W
Bt2	30-60	7.5YR 5/4	7.5YR 6/4	/	LOAM 14 25	3M ABK	VH	VFI	SS PS		GR-5 CB-0 ST-0	1VF	1VF-F TU	NE	6.9	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	6-26"	20	< 5%	>60"

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	OCHRIC → MOLLIC	ARGILLIC	10-40"

Previous edition Note: INTERGRADE

FS 2500-1 (2/86)

Map Unit 1-A was later determined to be D-A

DISTURBANCE ON SFC ONLY

SOIL DESCRIPTION

(Reference FSH 2509.18)

ARGICAYOLL

10-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
1A	LO-SK, MIXED, TYPIC ARGIUSTOLL	9-5-07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY #2			UT	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		SLIGHT	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
SIDESLOPE	32	CONVEX	25'	316	WD	5	5	3	0

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
ASPEN · SNOWBERRY			NONE

HORIZON DESIGNATION (a)	DEPTH (inches) (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	LAB TEXTURE (d) %	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
A	0-7	10YR 3/2	10YR 5/2	/	SL 11 15	1M-F SBK	SH	FR	SO PO	/	GR-10 CB-5 ST-10	1VF-F 2M2C	3VF IN	NE	6.9	C,W
Bt1	7-17	7.5YR 6/4	7.5YR 6/4	/	CL GL LOAM 19 28	2M-F SBK	VH	VFI	S/P	1MPF 1MPO	GR-5 CB-15 ST-5	1VF-F 2M2C	3VF IN 2FTV	NE	6.6	C S
Bt2	17-40	7.5YR 5/4	7.5YR 6/2	/	ST V LOAM SCL 28	3M-C ABK	HA	VFI	S/P	2MMPF 1MPO	GR-10 CB-10 ST-15	1M 1C	1VF TV 1F IN	NE	6.7	G,W
Bt3	40>70	7.5YR 5/4	10YR 6/4	/	ST X LOAM 18 26	3M-C SBK	VH	VFI	SS/PS	2MPPO	GR-10 CB-15 ST-30	1VF	2VF IN 1F TV	NE	7.3	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	72"	20%	30%	>60"

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	ARGILLIC	10-40"

Previous edition obsolete.

FS-2500-3 (2/86)

SOIL DESCRIPTION

ARGIUSTOLL (Reference FSH 2509.18)

11-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
2B	LD-SURLETAL TYPIC HAPLOSTOLL	9-6-07	BL				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		None	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
TOESLOPE LANDSLIDE DEPOSIT	32	CONVEX	50'	290°	WD				

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
BIG SAGEBRUSH, GRASSES, RABBITBRUSH			NONE

HORIZON DESIGNATION (a)	DEPTH (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	TEXTURE (d)	%	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB pH (i)	BOUNDARY (j)
A	0-5	10YR 3/2	10YR 5/3	/	CBSL	16	2M-F GR	SD	VFR	SO PO	/	GR-10 CB-10 ST-0	2VF 1F 1M	3VF-M	NE	6.8	CS
AB	5-13	10YR 4/3	10YR 6/3	/	SI BLOAM	17	2F SBK	SH	FI	SS PO	/	GR-15 CB-5 ST-15	1VF 1F 1M	2VF-M 1F-M	NE	6.4	CS
Bw	13-33	10YR 5/4	10YR 6/2	/	GRV SL	14	SG	LO	LO	SO PO	/	GR-15 CB-10 ST-10	1VF 1F	2VF-M	NE	6.6	CW
Bt	33-55	7.5YR 5/4	7.5YR 6/4	/	GRV LOAM	21	2F-M SBK	SH	FR	SO PO	/	GR-25 CB-10 ST-5	1VF 1F	2F-M	NE	6.8	GW
C2	55-80	7.5YR 5/4	7.5YR 6/4	/	GR ELOAM	26	3M-F SBK	HA	FI	SS PS	/	GR-10 CB-5 ST-0	/	1F-VF TN	NE	7.1	
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40"	22	37%	>80"

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	ARGILLIC ?	10-40"

Previous edition obsolete. FS 2500-1 (2/86)

USDA - Forest Service

SOIL DESCRIPTION

(Reference FSH 2509.18)

INCLUSION

12-SP-07

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
DA2A	GO-LOAMY TYPIC HAPLUSTOLL	9-6-07	BC		07-12		

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY MINE			UT	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SANDSTONE		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock a. GR	b. CB	c. ST	d. BY
SIDESLOPE	23	CONVEX	30'	290	WD	5	3	2	

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
ROBBITBRUSH			NONE

HORIZON DESIGNATION (a)	INCH DEPTH (b)	COLOR (c) Moist (1)	Dry (2)	Mottling (3)	LAB TEXTURE (d)	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	Moist (2)	Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	Roots (3)	Pores (4)	EFFER. CLASS (h)	LAB ~~FIELD~~ pH (i)	BOUNDARY (j)
A1	0-6	10YR 3/3	10YR 5/3	/	S LOAM 16 21	2M GR	SO	VFR	SS PO	/	GR-3 CB-2 ST-0	3VF 2F	3VF IN	NE	7.1	C,S
A2	6-12	10YR 4/3	10YR 5/2	/	S LOAM 16 23	3M-C SBK	HA	FI	SS PS	/	GR-3 CB-2 ST-0	1VF 1F	1VF IN 2F TU	NE	7.2	G,W
BW1	12-24	10YR 4/3	10YR 5/2	/	S LOAM 15 25	3M-C SBK	HA	FI	SS PS	/	GR-4 CB-2 ST-0	1VF	1VF IN 2F TU	NE	7.2	G,W
BW2	24-36	10YR 4/4	10YR 5/2	/	CBSL 15 24	MASS INE	VH	VFI	SS PS	/	GR-10 CB-15 ST-0	1VF	1F TU	NE	7.4	C,S
C1	36-52	10YR 4/4	10YR 5/2	/	S LOAM 14 26	MASS INE	EH	VFI	SO PO	/	GR-3 CB-2 ST-0	/	1VF-F TU	NE	7.4	C,S
C2	52-75	10YR 5/4	10YR 6/3	/	S LOAM 15 23	MASS INE	EH	VFI	SO PS	/	GR-2 CB-2 ST-0	/	1VF-F TU		7.8	
											GR- CB- ST-					
											GR- CB- ST-					
											GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:
	10-40'	14	<10%	200"

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:
	MOLLIC	CAMBIC	10-40"

Previous edition obsolete.

FS-2500 (12/86)

LANDFILL PIT - 13 PT

USDA - Forest Service

10 MDS-3

SOIL DESCRIPTION

(Reference FSH 2509.18)

13-SP-OT

1. Map Unit Symbol	2. Family or Series	3. Date	4. By	5. Photo. No.	6. Stop No.	7. USGS Quad	8. Location: Sec. ___ T. ___ R. ___
DA	DISTURBED	9-7-07	BC				

9. Area	10. Forest	11. Ranger District	12. State	13. County
KINNEY #2			UTAH	CARBON

14. Parent Material	15. Bedrock Name	16. Elevation	17. Erosion: a. Kind	b. Class
COLLUVIUM	SS		NONE	

18. Landform	19. Slope: a. %	b. Shape	c. Length	d. Aspect	20. Drainage Class	21. Surface Stone and Rock: a. GR	b. CB	c. ST	d. BY
FANSCAPE	12				WD	2	3	3	

22. Potential Natural Vegetation	23. Annual Precipitation	24. Measured Soil Temperature	25. Water Table (Depth)
CWA - SAGEBRUSH			

HORIZON DESIGNATION (a)	DEPTH (b) (INCHES)	COLOR (c) Moist (1)	COLOR (c) Dry (2)	COLOR (c) Mottling (3)	TEXTURE (d)	% C	STRUCTURE (e)	CONSISTENCE (f) Dry (1)	CONSISTENCE (f) Moist (2)	CONSISTENCE (f) Wet (3)	SPECIAL FEATURES (g) Cutans (1)	% of Rock Fragments (2)	SPECIAL FEATURES (g) Roots (3)	SPECIAL FEATURES (g) Pores (4)	EFFER. CLASS (h)	LAB FIELD pH (i)	BOUNDARY (j)
D	0-8	10YR 4/3	10YR 5/4	/	SL	16 / 14	2M-F GR	SO	FR	SO PO	/	GR-0 CB-0 ST-0	3VF 1F	3VFIN	NE	7.0	C,S
COAL	8-25	COAL REFUSE			SAND	6	SG	LO	LO	SO PO	/	GR-0 CB-0 ST-0	1VF	2FIN	NE	6.2	C,S
B1	25-42	10YR 4/3	10YR 5/3	/	SWGL LOAM	18 / 21	2C SBK	HA	FI	SO PO	/	GR-0 CB-0 ST-0	1VF		NE	6.8	C,W
BC1	42-70	7.5YR 5/4	7.5YR 6/4	/	GRX 4-SL	13 / 6	2F-M SBK	LO	LO	SO PO	/	GR-60 CB-5 ST-0			NE	6.6	
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					
												GR- CB- ST-					

26. Partical Size Control Section	a. Depth:	b. Average Clay %:	c. Average Rock Fragment Content:	27. Depth to Lithic or Paralithic Contact:

28. Diagnostic Horizons	a. Surface:	b. Subsurface:	29. Moist Control Section Depth:

Previous edition obsolete.

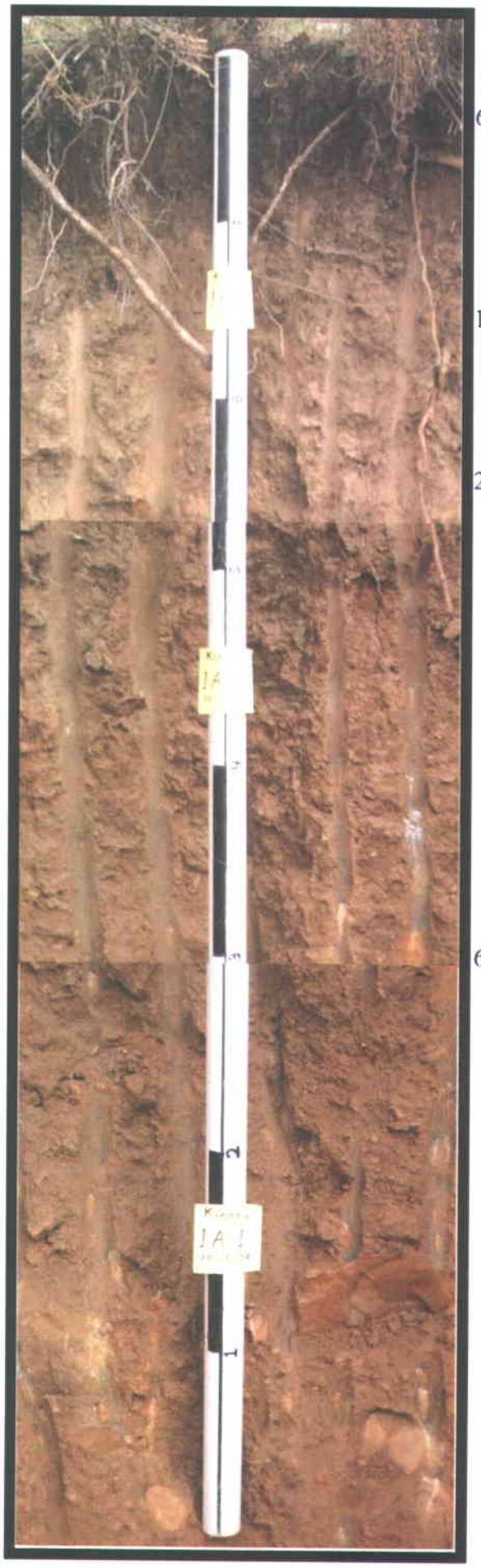
FS 2500-1 (2/86)

APPENDIX 4: Soil Pit Profile Photos

APPENDIX 4: Soil Pit Profile Photos

Appendix 4. Soil Profile Photographs For 36 Laboratory Tested Sample Sites

KINNEY 06, Soil Pit 1A-1



6" 2VF 2+1M

17" 2M2C 1VF

28" NF1FLY

60" 1VF

KINNEY 06, Soil Pit 1A-2

15-20

25-40

40-60

60-75

75-90

KINNEY 06, Soil Pit 1B-1

0-7 3VF

7-15 2FM1C

15-28 1VR1F

28-60 1F1M

60+ 1VF

KINNEY 06, Soil Pit 2A-1

0-10 A

10-24 AB

24-44 B+

44-65 B+/C

65-80+ C

KINNEY 06, Soil Pit 2A-2

0-5 A1

5-14 A2

14-25 BN

25-38 B/C

38-60+ C2

KINNEY 06, Soil Pit 2A-3

0-9 A

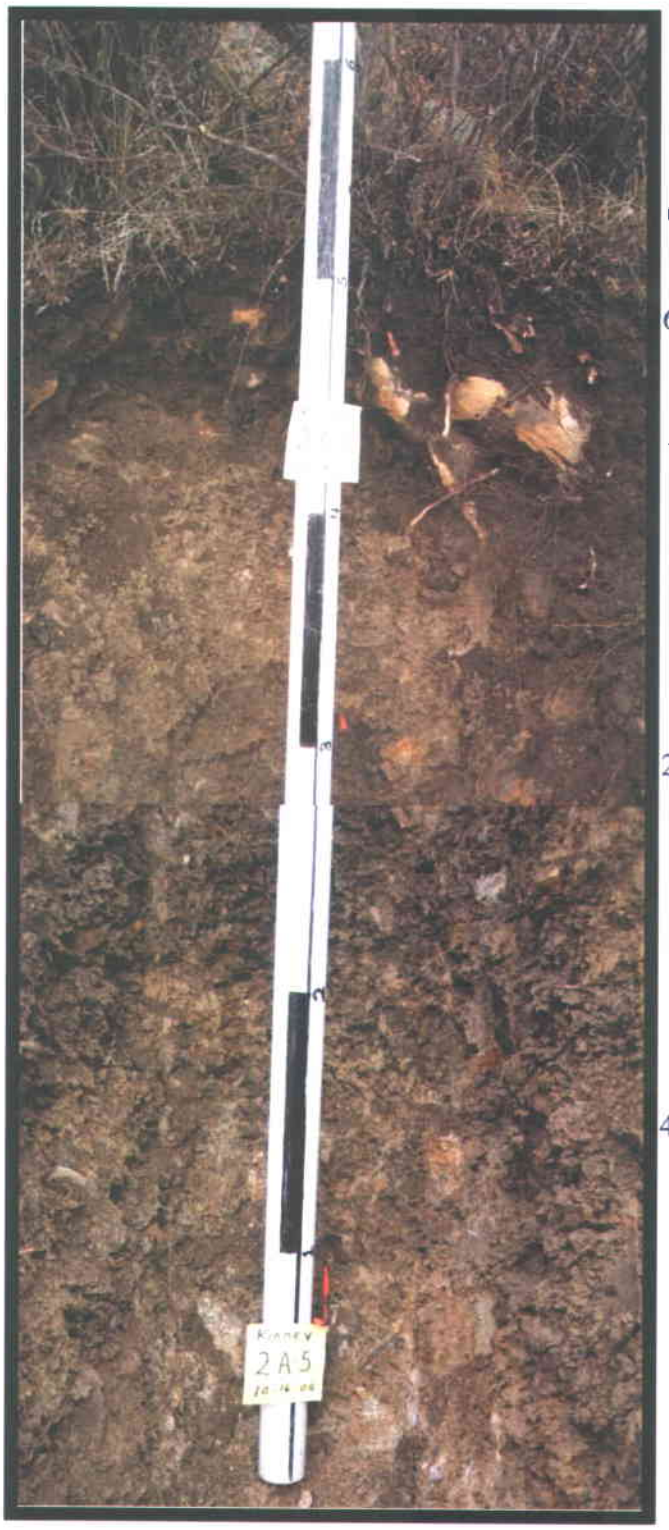
9-19 B+

19-36 B+2

36-52 C1

52-75 C2

KINNEY 06, Soil Pit 2A-5



0-6 A

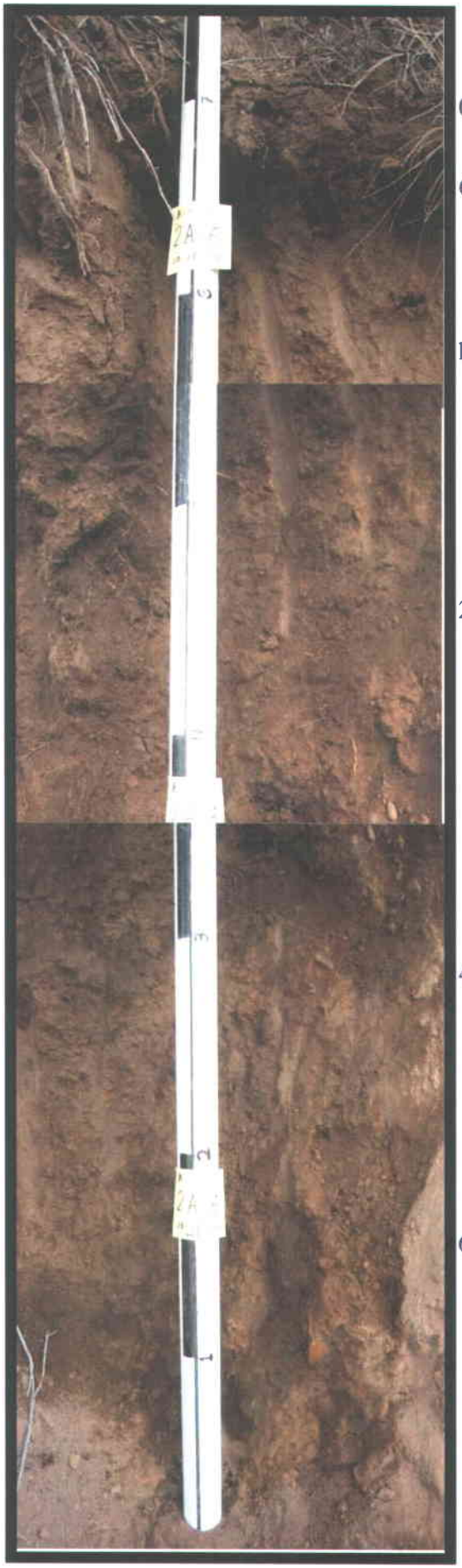
6-12 D

12-24 B+

24-48 B+

48-65+ BC

KINNEY 06, Soil Pit 2A-6



0-6 A1

6-12 A2

12-21 BW1

21-40 BW2

40-66 C

66-85+ C

KINNEY 06, Soil Pit 2A-7

0-7 A

7-20 B+

20-38 C

KINNEY 06, Soil Pit 2B-1

0-9 A

9-19 B+

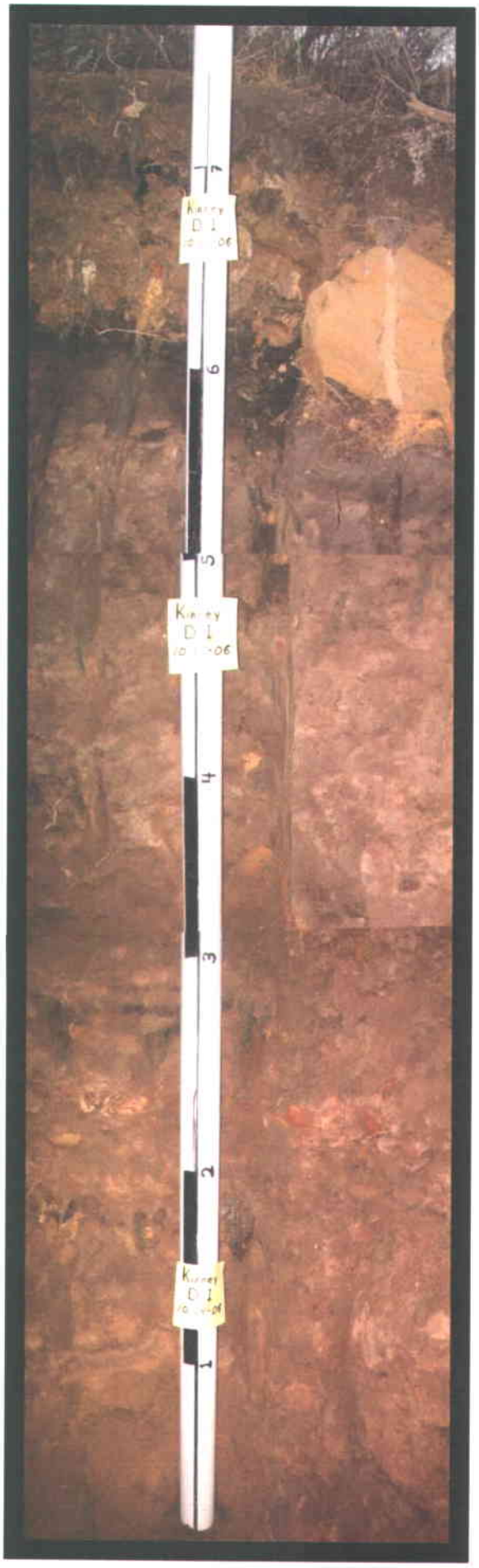
19-33 B+

33-51 BC

51-80 Cr

80+ R

KINNEY 06, Soil Pit D-1



0-6 BUR

6-16 BUR

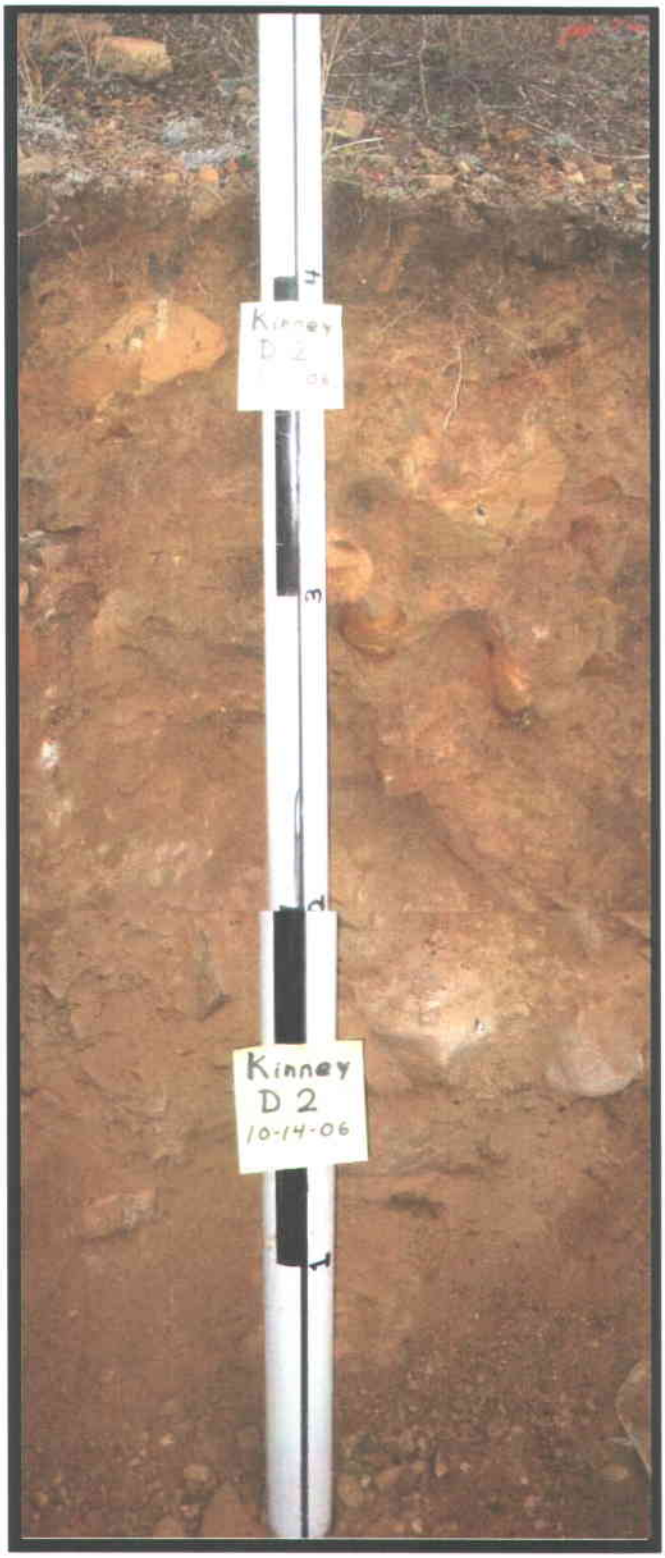
16-25 A/B

25-40 C1

40-65 C2

65-95+ C3

KINNEY 06, Soil Pit D-2



0-6 BUR

6-24 BUR

24-45+ C

KINNEY 06, Soil Pit D-3

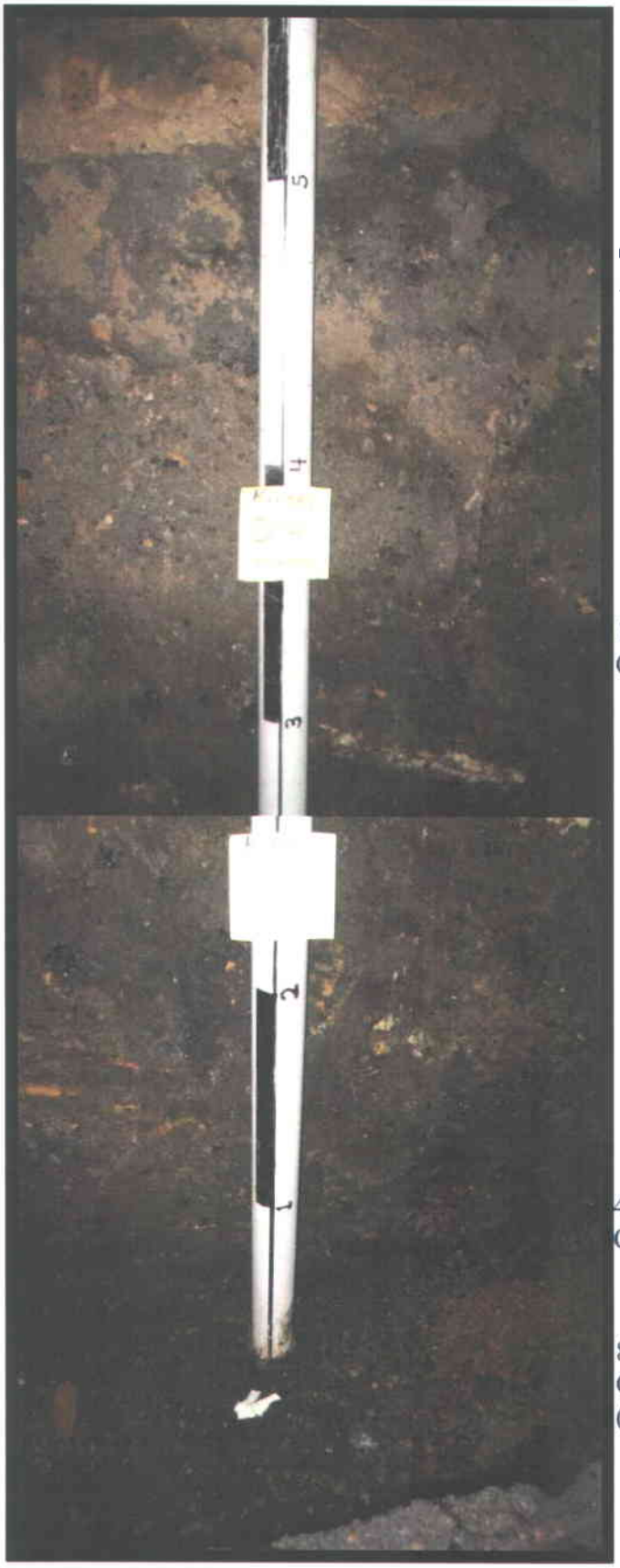
0-10 A out

10-20
B+ Dist

40-60 C1

60-75+ C2

KINNEY 06, Soil Pit D-4



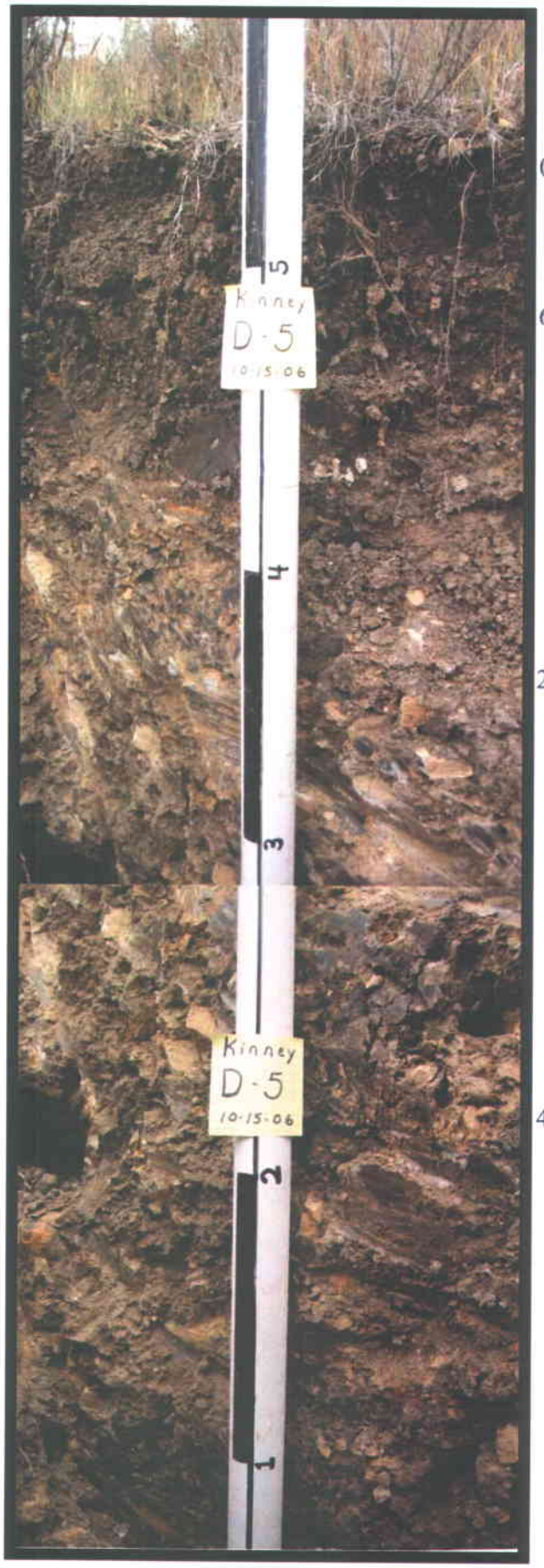
0-8 Disturbed
8-16 Subsoil

12-47
Coal waste

47-85
Coal waste

85-144
Coal waste
(moist)

KINNEY 06, Soil Pit D-5



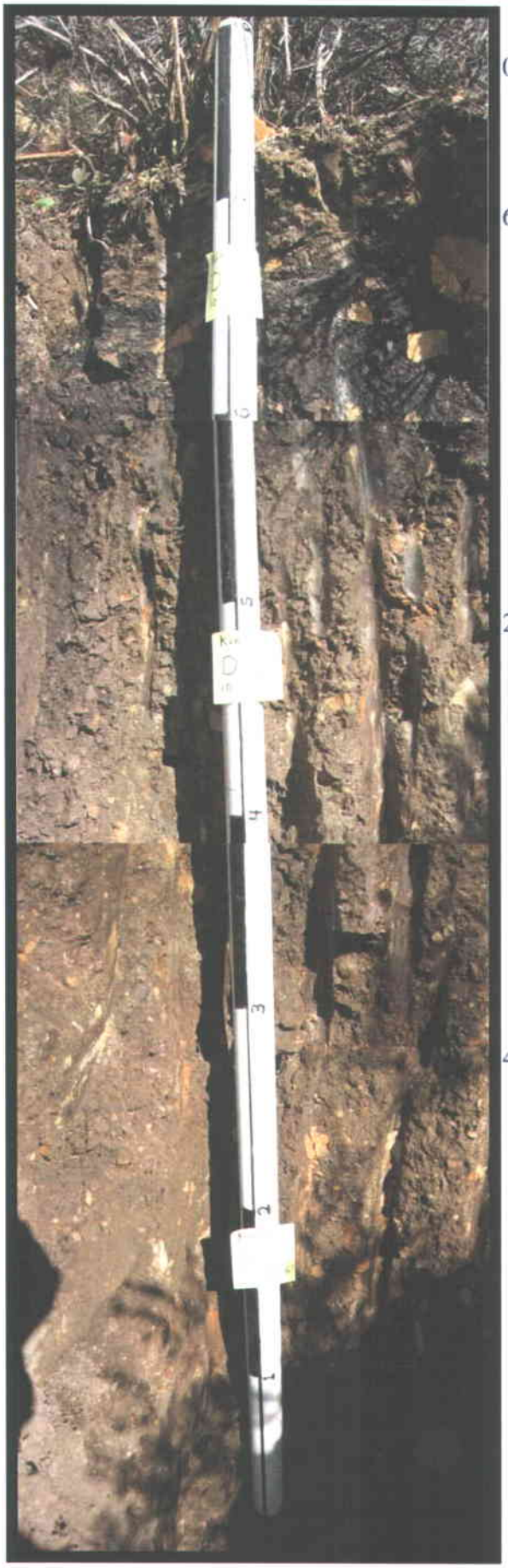
0-6 D1

6-20 D2

20-40 D3

40-68+ D4

KINNEY 06, Soil Pit D-6

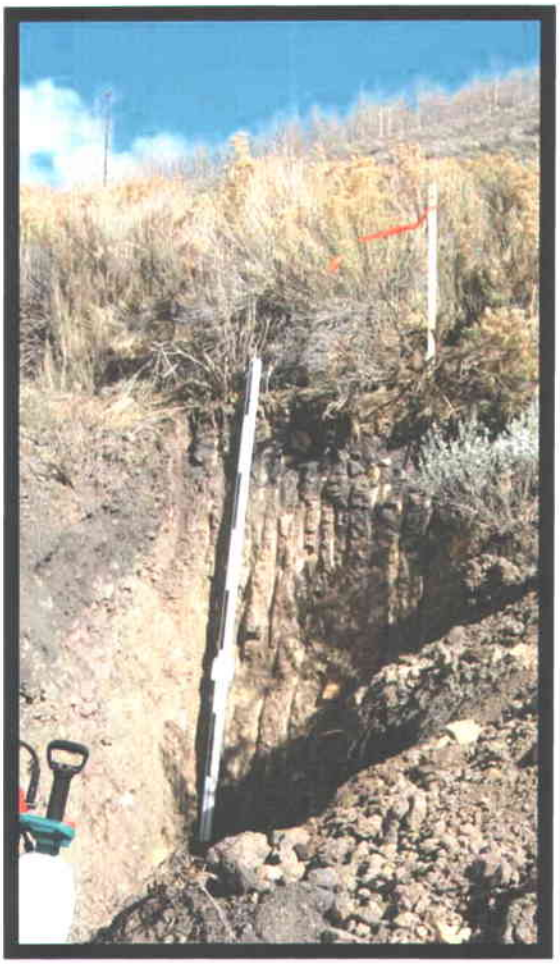


0-6 A

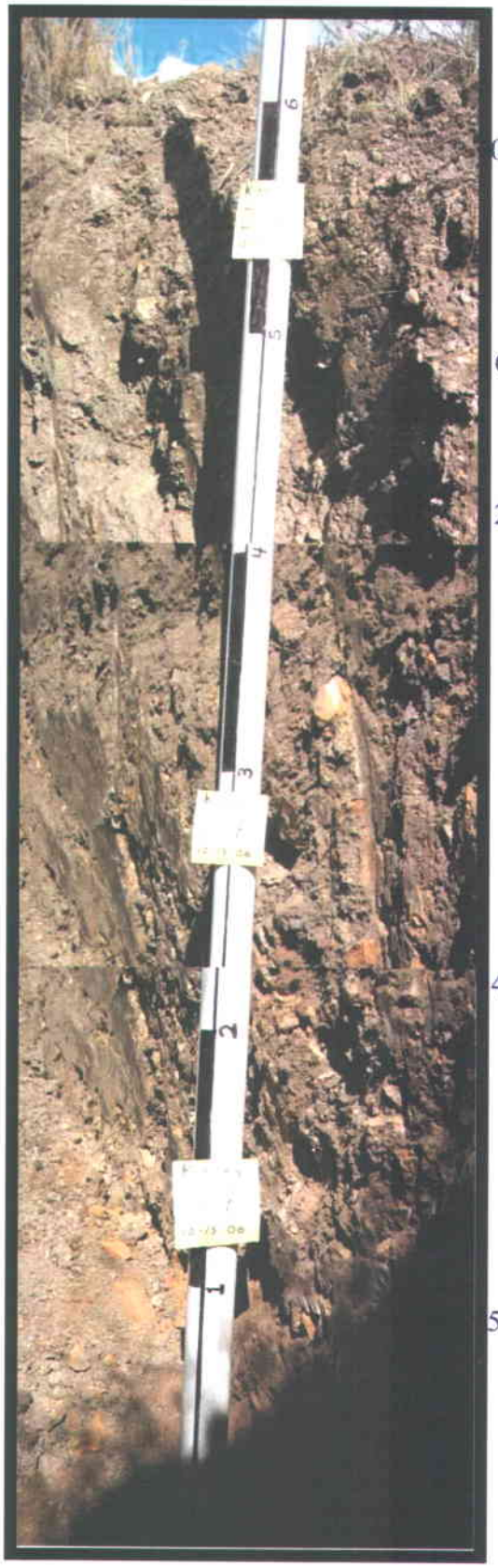
6-24 2C clumped coal

24-48 2C 2

48-72 2C 3



KINNEY 06, Soil Pit D-7



0-6 D1

6-20 D2

20-42 D3

42-58 D4

58-75+ B6

KINNEY 06, Soil Pit D-8

0-6 A

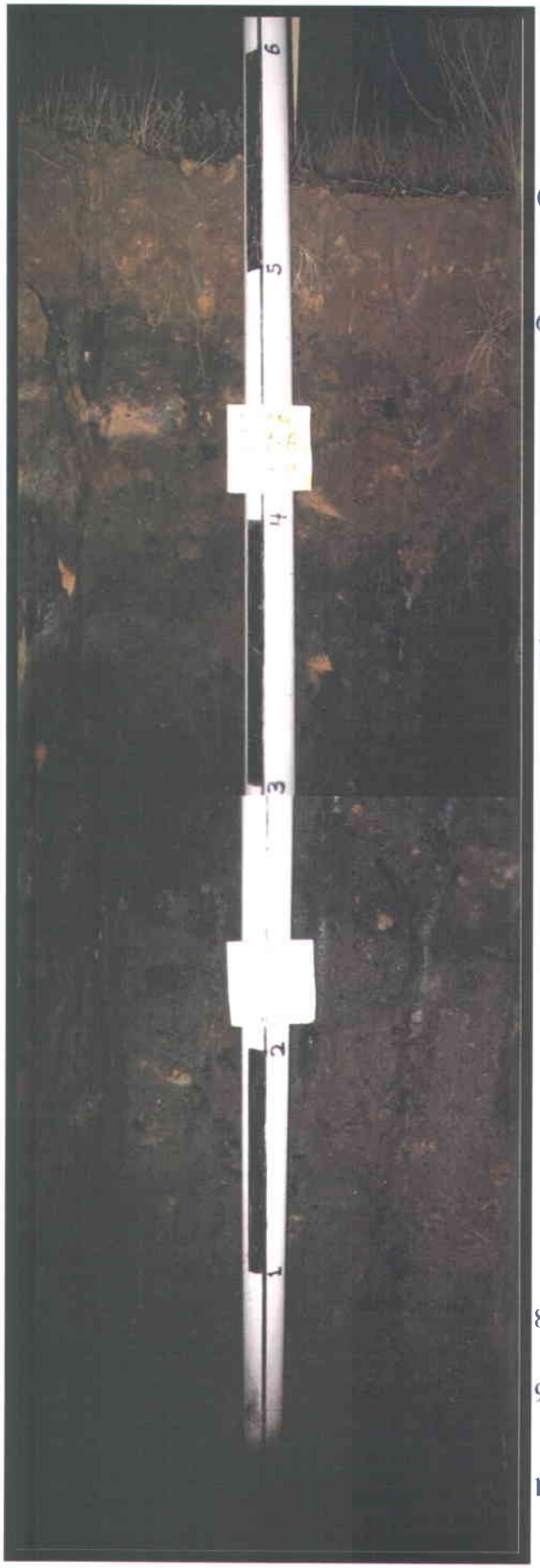
6-13 BA

13-26 B+

26-48 B+2

48-78+ C

KINNEY 06, Soil Pit D9-A



0-6 Disturbed

6-15 Dist. 2

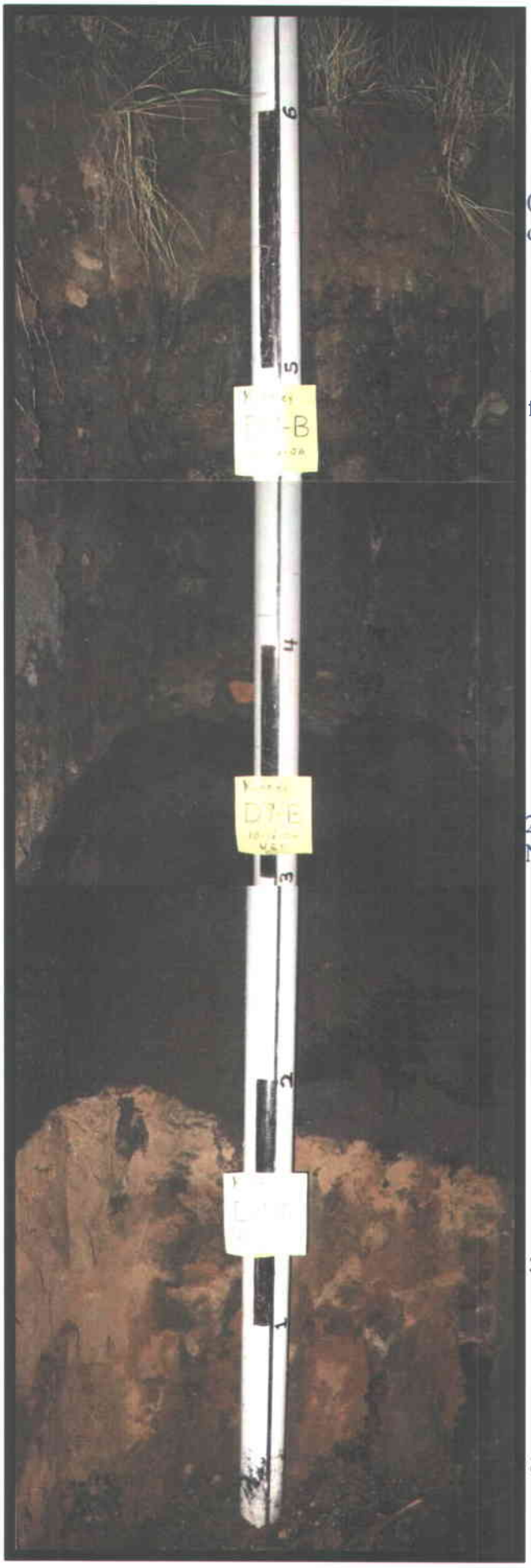
15-80 Coal

80-95 Ab

95-115+ B+b

115-140 B+Cb

KINNEY 06, Soil Pit D9-B



0-11 Mixed Subsoil
over waste material

11-29 Coal 50- 70%
fines w/ Subsoil

29-52 Coal 95%
NA w/ Subsoil

52-80 Bb

80-95 Bb

KINNEY 06, Soil Pit D-10

0-5 A

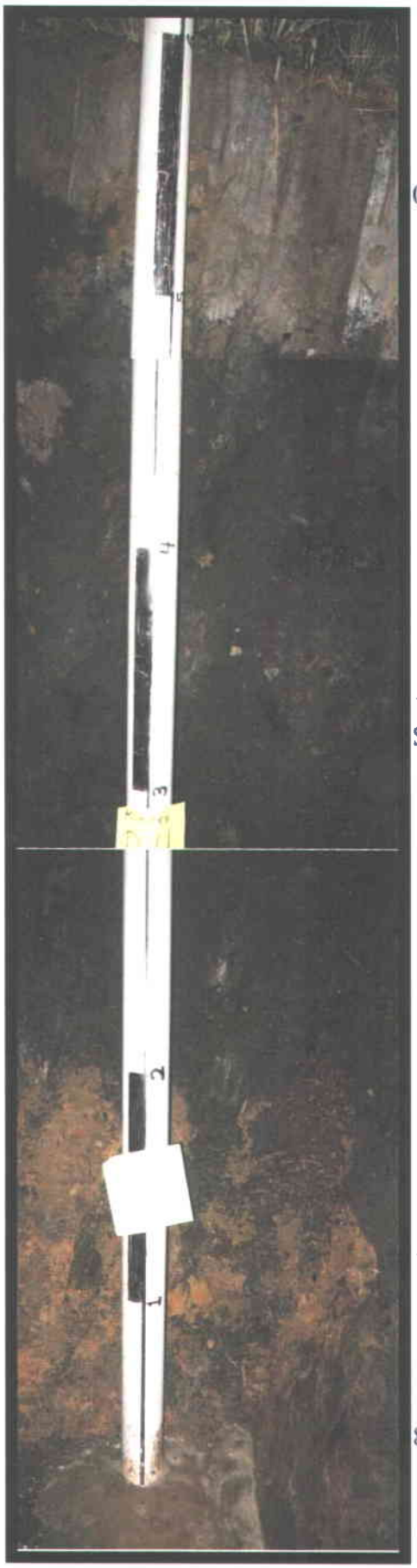
5-11 B+1

11-23 B+2

23-45 B+3

45-65 C

KINNEY 06, Soil Pit D-11



0-12 Subsoil reclaimed

12-62 w/ some
Subsoil mixed

62-80 C
Native soil

80-90+

KINNEY 06, Soil Pit D-12

0-6

9-19 B+

19-33 B+

33-51 BC

51-80 Cr

80+ R

2-07
Kinney Soil Pit

Hand Auger Hole. See Pedon discription for horizons.

3-07
Kinney Soil Pit

Auger Hole in bottom of visable pit. See Pedon discription for horizons.

4-07
Kinney Soil Pit

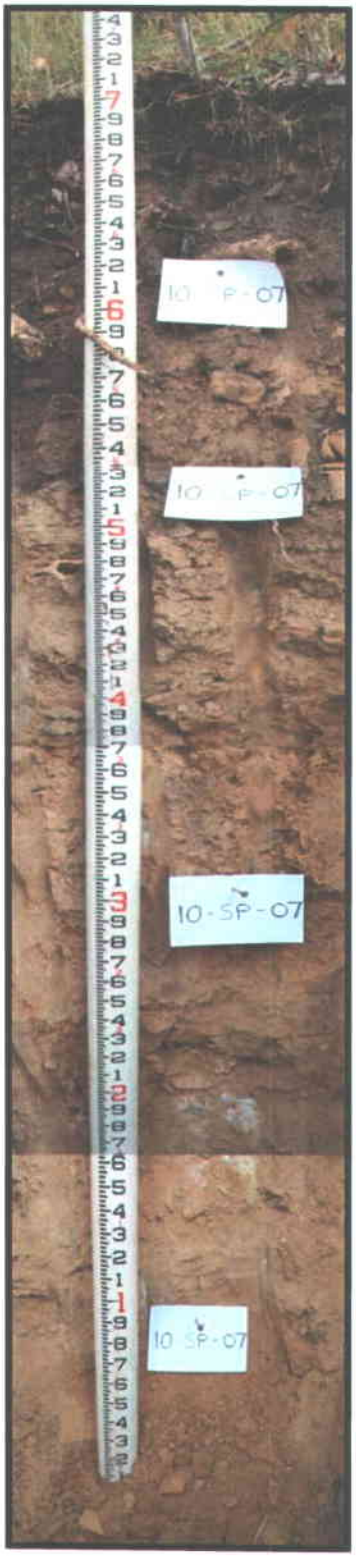
5-07
Kinney Soil Pit

6-07
Kinney Soil Pit

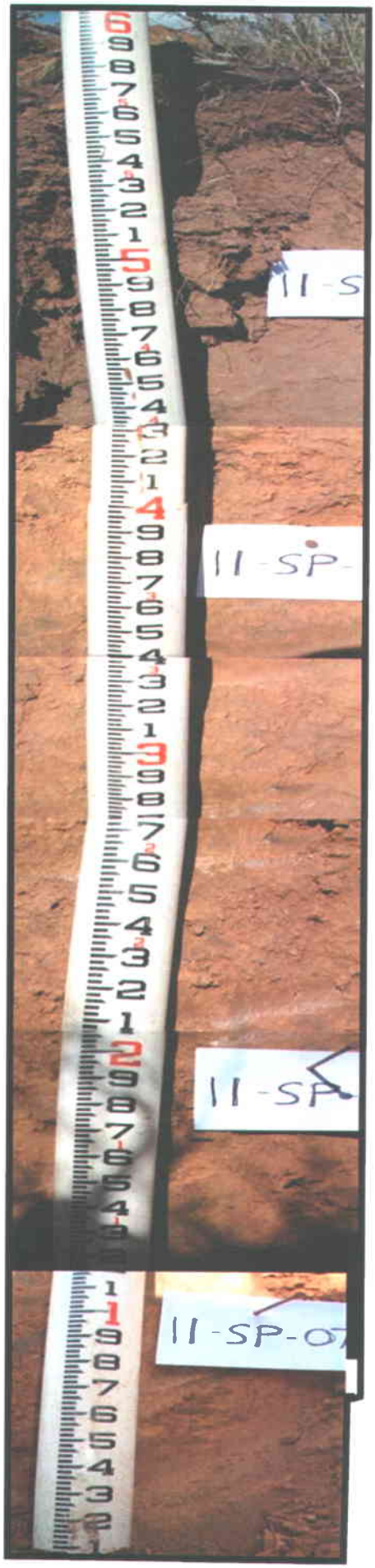
7-07
Kinney Soil Pit

8-07
Kinney Soil Pit

9-07
Kinney Soil Pit



10-07
Kinney Soil Pit



11-07
Kinney Soil Pit

12-07
Kinney Soil Pit

13-07
Kinney Soil Pit
Also (10-MDS-3)

0-8 inches Overburden mix with est. 15% coal chunks

8-15 inches coal layer with some overburden

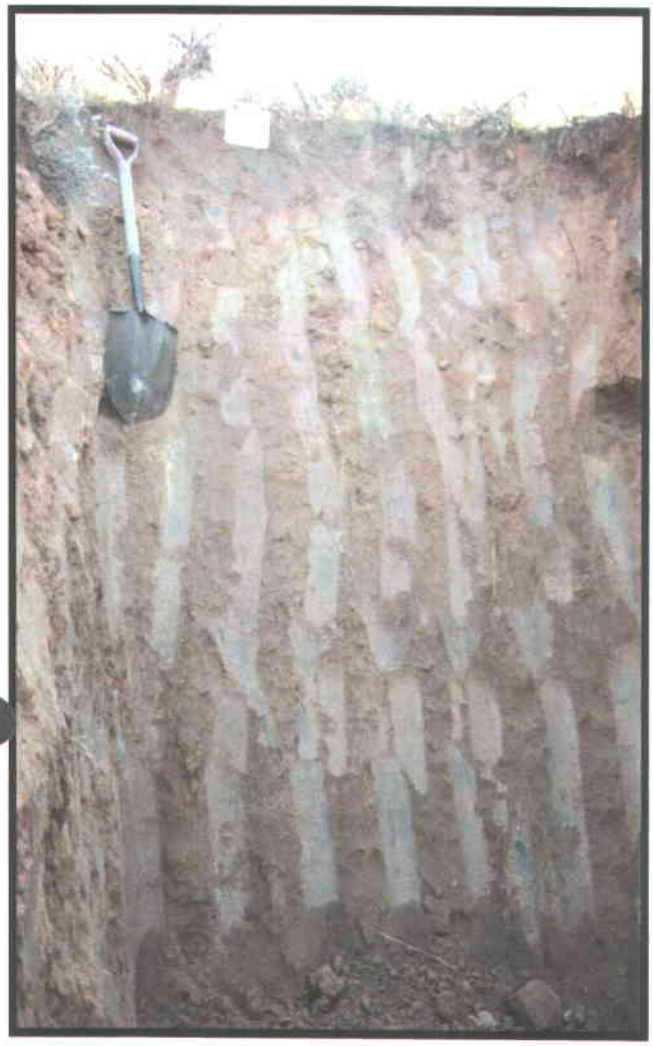
25-40 inches Buried B horizon

40-60 inches Buried B and C horizons

No potential topsoil at this site (map Unit DA)

Trackhoe trench site 10-MDS-3, Map unit DA

14-07
Kinney Soil Pit



C 30-60 inches sandier, lacks structure and chem. for topsoil material

Bw2 18-30 inches subsoil, same as Bw somewhat coarser

Bw 8-18 inches subsoil, good material

A 0-8 inches, potentially decent topsoil, pending lab results

14-SP-07 (Trackhoe trench 12-MDF-1) located approx. 50 ft. from canal on lowerfanslope, Map unit 2A.

15-CP-07
Trackhoe Pit

15-CP-07, measured on 9/7 had 4'11 inches of coal at "pinch out" beginning at 19 inch depth, followed by buried B or C soil horizons. Not sampled. Staked by lathe photographed by BC. Will send this one. Located in trackhoe parking area.

15-07
Kinney Soil Pit

11 inches potential topsoil, pending lab result

C 26-40 inches very boulder subsoil

Bw 11-26 inches very stony subsoil

A2 5-11 inches topsoil, granular structure

A1 0-5 inches dark-colored topsoil

Oe I inch duff and organic matter layer

15-SP-07 Located near Kinney #1 mine portal Trackhoe scrapped in aspen grove roadcut on 9/7/07, not sapled Map Unit 1A

16-07
Kinney Soil Pit

No topsoil available at this site

13-60 inches Buried B horizon very stony

13-34 inches coal refuse

0-13 inches Overburden and 20% coal chunks in reclaimed materials (AMP cover

16-SP-07 (trackhoe site 13 WSF-2) located in DA map unit north end Hansen property, nearby 2006 soil pit.

18-07
Kinney Soil Pit

14 inches of potetial topsoil at this site Map unit 1A

C 36-60 inches

B 14-36 inches

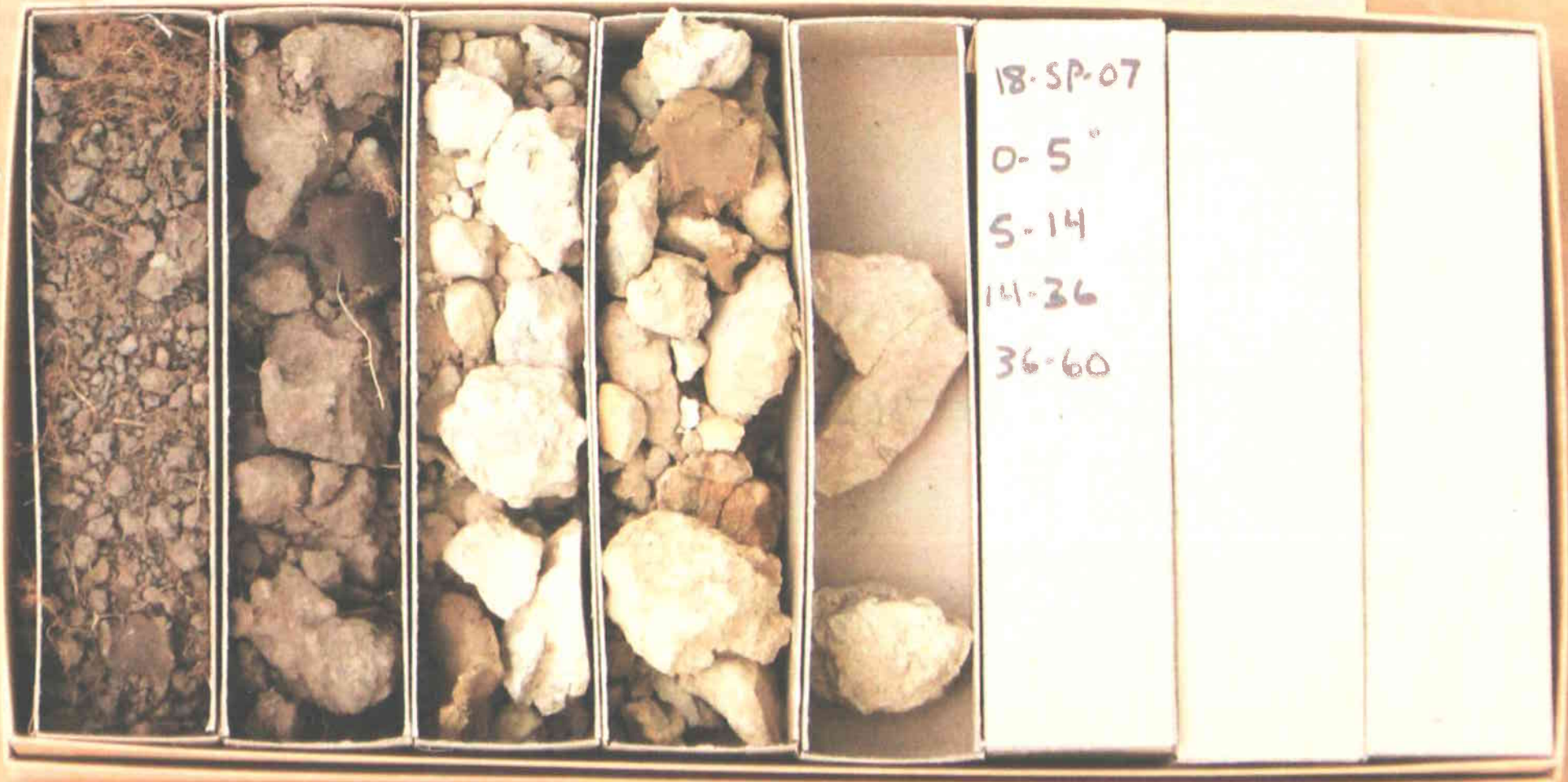
A2 5-14 inches

A1 0-5 inches

18-SP-07 (trackhoe scrapped nearby Grimes Corner survey flagging, roadcut near Kinney 1 aspen grove). Sampled 9/7/07.

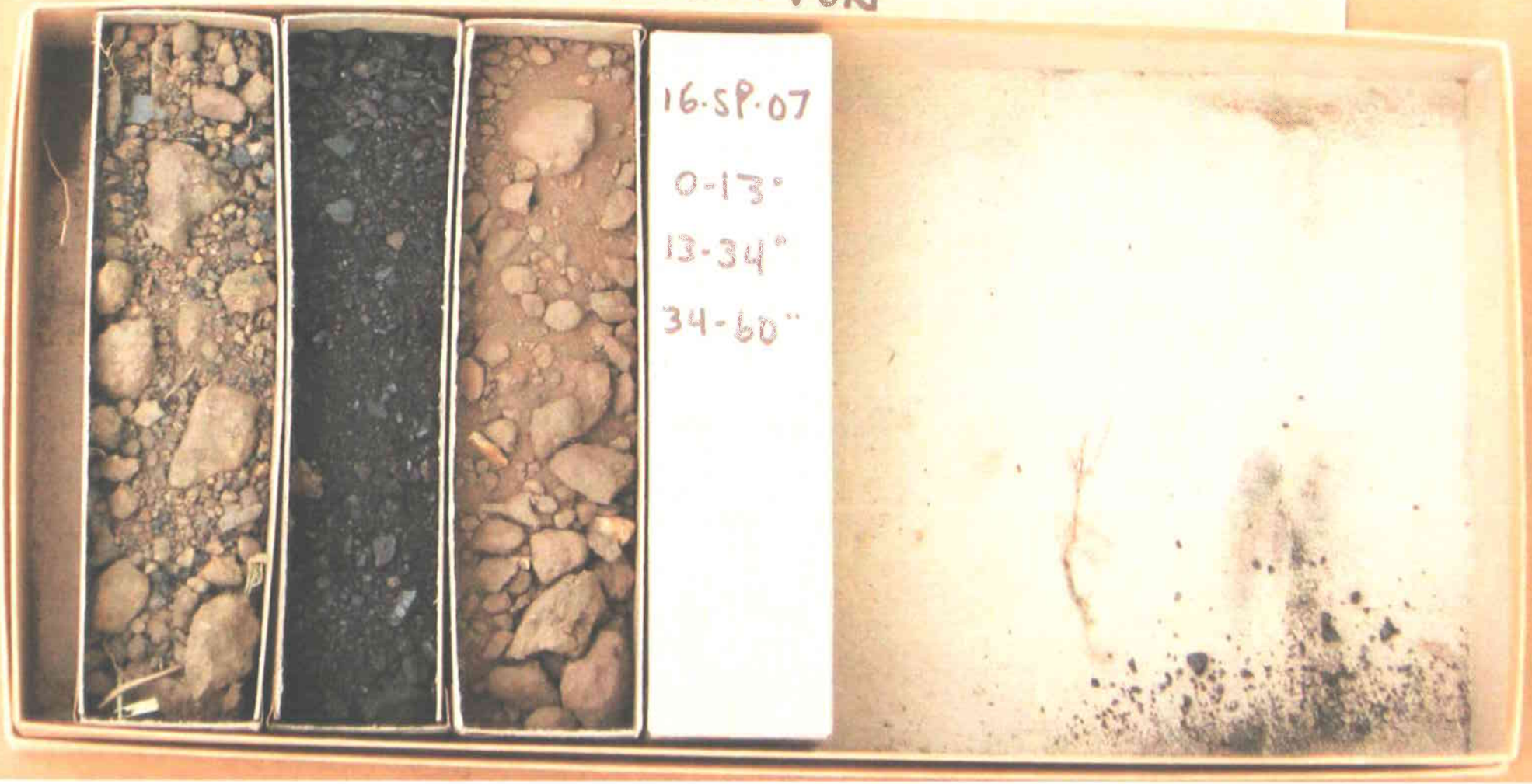
Appendix 5. Photographs of Soil Micromonolith Box Samples

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION



KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION



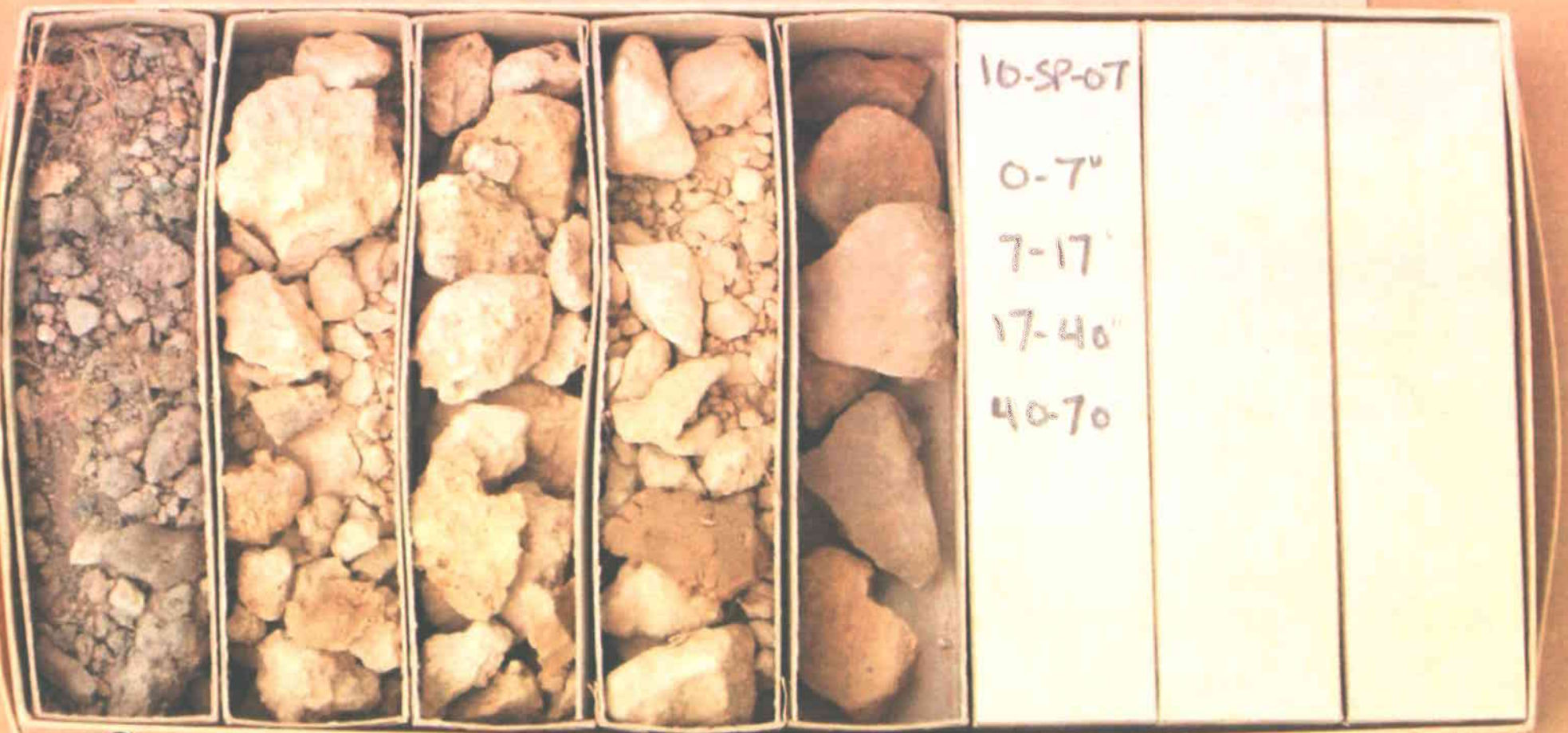
KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

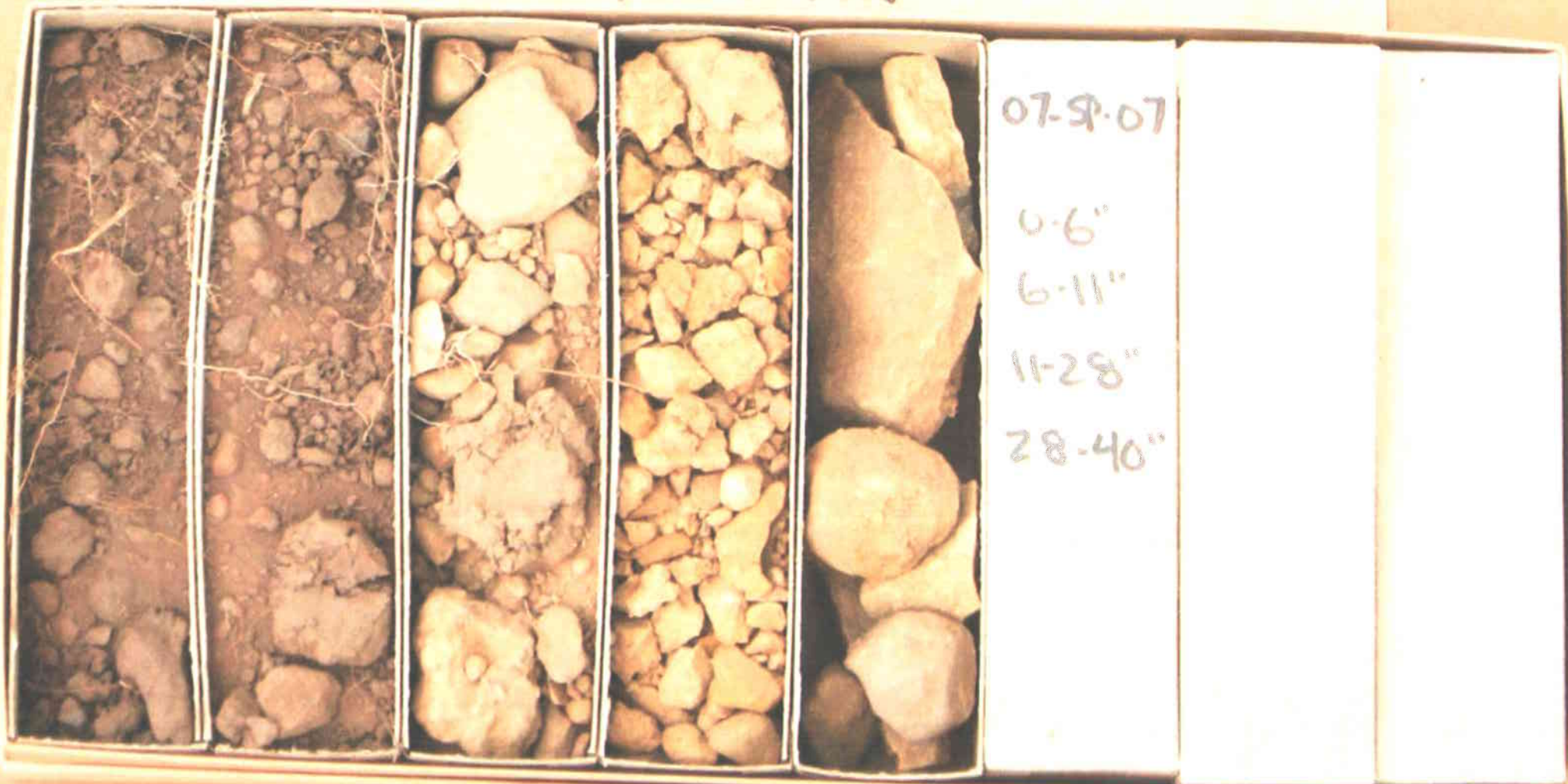


KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

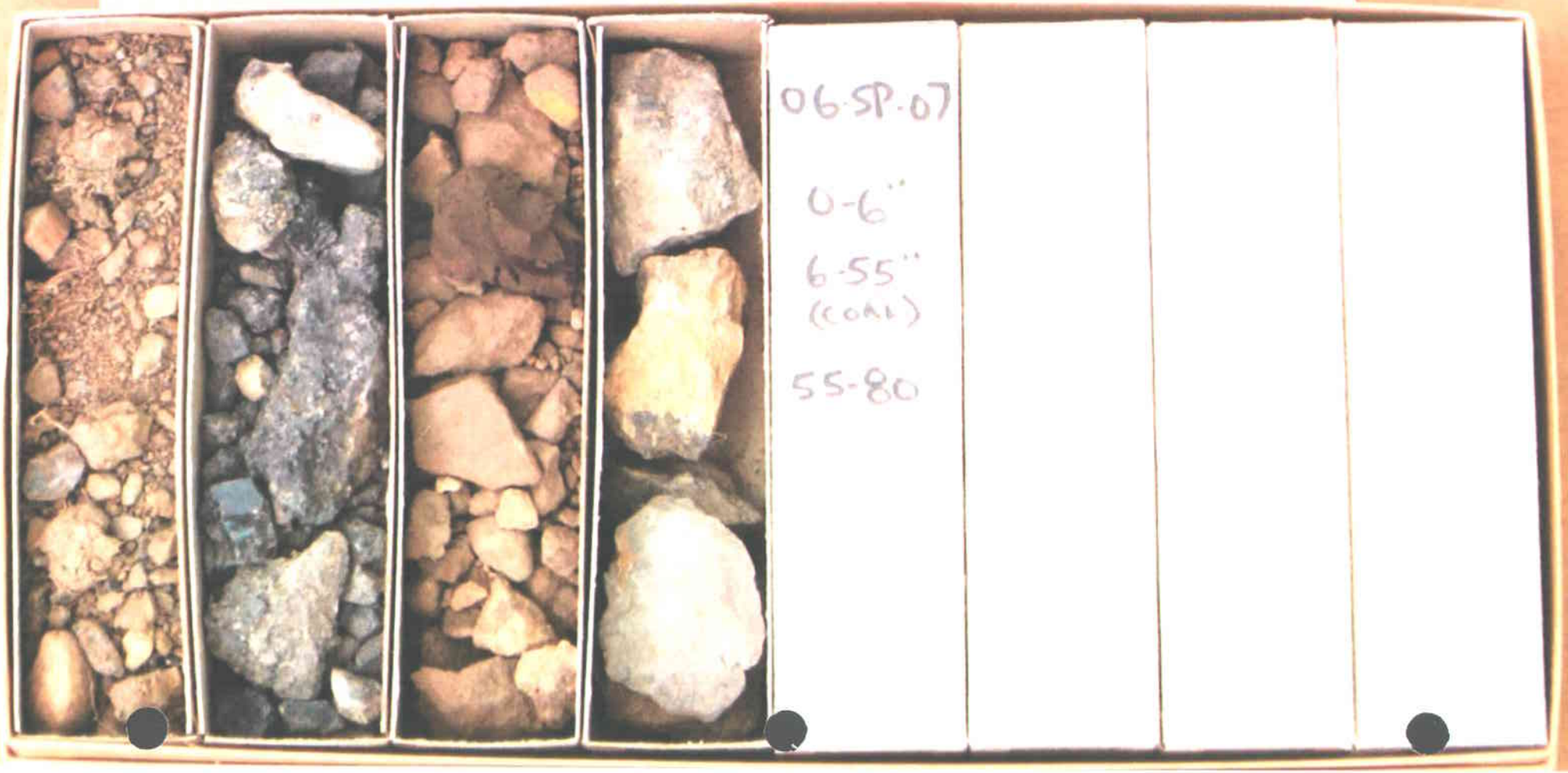
KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

08.SP.07
0-9"
9-17"
17-36
36-60

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION



KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

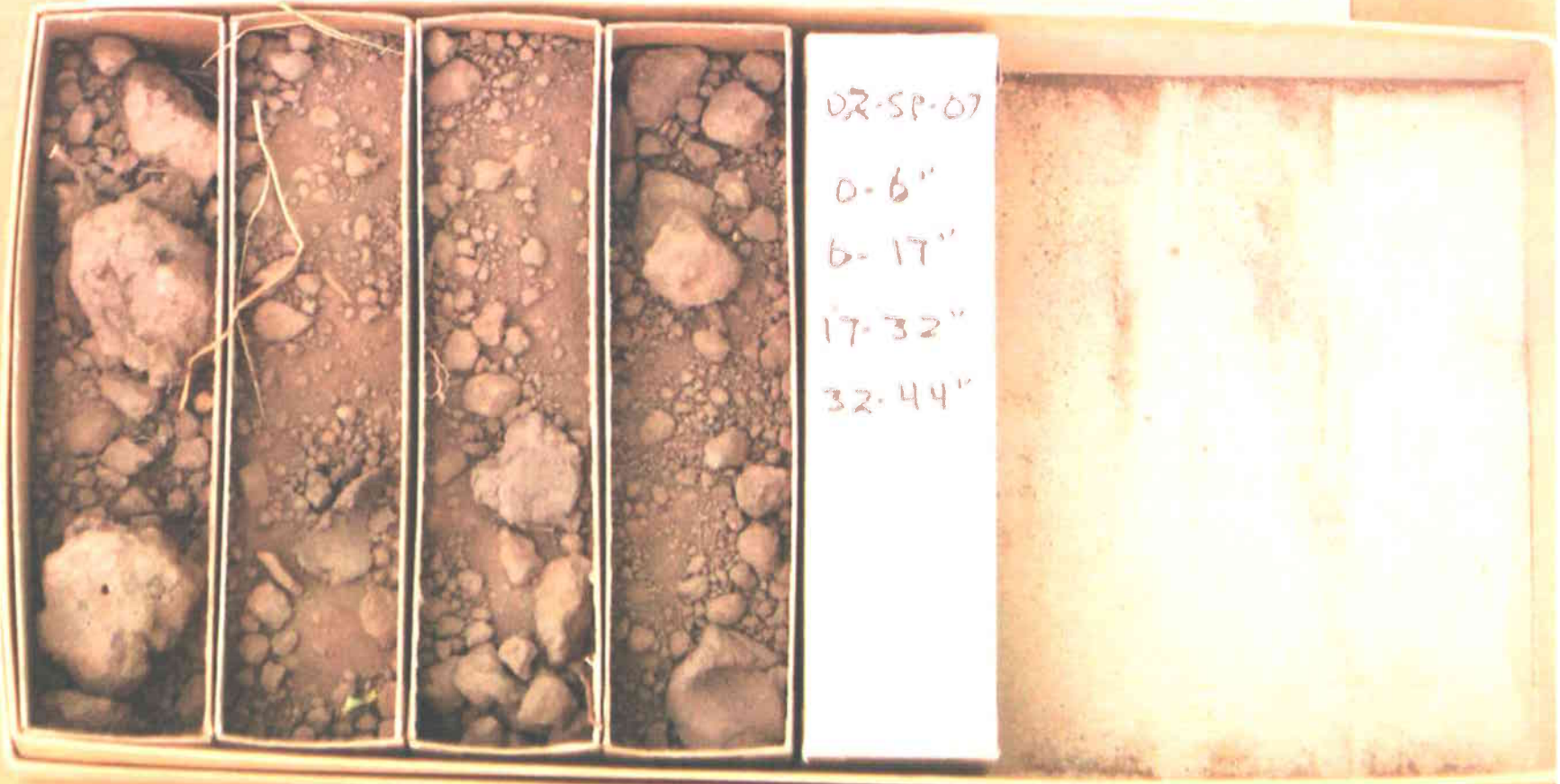


KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

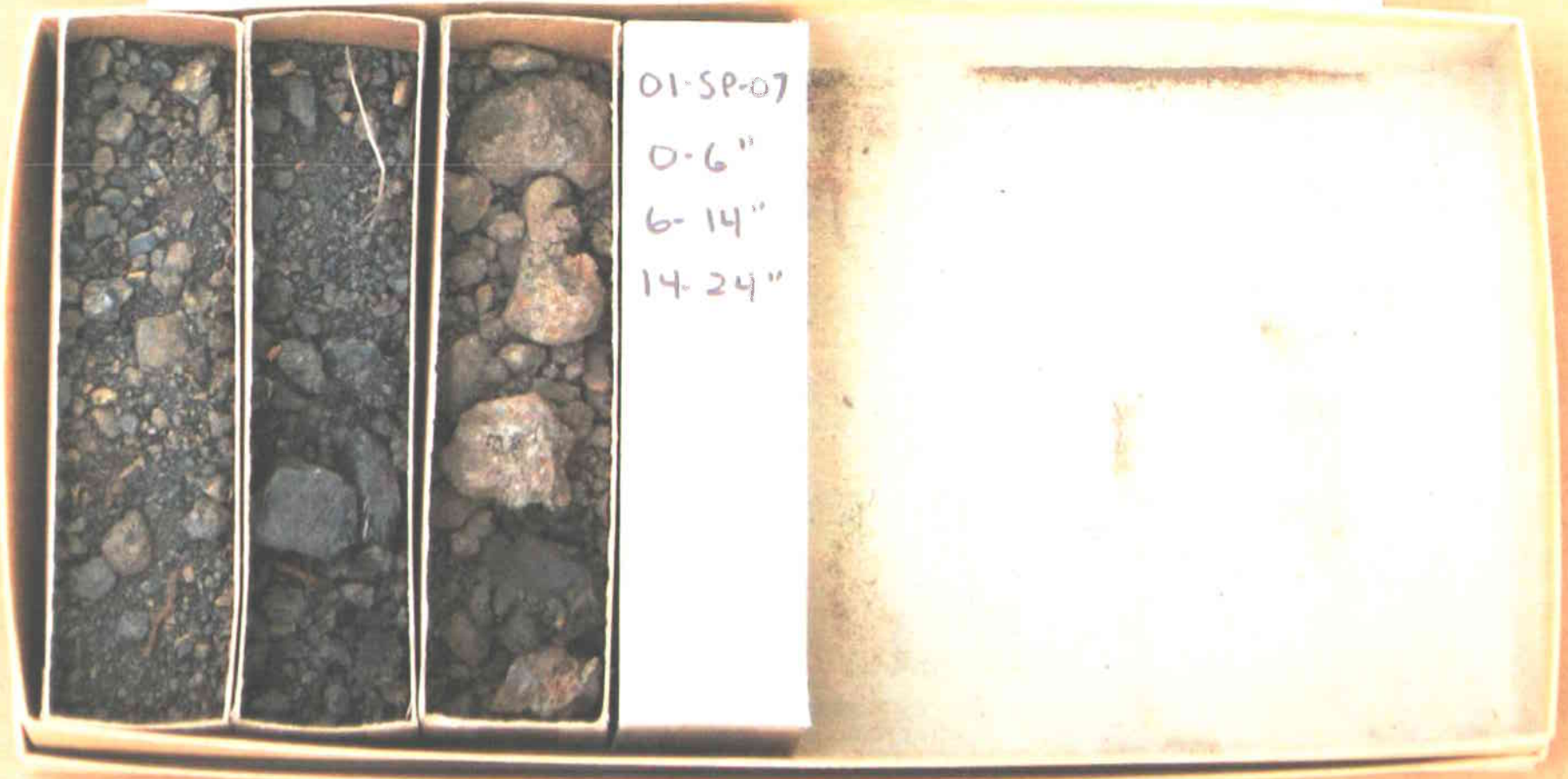
KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION

KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION



KINNEY MINE
SOIL SURVEY
SEPT 2007
HANSEN PROPERTY
ADDITION



United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Carbon Area, Utah, Parts of Carbon and Emery Counties

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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117—Trag-Beje-Senchert complex....14
118—Trag-Croydon complex....16
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Gully

Short Steep Slope

Other

Political Features

Municipalities

Cities

Urban Areas

Water Features

Oceans

Streams and Canals

Transportation

Rails

Roads

Interstate Highways

US Routes

State Highways

Local Roads

Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 12N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Carbon Area, Utah, Parts of Carbon and Emery Counties
Survey Area Data: Version 3, Dec 14, 2006

Date(s) aerial images were photographed: 9/30/1997; 10/5/1997

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Carbon Area, Utah, Parts of Carbon and Emery Counties (UT616)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
29	Dumps,mine	23.0	9.2%
108	Silas loam	70.8	28.2%
109	Silas-Brycan loams	16.2	6.4%
117	Trag-Beje-Senchert complex	6.1	2.4%
118	Trag-Croydon complex	135.2	53.8%
Totals for Area of Interest (AOI)		251.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that

have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas.* Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Carbon Area, Utah, Parts of Carbon and Emery Counties
Version date:12/14/2006 5:20:04 PM

29—Dumps,mine

Map Unit Composition
Dumps: 100 percent

Description of Dumps

Properties and qualities
Slope: 3 to 65 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Available water capacity: Very low (about 0.0 inches)

Interpretive groups
Land capability (nonirrigated): 8s

Typical profile
0 to 60 inches: Fragmental material

108—Silas loam

Map Unit Setting
Elevation: 7,180 to 7,680 feet
Mean annual precipitation: 16 to 20 inches
Mean annual air temperature: 38 to 45 degrees F
Frost-free period: 60 to 80 days

Map Unit Composition
Silas and similar soils: 80 percent
Minor components: 5 percent

Description of Silas

Setting
Landform: Valleys
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: High (about 9.6 inches)

Interpretive groups

Land capability (nonirrigated): 6w
Ecological site: Wet Fresh Meadow (Willow-Sedge) (R048AY008UT)

Typical profile

0 to 2 inches: Loam
2 to 17 inches: Loam
17 to 28 inches: Loam
28 to 43 inches: Loam
43 to 60 inches: Sandy clay loam

Minor Components

Silas, poorly drained

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Wet Fresh Meadow (Willow-Sedge) (R048AY008UT)

109—Silas-Brycan loams

Map Unit Setting

Elevation: 7,680 to 8,580 feet
Mean annual precipitation: 16 to 20 inches
Mean annual air temperature: 38 to 45 degrees F
Frost-free period: 60 to 80 days

Map Unit Composition

Silas and similar soils: 65 percent
Brycan and similar soils: 20 percent
Minor components: 7 percent

Description of Silas

Setting

Landform: Valleys
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone and shale

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: High (about 9.6 inches)

Interpretive groups

Land capability (nonirrigated): 6w

Ecological site: Wet Fresh Meadow (Willow-Sedge) (R048AY008UT)

Typical profile

0 to 2 inches: Loam
2 to 17 inches: Loam
17 to 28 inches: Loam
28 to 43 inches: Loam
43 to 60 inches: Sandy clay loam

Description of Brycan

Setting

Landform: Alluvial fans
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium derived from sandstone and shale

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: High (about 9.9 inches)

Interpretive groups

Land capability (nonirrigated): 6c
Ecological site: MOUNTAIN LOAM (SALINA WILDRYE) (R048AY409UT)

Typical profile

0 to 12 inches: Loam
12 to 32 inches: Loam
32 to 60 inches: Silt loam

Minor Components

Silas, poorly drained

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Wet Fresh Meadow (Willow-Sedge) (R048AY008UT)

Flooded soils

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Concave

117—Trag-Beje-Senchert complex

Map Unit Setting

Elevation: 7,180 to 8,480 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 37 to 45 degrees F
Frost-free period: 50 to 100 days

Map Unit Composition

Trag and similar soils: 45 percent
Senchert and similar soils: 15 percent
Beje and similar soils: 15 percent

Description of Trag

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or colluvium derived from sandstone and shale

Properties and qualities

Slope: 3 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water capacity: High (about 10.8 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: MOUNTAIN LOAM (SALINA WILDRYE) (R048AY409UT)

Typical profile

0 to 5 inches: Clay loam
5 to 39 inches: Clay loam
39 to 60 inches: Clay loam

Description of Beje

Setting

Landform: Drainageways
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Slope alluvium and/or colluvium over residuum weathered from sandstone and shale

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Very low (about 2.4 inches)

Interpretive groups

Land capability (nonirrigated): 6s
Ecological site: Mountain Shallow Loam (Mountain Big Sagebrush) (R047XA446UT)

Typical profile

0 to 6 inches: Loam
6 to 14 inches: Clay loam
14 to 18 inches: Unweathered bedrock

Description of Senchert

Setting

Landform: Drainageways, draws
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Colluvium and/or slope alluvium over residuum weathered from sandstone and shale

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Sodium adsorption ratio, maximum: 5.0
Available water capacity: Moderate (about 6.2 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: High Mountain Loam (Aspen) (R047XA508UT)

Typical profile

0 to 4 inches: Loam
4 to 16 inches: Loam
16 to 35 inches: Clay loam
35 to 39 inches: Unweathered bedrock

118—Trag-Croydon complex

Map Unit Setting

Elevation: 7,580 to 9,470 feet
Mean annual precipitation: 16 to 25 inches
Mean annual air temperature: 34 to 40 degrees F
Frost-free period: 40 to 80 days

Map Unit Composition

Trag and similar soils: 50 percent
Croydon and similar soils: 30 percent

Description of Trag

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or colluvium derived from sandstone and shale

Properties and qualities

Slope: 30 to 60 percent
Surface area covered with cobbles, stones or boulders: 13.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water capacity: High (about 10.2 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: MOUNTAIN LOAM (SALINA WILDRYE) (R048AY409UT)

Typical profile

0 to 10 inches: Stony loam
10 to 36 inches: Clay loam
36 to 60 inches: Clay loam

Description of Croydon

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium and/or slope alluvium over residuum weathered from sandstone and shale

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: High Mountain Loam (Aspen) (R047XA508UT)

Typical profile

0 to 16 inches: Loam
16 to 23 inches: Loam
23 to 48 inches: Clay loam
48 to 52 inches: Weathered bedrock

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
USA

Client Sample ID:	4-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1690.50		

SGS Minerals Sample ID: 072-28962-001

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.92		
% Ash	[ASTM D 3174/5142]	7.69	8.53	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11266	12507	13674
% Sulfur	[ASTM D 4239]	0.52	0.58	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	6.82	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.46	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.92	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
USA

Client Sample ID:	5-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1976.90		

SGS Minerals Sample ID: 072-28962-002

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.60		
% Ash	[ASTM D 3174/5142]	9.09	10.06	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11071	12247	13616
% Sulfur	[ASTM D 4239]	0.57	0.63	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	8.21	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.51	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.03	lb	ASTM D 5865

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Client Sample ID:	6-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1981.50		

SGS Minerals Sample ID: 072-28962-003

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.86		
% Ash	[ASTM D 3174/5142]	9.13	10.13	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	10803	11985	13336
% Sulfur	[ASTM D 4239]	0.56	0.62	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	8.45	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.52	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.03	lb	ASTM D 5865

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Client Sample ID:	7-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	2054.90		

SGS Minerals Sample ID: 072-28962-004

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.16		
% Ash	[ASTM D 3174/5142]	8.92	9.82	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11124	12245	13579
% Sulfur	[ASTM D 4239]	0.57	0.62	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	8.02	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.51	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.02	lb	ASTM D 5865

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Client Sample ID:	8-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1783.60		

SGS Minerals Sample ID: 072-28962-005

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	12.09		
% Ash	[ASTM D 3174/5142]	8.20	9.33	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	10584	12040	13279
% Sulfur	[ASTM D 4239]	0.51	0.58	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	7.75	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.48	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.96	lb	ASTM D 5865

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August 13, 2010

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Albuquerque, NM 87192
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Client Sample ID:	9-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1660.50		

SGS Minerals Sample ID: 072-28962-006

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.51		
% Ash	[ASTM D 3174/5142]	8.54	9.43	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11071	12234	13509
% Sulfur	[ASTM D 4239]	0.51	0.56	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	7.71	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.46	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.92	lb	ASTM D 5865

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Client Sample ID:	10-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1855.60		

SGS Minerals Sample ID: 072-28962-007

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	8.81		
% Ash	[ASTM D 3174/5142]	8.95	9.81	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11181	12261	13596
% Sulfur	[ASTM D 4239]	0.60	0.66	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	8.00	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.54	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.08	lb	ASTM D 5865

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Client Sample ID:	11-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1961.30		

SGS Minerals Sample ID: 072-28962-008

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	10.61		
% Ash	[ASTM D 3174/5142]	11.42	12.77	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	10486	11730	13448
% Sulfur	[ASTM D 4239]	0.46	0.52	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	10.89	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.44	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.88	lb	ASTM D 5865

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August 13, 2010

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Client Sample ID:	12-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	1967.70		

SGS Minerals Sample ID: 072-28962-009

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.46		
% Ash	[ASTM D 3174/5142]	8.85	9.77	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	10941	12084	13393
% Sulfur	[ASTM D 4239]	0.50	0.55	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	8.09	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.46	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.91	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
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Client Sample ID:	13-CP	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	W 1' 4' ?
Matrix:	Coal	**Sample Type :**	-4 Mesh Moist
Net Sample Weight:	1588.20		

SGS Minerals Sample ID: 072-28962-010

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	10.42		
% Ash	[ASTM D 3174/5142]	8.55	9.55	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	11018	12299	13597
% Sulfur	[ASTM D 4239]	0.52	0.58	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	7.76	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.47	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.94	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
USA

Client Sample ID:	15-CS-1	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-4 Mesh Moist
Matrix:	Coal		
Net Sample Weight:	2415.60		

SGS Minerals Sample ID: 072-28962-011

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	9.22		
% Ash	[ASTM D 3174/5142]	13.17	14.51	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	9986	10999	12866
% Sulfur	[ASTM D 4239]	0.45	0.50	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	13.19	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.45	lb	ASTM D 5865
Pounds of SO2/mm Btu	0.91	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
USA

Client Sample ID:	9-B	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	30 - 52 Clean Coal
Matrix:	Coal	**Sample Type :**	-4 Mesh Moist
Net Sample Weight:	1971.30		

SGS Minerals Sample ID: 072-28962-012

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	8.48		
% Ash	[ASTM D 3174/5142]	11.75	12.84	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	10581	11562	13265
% Sulfur	[ASTM D 4239]	0.66	0.72	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	11.11	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.62	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.24	lb	ASTM D 5865

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Client Sample ID:	D-4	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	19" - 72"
Matrix:	Coal	**Sample Type :**	-2" Moist
Net Sample Weight:	3054.40		

SGS Minerals Sample ID: 072-28962-013

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	12.47		
% Ash	[ASTM D 3174/5142]	41.28	47.16	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	5929	6774	12820
% Sulfur	[ASTM D 4239]	0.44	0.51	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	69.62	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.75	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.49	lb	ASTM D 5865

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Client Sample ID:	DA-9-B	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	14" - 54"
Matrix:	Coal	**Sample Type :**	-2" Moist
Net Sample Weight:	3852.40		

SGS Minerals Sample ID: 072-28962-014

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	15.19		
% Ash	[ASTM D 3174/5142]	34.89	41.14	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	6496	7660	13013
% Sulfur	[ASTM D 4239]	0.40	0.47	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	53.71	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.61	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.22	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
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Client Sample ID:	D9-A Coal	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample Type :**	-2" Moist
Matrix:	Coal		
Net Sample Weight:	1653.10		

SGS Minerals Sample ID: 072-28962-015

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	7.29		
% Ash	[ASTM D 3174/5142]	34.08	36.76	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	7726	8333	13176
% Sulfur	[ASTM D 4239]	0.55	0.59	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	44.11	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.71	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.42	lb	ASTM D 5865

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Analysis Report

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Carbon Resources LLC
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Client Sample ID:	D9-A	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	Coal Spa?
Matrix:	Coal	**Sample Type :**	-2" Moist
Net Sample Weight:	2990.00		

SGS Minerals Sample ID: 072-28962-016

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	6.81		
% Ash	[ASTM D 3174/5142]	37.09	39.80	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	7312	7847	13035
% Sulfur	[ASTM D 4239]	0.52	0.55	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	50.72	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.71	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.41	lb	ASTM D 5865

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Analysis Report

August 13, 2010

Carbon Resources LLC
PO Box 11789
Albuquerque, NM 87192
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Client Sample ID:	D-11	**Mine :**	Kinney Pad
Date Received:	09/24/2007	**Sample ID :**	11 - 48 Coal Material
Matrix:	Coal	**Sample Type :**	-2" Moist
Net Sample Weight:	2812.30		

SGS Minerals Sample ID: 072-28962-017

		As Received	Dry	MAF
% Moisture, Total	[ASTM D 3302]	11.33		
% Ash	[ASTM D 3174/5142]	34.95	39.41	
Gross Calorific Value (Btu/lb)	[ASTM D 5865]	7063	7965	13146
% Sulfur	[ASTM D 4239]	0.41	0.46	

Tests	Result	Unit	Method
Pounds of Ash/mm Btu	49.48	lb	ASTM D 5865
Pounds of Sulfur/mm Btu	0.57	lb	ASTM D 5865
Pounds of SO2/mm Btu	1.15	lb	ASTM D 5865

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Exhibit 7

Vegetation Information

VEGETATION OF THE KINNEY NO. 2 MINE SITE

Prepared by

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September 2007

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INTRODUCTION

The old Kinney No. 2 mine area, an historical coal mining site, has been proposed to be the location for new mining activities. The site is located in Carbon County, Utah just northeast of the town of Scofield. Elevation of the permit area ranges from approximately 7,700 to 8,600 ft above sea level, with most of the surface facilities proposed in the lower elevations of that range.

Most of the vegetation proposed to be disturbed by the new mining activities have already been disturbed by the previous mining operations mentioned above. However, a sagebrush/grass community that has not been disturbed previously could also be impacted by the new mine.

The purpose of this document is to report the findings from quantitative sampling the plant communities that could be impacted by the proposed new mining activities. The communities that may be affected are: 1) the previously disturbed (presently rabbitbrush/grass) community, and 2) a native sagebrush/grass community. Additionally, a reference area to be used for future revegetation success standards has also been chosen and sampled for this study. A vegetation map showing the plant communities within and adjacent to the permit area has been prepared and included in the Mining & Reclamation Plan (MRP) for the new Kinney No. 2 Mine site (Map 5, Regional Vegetation). This map also shows the sample areas where the quantitative data were collected to compile this report.

METHODS

Methodologies used for this study were performed in accordance with the guidelines supplied by the State of Utah, Division of Oil, Gas and Mining (DOGM). Quantitative and qualitative data were taken in the plant communities that have been proposed for disturbance area along with a reference area chosen to represent them at the time of final reclamation and revegetation. These datasets were recorded August 8-9, 2007.

Sample Areas

GPS coordinates within the sample areas are provided below.

GPS COORDINATES FOR THE VEGETATION SAMPLE AREAS OF THE KINNEY NO. 2 MINE (August 2007; UTM NAD 27)

Community Name	Zone	Easting	Northing	Notes
Rabbitbrush/Grass	12	0486865 0486783	4397843 4397713	a) Area was previously disturbed by mining, b) was a sagebrush/grass community prior to disturbance, c) coordinates represent centers of transect lines.
Sagebrush/Grass	12	0486953 0486920	4397681 4397737	a) Proposed disturbed native undisturbed community, b) coordinates represent centers of transect lines.
Reference Area	12	0487053	4397766	a) Native, undisturbed community sagebrush/grass community, b) coordinates represent center of transect line.

Sampling Design and Transect/Quadrat Placement

Transect lines for vegetation sampling were placed randomly within the boundaries of the proposed disturbed and reference areas. The transect placement technique was employed with the goal to adequately sample a representative subset of the entire site as a whole. Once the transects were established, quadrat locations for sampling were chosen using random numbers from the transect lines with the objective to record data without preconceived bias.

Cover and Composition

Cover estimates were made using ocular methods with meter square quadrats. Species composition, cover by species, and relative frequencies were also assessed from the quadrats. Additional information recorded on the raw data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes. Plant nomenclature follows "A Utah Flora" (Welsh et al., 2003).

Woody Species Density

Density of woody plant species for the proposed disturbed and reference areas was estimated using the point-quarter method. In this method, random points were placed on the sample sites and measured into four quarters. The distances to the nearest woody plant species were then recorded in each quarter. The average point-to-individual distance was equal to the square root

of the mean area per individual. The number of individuals per acre was the end results of the calculations.

Sample Size & Adequacy

Sampling adequacy for cover and density was attempted by using the formula given below.

$$nMIN = \frac{t^2 s^2}{(dx)^2}$$

where,

nMIN	= minimum adequate sample
t	= appropriate confidence t-value
s	= standard deviation
x	= sample mean
d	= desired change from mean

Statistical Analyses

Student's t-tests were employed to compare the total living cover and total woody species density of the proposed disturbed sites with the reference area.

Photographs

Color photographs of the sample areas were taken at the time of sampling and have been

included in this report.

Threatened & Endangered Plant Species

Prior to the field work, a list of those plant species that could be in the area and have been identified by agencies as rare, sensitive, threatened or endangered was prepared. Habitats were surveyed for these species at the mine site prior to and during the sample period.

Raw Data

The raw data have been summarized on spreadsheets and are available upon request.

RESULTS

Previously Disturbed Areas

Most of the plant communities in the permit area that have been proposed for disturbance by the new mining operations were impacted previously by other activities, most of which were a result of the historical mining mentioned above. A very small proportion of these disturbances were within aspen communities, but most were within sagebrush/grass communities.

The "previously disturbed area", one area that has been proposed for new disturbance by the

proposed mine, was quantitatively sampled by placing sample quadrats over the entire area [see *Map 5, Regional Vegetation (included in the MRP) and Color Photographs of the Sample Areas (included in this report*]. The dominant plant species in the previously disturbed area were those one would expect in a plant community that has been impacted and not reclaimed, including the shrub, rubber rabbitbrush (*Chrysothamnus nauseosus*), and grasses such as Western wheatgrass (*Elymus smithii*) and Kentucky bluegrass (*Poa pratensis*). Prior to disturbance, the community was once primarily a sagebrush/grass community. There were also several forb species present in the sample quadrats, each of which comprised less than 2 percent of the living cover. Examples of these forbs were native species such as hoary aster (*Machaeranthera canescens*), silky lupine (*Lupinus sericeus*), Engelmann's daisy *(Erigeron engelmannii*) and other "weedy", exotic species such as houndstongue (*Cynoglossum officinale*), and dandelion (*Taraxacum officinale*). A list of all plant species present in the sample quadrats placed in the previously disturbed area is shown on Table 1.

The total living cover of the community was estimated at 39.50% (Table 2-A). Composition of the cover was comprised of 44.73% shrubs, 34.09% grasses and 21.18% forbs (Table 2-B). Woody species density measurements were also recorded. The total number per acre was only 210 individuals, most of which were rubber rabbitbrush (Table 3).

Proposed Disturbed Sagebrush/Grass

The major plant community that has *not* been previously disturbed, but may also be impacted by

the proposed new mining activities, is a sagebrush/grass community [see *Map 5, Regional Vegetation (included in the MRP) and Color Photographs of the Sample Areas (included in this report*]. The two dominant plant species in the community by a wide margin were: the shrub, Vasey sagebrush (*Artemisia tridentata* var. *vaseyana*) and the grass, bluestem wheatgrass (*Elymus spicatus*). The next most common shrub was viscid rabbitbrush (*Chrysothamnus viscidiflorus*), and the next most common grass was Kentucky bluegrass. There were also several native forb species present in the sample quadrats, the most common of which was Watson's penstemon (*Penstemon watsonii*). For a complete listing of the plants present in the quadrats including all cover and frequency values, refer to Table 4.

The total living cover of the sagebrush/grass community was estimated 63.83% (Table 5-A). In the living cover, 55.42% of it was comprised of shrubs, 34.98% grasses and 9.60% forbs (Table 5-B). Woody species density was estimated 7,573 plants per acre (Table 6) with the three most common shrubs as Vasey sagebrush, viscid rabbitbrush and snowberry (*Symphoricarpos oreophilus*).

Sagebrush/Grass Reference Area

Another native sagebrush/grass community that will remain undisturbed was chosen in the immediate area to represent future standards for revegetation success [see *Map 5, Regional Vegetation (included in the MRP) and Color Photographs of the Sample Areas (included in this report*]. This community was sampled so that it could be compared statistically at this time with

the sagebrush/grass community proposed for disturbance to make sure it would be an appropriate area to be used for future revegetation success standards.

Very much like the proposed disturbed sagebrush/grass community it was chosen to represent and be compared with, the most common shrubs here were Vasey sagebrush and viscid rabbitbrush; the most common grasses were bluebunch wheatgrass and Kentucky bluegrass. Forbs species were also similar to the community proposed for disturbance (Table 7).

The total living cover for the reference area was 60.83% (Table 8-A). The composition of the cover by lifeform was represented by 61.42% shrubs, 28.15% grasses and 10.43% forbs (Table 8-B). The total woody species density for the community was 7,595 plants per acre with the same species for dominants as the area proposed for disturbance (Table 9).

Threatened & Endangered Plant Species Survey

No rare, threatened, endangered, endemic or otherwise sensitive plant species were found in the areas proposed for new disturbance.

Table 1: Kinney No. 2 Mine. Living Cover and Frequency by Plant Species (2007).

Community: Rabbitbrush/Grass (Previously Disturbed)	Mean Percent	Standard Deviation	Percent Frequency
OVERSTORY			
Populus tremuloides	1.50	7.76	4.00
UNDERSTORY			
SHRUBS			
Amelanchier utahensis	0.10	0.70	2.00
Artemisia tridentata	4.30	6.40	38.00
Chrysothamnus nauseosus	11.46	15.95	60.00
Mahonia repens	0.10	0.70	2.00
Purshia tridentata	0.50	2.50	4.00
Rosa woodsii	0.10	0.70	2.00
Symphoricarpos oreophilus	2.20	6.57	14.00
FORBS			
Cynoglossum officinale	0.10	0.70	2.00
Erigeron engelmannii	1.10	3.36	10.00
Geranium richardsonii	0.10	0.70	2.00
Grindelia squarrosa	0.60	2.15	8.00
Ipomopsis aggregata	0.20	1.40	2.00
Lupinus sericeus	1.30	3.85	12.00
Machaeranthera canescens	1.50	3.20	20.00
Melilotus officinalis	0.40	1.36	8.00
Polygonum aviculare	0.40	2.80	2.00
Taraxacum officinale	0.60	2.15	8.00
GRASSES			
Agropyron cristatum	0.40	2.20	4.00
Bromus tectorum	0.80	3.79	6.00
Elymus smithii	7.34	10.01	50.00
Elymus spicatus	0.20	1.40	2.00
Hordeum jubatum	0.10	0.70	2.00
Poa pratensis	4.10	8.58	24.00

Table 2: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Rabbitbrush/Grass (Previously Disturbed)		
A. TOTAL COVER	Mean Percent	Standard Deviation
Overstory (O)	1.50	7.76
Understory (U)	38.00	18.17
Litter	14.20	13.01
Bareground	25.40	19.69
Rock	22.40	16.77
O+ U	39.50	20.16
B. % COMPOSITION		
% COMPOSITION		
Shrubs	44.73	34.28
Forbs	21.18	29.68
Grasses	34.09	28.51

Table 3: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Rabbitbrush/Grass (Previously Disturbed)	
SPECIES	**Individuals Per Acre**
Amelanchier utahensis	
Artemisia tridentata	63.92
Cercocarpus oreophilus	1.05
Chrysothamnus nauseosus	116.31
Chrysothamnus viscidiflorus	1.05
Populus tremuloides	4.19
Purshia tridentata	5.24
Rosa woodsii	1.05
Symphoricarpos oreophilus	16.76
TOTAL	**209.56**

Table 4: Kinney No. 2 Mine. Living Cover and Frequency by Plant Species (2007).

Community: Sagebrush/Grass (Proposed Disturbed)	Mean Percent	Standard Deviation	Percent Frequency
SHRUBS			
Amelanchier utahensis	1.33	4.07	10.00
Artemisia tridentata var. vaseyana	18.50	12.59	93.33
Chrysothamnus viscidiflorus	7.50	8.24	56.67
Mahonia repens	0.17	0.90	3.33
Purshia tridentata	2.33	5.28	23.33
Symphoricarpos oreophilus	5.83	6.59	56.67
FORBS			
Astragalus sp.	0.33	1.80	3.33
Cirsium sp.	0.33	1.25	6.67
Eriogonum sp.	1.17	2.79	16.67
Hedysarum boreale	1.17	2.48	20.00
Lupinus sericeus	0.83	4.49	3.33
Machaeranthera canescens	0.17	0.90	3.33
Penstemon watsonii	2.00	3.56	26.67
GRASSES			
Elymus spicatus	13.17	13.63	70.00
Poa pratensis	0.50	2.69	3.33
Poa secunda	8.17	8.90	60.00
Stipa comata	0.33	1.80	3.33

Table 5: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Sagebrush/Grass (Proposed Disturbed)	Mean Percent	Standard Deviation
A. TOTAL COVER		
Total Living Cover	63.83	6.41
Litter	15.73	9.82
Bareground	10.07	7.37
Rock	10.37	10.63
B. % COMPOSITION		
Shrubs	55.42	18.54
Forbs	9.60	11.07
Grasses	34.98	18.45

Table 6: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Sagebrush/Grass (Proposed Disturbed)	
SPECIES	**Individuals Per Acre**
Amelanchier utahensis	63.11
Artemisia tridentata var. vaseyana	3912.62
Chrysothamnus nauseosus	63.11
Chrysothamnus viscidiflorus	1640.78
Purshia tridentata	378.64
Symphoricarpos oreophilus	1514.56
TOTAL	**7572.81**

Table 7: Kinney No. 2 Mine. Living Cover and Frequency by Plant Species (2007).

Community: Sagebrush/Grass (Reference Area)			
TREES & SHRUBS	Mean Percent	Standard Deviation	Percent Frequency
Artemisia tridentata var. vaseyana	26.33	10.72	100.00
Chrysothamnus nauseosus	1.17	4.78	6.67
Chrysothamnus viscidiflorus	6.50	6.21	60.00
Purshia tridentata	0.83	3.67	6.67
Symphoricarpos oreophilus	3.00	6.14	26.67
FORBS			
Castilleja sp.	0.17	0.90	3.33
Eriogonum sp.	1.67	3.50	23.33
Hedysarum boreale	1.50	2.93	23.33
Lupinus sericeus	1.00	3.27	10.00
Penstemon watsonii	2.00	2.45	40.00
GRASSES			
Elymus salinus	0.33	1.25	6.67
Elymus spicatus	9.33	7.04	73.33
Poa pratensis	0.33	1.25	6.67
Pos secunda	6.67	7.89	56.67

Table 8: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Sagebrush/Grass (Reference Area)		
A. TOTAL COVER	Mean Percent	Standard Deviation
Total Living Cover	60.83	7.75
Litter	11.50	6.08
Bareground	16.80	9.11
Rock	10.87	7.82
B. % COMPOSITION		
Shrubs	61.42	14.19
Forbs	10.43	9.79
Grasses	28.15	12.56

Table 9: Kinney No. 2 Mine. Total Cover and Composition (2007).

Community: Sagebrush/Grass (Reference Area)	
SPECIES	**Individuals Per Acre**
Amelanchier utahensis	126.58
Artemisia tridentata var. vaseyana	4999.96
Chrysothamnus nauseosus	126.58
Chrysothamnus viscidiflorus	1455.68
Juniperus scopulorum	63.29
Purshia tridentata	63.29
Symphoricarpos oreophilus	759.49
TOTAL	**7594.88**

SUMMARY & DISCUSSION

Statistical comparisons of the total living cover and woody species density values were made between the areas proposed for disturbance by mining activities and the reference area chosen to represent future revegetation success standards. When the total living cover of the previously disturbed rabbitbrush/grass community (also proposed for new disturbance) was compared to the sagebrush/grass reference area, results suggested the reference area had significantly more cover (Figure 1-A). Similarly, when woody species density of these two areas were compared, results again suggested there was a significant difference with a greater density value for the reference area (Figure 2-A).

FIGURE 1. A statistical comparison (Student's t-tests) of the **total living cover** between the proposed disturbed (previously disturbed and undisturbed) and reference areas.

	$\bar{x}$	s	n	t	df	SL
A. Rabbitbrush/Grass						
Previously Disturbed:	39.50	20.16	50			
Reference Area:	60.83	7.75	30			
t-test				-5.543	78	p<0.001
B. Sagebrush/Grass						
Proposed Disturbed:	63.83	6.41	30			
Reference Area:	60.83	7.75	30			
t-test				1.634	58	N.S.

$\bar{x}$ = mean
s = standard deviation
n = sample size
t = Student's t-value
df = degrees of freedom
p = probability
SL= Significance Level

Next, the total living cover value of the proposed disturbed (currently undisturbed) sagebrush/grass community was compared with the reference area – the differences were non-significant (Figure 1-B). The woody species densities of these two communities were also non-significant (Figure 2-B).

As described above, much of the area has been previously disturbed by earlier mining and other activities. Although the quantitative data of the previously disturbed rabbitbrush/grass community was compared to the reference area at this time, future success standards may be different. State regulations (R645-301-356.250) indicates that "*areas previously disturbed by mining that were not reclaimed to the requirements of R645-200 through R645-203 and R645-301 through R645-302 and that are*

FIGURE 2. A statistical comparison (Student's t-tests) of the **woody species density** between the proposed disturbed (previously disturbed and undisturbed) reference areas.

	$\bar{x}$	s	n	t	df	SL
A. Rabbitbrush/Grass						
Previously Disturbed:	209.56	1138.85	50			
Reference Area:	7594.88	2309.39	30			
t-test				-19.119	78	p<0.001
B. Sagebrush/Grass						
Proposed Disturbed:	7572.81	2575.81	30			
Reference Area:	7594.88	2309.39	30			
t-test				-0.035	58	N.S.

$\bar{x}$ = mean
s = standard deviation
n = sample size
t = Student's t-value
df = degrees of freedom
SL= Significance Level

remined or otherwise redisturbed by coal mining and reclamation operations, at a minimum, the vegetative ground cover will be not less than the ground cover existing before redisturbance and will be adequate to control erosion". To address this issue, a discussion about reclamation and revegetation standards should be provided in the Mining & Reclamation Plan for the Kinney No. 2 Mine.

For those areas that will be disturbed by the proposed new mining activities that have *not* been previously impacted such as the sagebrush/grass community described in this report, the state regulations (R645-301.353) require that the final established plant communities: 1) *be diverse, effective, and permanent,* 2) *be comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved postmining land use and approved by the Division,* 3) *be at least equal in extent of cover to the natural vegetation of the area,* 4) *be capable of stabilizing the soil surface from erosion,* 5) *be compatible with the approved postmining land use,* 6) *have the same seasonal characteristics of growth as the original vegetation,* 7) *be capable of self-regeneration and plant succession, and* 8) *be compatible with the plant and animal species of the area.*

Small and comparatively inconsequential stands of aspen trees presently exist in the previously disturbed areas. Sample quadrats were also placed in these stands of trees. Because of the relative small area that these stands comprise, and because they too were disturbed previously and will be subject to the rules described above for areas previously impacted and not reclaimed, data for these aspen stands have been included with the other previously disturbed community

dataset. Accordingly, this dataset will represent the previously disturbed area as a whole, rather than attempting to separate or subdivide it.

The reference area chosen and compared statistically to the proposed disturbed (currently undisturbed) sagebrush/grass community should provide a community with adequate standards to achieve the required characteristics described above for the reclaimed areas at time of final reclamation and revegetation of the Kinney No. 2 Mine.

COLOR PHOTOGRAPHS OF THE SAMPLE AREAS

Photo 1: Sagebrush/Grass (Proposed Disturbed)

Photo 2: Sagebrush/Grass (Proposed Disturbed)

Photo 3: Sagebrush/Grass (Reference Area)

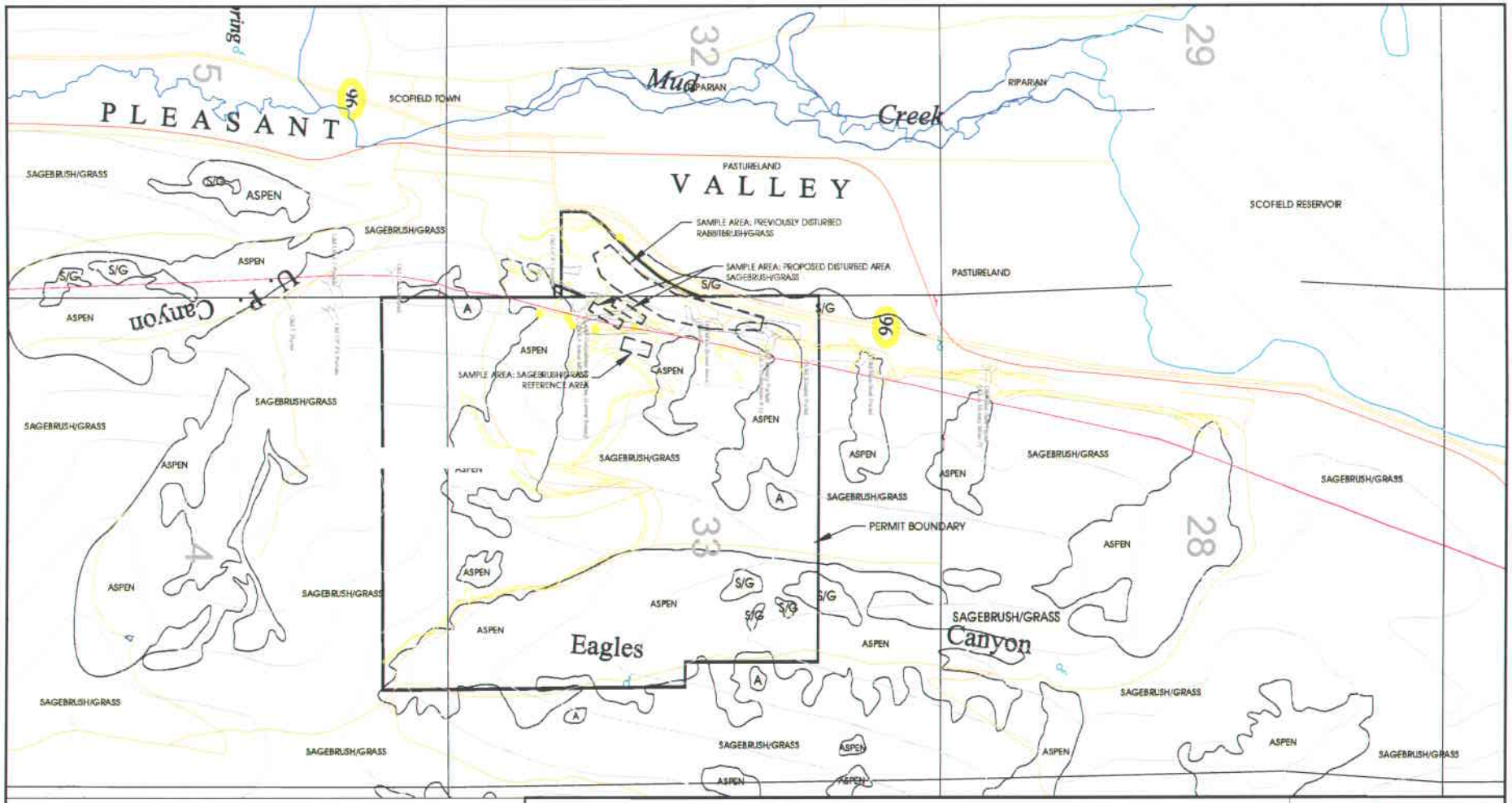
Photo 4: Sagebrush/Grass (Reference Area)

Photo 5: Rabbitbrush/Grass (Previously Disturbed)

Photo 6: Rabbitbrush/Grass (Previously Disturbed)

Photo 7: Rabbitbrush/Grass (Previously Disturbed)

Photo 8: Rabbitbrush/Grass (Previously Disturbed)



LEGEND

PRE - MINING DISTURBED AREA

PRE - MINING ROADS

KINNEY NO. 2 MINE DISTURBANCE FOOTPRINT

N

SCALE

Contour Interval 20 ft

Carbon Resources LLC

KINNEY NO. 2 MINE

FIGURE 1

REGIONAL & SITE

VEGETATION MAP

DRAWN BY P.C., B.G. DATE 11/07

APPROVED BY G.H. DATE

DWG. NAME

Exhibit 8

Fish and Wildlife Information

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

JAMES F. KARPOWITZ
Division Director

August 13, 2007

Ben Grimes
Hansen, Allen & Luce Engineers
23 S. Carbon Avenue, Suite 21
Price, Utah 84501

Subject: Species of Concern Near the Proposed Coal Mine in Carbon County

Dear Ben Grimes:

I am writing in response to your email dated August 9, 2007 regarding information on species of special concern proximal to the proposed coal mine in Carbon County, Utah (Sections 26-35 of Township 12 South, Range 7 East, and Sections 2-6 of Township 13 South, Range 7 East, SLB&M).

The Utah Division of Wildlife Resources (UDWR) has records of occurrence for sandhill crane and bald eagle within the project area noted above. In addition, in the vicinity there are records of occurrence for northern flying squirrel and northern river otter.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the southeastern region, Chris Wood, at (435) 636-0279 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sarah Lindsey

Sarah Lindsey
Information Manager
Utah Natural Heritage Program

cc: Chris Wood, SERO

1594 W. North Temple, Suite 2110, PO Box 146301, Salt Lake City, UT 84114-6301
telephone (801) 538-4700 • facsimile (801) 538-4709 • TTY (801) 538-7458 • *www.wildlife.utah.gov*

UTAH DNR WILDLIFE RESOURCES

Ben Grimes

From: "Ben Grimes" <halengpr@emerytelcom.net>
To: "Sarah Lindsey" <sarahlindsey@utah.gov>
Sent: Monday, August 13, 2007 12:21 PM
Subject: Re: Information Request

Thank you for the letter.

As I indicated in my first email, I need a (complete) list of mammals, birds, amphibians, snakes and fish that occur in the area, not just species of special interest. I have to provide these lists in the permit application to the Utah Division of Oil, Gas and Mining. Chris Wood told me you would be to provide me with this information.

If you have any questions please call me at (435) 650-7075.

Thank You,
Ben Grimes

----- Original Message -----
From: "Sarah Lindsey" <sarahlindsey@utah.gov>
To: "Ben Grimes" <halengpr@emerytelcom.net>
Cc: "Chris Wood" <CHRISWOOD@utah.gov>
Sent: Monday, August 13, 2007 10:29 AM
Subject: Re: Information Request

Mr. Grimes,

Attached is a letter in response to your request. Please contact me if you have any questions.

Sincerely,
Sarah Lindsey

Utah Natural Heritage Program
Division of Wildlife Resources
1594 West North Temple
Salt Lake City, UT 84114-6301
(801) 538-4759

>>> "Ben Grimes" <halengpr@emerytelcom.net> 8/9/2007 4:12 PM >>>
I am working on a permit application for a new coal mine in Carbon County and I need to include the following:

1. Species lists for mammals, birds, amphibians, snakes, and fish
2. Threatened and Endangered species

The attached PDF shows the area I need information for --- the large area

inside the biggest black box.

If you have any questions please call me at (435) 650-7075.

Thank you,
Ben Grimes, Office Manager
HANSEN, ALLEN & LUCE ENGINEERS
PRICE, UAH

No virus found in this incoming message.
Checked by AVG Free Edition.
Version: 7.5.476 / Virus Database: 269.11.17/951 - Release Date: 8/13/2007
10:15 AM

Ben Grimes

From: "Lenora Sullivan" <lenorasullivan@utah.gov>
To: <halengpr@emerytelcom.net>
Cc: "Chris Colt" <CHRISCOLT@utah.gov>
Sent: Monday, March 20, 2006 10:12 AM
Subject: Re: T&E Species Request

Dear Mr.Grimes:

I am writing in response to your email dated March 9, 2006 for information regarding species of special concern proximal to a coal mine project located in Carbon County, Utah [T012S 007E S27-29, 32-34; T013S 007E S3-5 SLB&M].

The Utah Division of Wildlife Resources (UDWR) does not have records of occurrence for any threatened, endangered, or sensitive species within the project boundaries. However, in the vicinity of the project, there are recent records of occurrence for winter roosting habitat for bald eagle, a federally-listed threatened bird, which is included on the Utah Sensitive Species List.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the southeastern region, Chris Colt, at (435) 636-0279 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Lenora B. Sullivan
Information Manager
Utah Natural Heritage Program

cc: Chris Colt, SERO

>>> <halengpr@emerytelcom.net> 03/09/2006 1:36 PM >>>
We are working on a coal mine permit application with the Utah Div of Oil, Gas and Mining and need consultation on T&E species for the proposed Kinney No 2 Mine area. The area is in Carbon County. The attached PDF map shows the area of interest.

Would you please review your records and indicate if there have been any T&E species identified within the area marked on the map.

Please reply to my email address, and by hard copy.

If you have any questions please call Ben Grimes at (435) 650-7075.

Thank
u.

This message was sent using Endymion MailMan.
http://www.endymion.com/products/mailman/

Ben Grimes

From: "Ben Grimes" <halengpr@emerytelcom.net>
To: <sarahlindsey@utah.gov>
Sent: Thursday, August 09, 2007 4:12 PM
Attach: List MapRequest_0001.pdf
Subject: Information Request

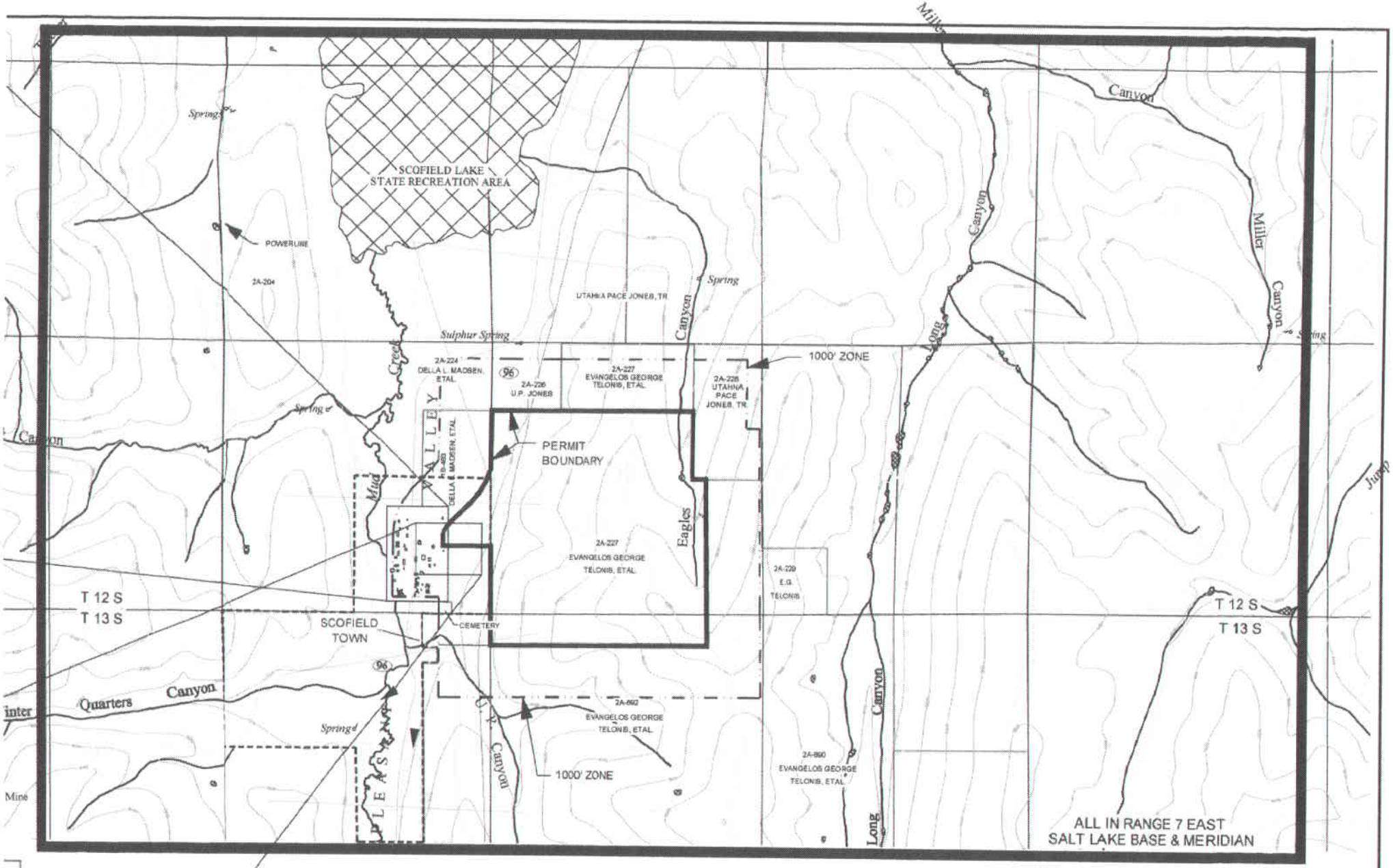
I am working on a permit application for a new coal mine in Carbon County and I need to include the following:

1. Species lists for mammals, birds, amphibians, snakes, and fish
2. Threatened and Endangered species

The attached PDF shows the area I need information for — the large area inside the biggest black box.

If you have any questions please call me at (435) 650-7075.

Thank you,
Ben Grimes, Office Manager
HANSEN, ALLEN & LUCE ENGINEERS
PRICE, UAH



NEED SPECIES LISTS -MAMMALS, BIRDS, AMPHIBIANS, SNAKES ETC
AND T & E SPECIES FOR THIS AREA

Exhibit 9

Seep and Spring Survey

Rock Logic Consulting LLC

Rock Logic Consulting
PO Box 544 • Cedaredge, CO 81413
Phone: (435) 851-9044 • rocklogicconsulting@gmail.com
Brad Lindsay • Consulting Geologist

Memorandum

Date: 20 December 2006
To: Greg Hunt – Carbon Resources
From: Brad Lindsay
Subject: Spring and Seep Survey - June 2006

Summary

A spring and seep survey was conducted for Carbon Resources June 5th through June 9th 2006. Brad Lindsay conducted an extensive field survey within the area of interest outlined by Greg Hunt. Springs were observed and recorded in the field by traversing the property. Springs were identified in UP Canyon, Eagle Canyon, Long Canyon, Merrill Canyon, and Jump Creek. A 1/8-mile radius was traversed around drill hole locations listed in Carbon Resources Minor Coal Exploration Plan December 22, 2005. CR-06-04 was the only drill hole location with a spring within the 1/8-mile radius.

Methods

Area of interest survey - Greg Hunt outlined a large area of interest. The area was traversed by 4-wheeler and by hiking. Large dry slopes were observed from a distance. Areas that are more likely to have springs (such as down-dip slopes, heavily wooded areas, and canyon bottoms) were covered with a tighter traverse. Indications of existing or previously existing water were watched for. Indications include changes in vegetation, soil erosion, and desiccation cracks. When springs were located they were described, photographed, and coordinates taken. Flows were estimated for each spring.

Drill hole survey - A 1/8-mile radius was walked around each drill hole. Areas within the circle that could not be observed while walking the radius were traversed. Distances were measured using a handheld GPS unit. Evidence of springs was recorded as described above. Eagle Seep 3 was the only spring or seep found within a 1/8-mile radius of a drill hole location.

Observations

Springs were identified in five main locations: UP Canyon, Eagle Canyon, Long Canyon, Merrill Canyon, and Jump Creek. Findings at each of these locations are discussed below. Please refer to the attached map for exact locations. A track identifying the traverse path is also included on the map. Photographs of the springs are attached.

UP Canyon and near highway 96

Sulfur Spring – is located just east of highway 96 approximately 1 mile north of Scofield. The spring runs year round at an average rate of approximately 80 gpm. The spring flows through a culvert under the highway and west into a field.

Miller Spring – is approximately 1 ¼ mile north of sulfur spring east of highway 96. It is slightly north of the area of interest. A wooden fence surrounds the springhead. The spring only flows in the springtime. Estimated flow at the time of the survey is approximately 1 gpm.

UP Spring – is located east of the dirt road up the south fork of UP Canyon. The spring was not flowing, but water was ponded in a low area.

Two dry ponds and one full pond were identified near the end of the road up the south fork of UP Canyon. One dry pond was located near the end of the road up the east fork of UP Canyon.

Eagle Canyon

Angle Spring – is located at the north end of Eagle Canyon where it bends to the west. The spring is piped out of the ground into several metal stock tanks. The spring flows year round at an average rate of approximately ½ gpm.

Eagle Seep 1 & Eagle Seep 1A – these seeps are located near the valley bottom. They appear to flow into a stock pond immediately down hill and north. There is some old piping around the seeps and the stock pond. The flow from the seeps is estimated to be less than ½ gpm.

Eagle Spring 2 – is located north of Seep 1 and 1A in the valley bottom. A springhead was not located. A large stock pond was observed to be full all summer long. It is assumed that the spring feeds the pond from its bottom somewhere. The flow was not estimated.

Eagle Seep 3 – is located approximately 400 feet northeast downhill of proposed drill hole CR-06-04. The seep has an estimated flow of less than ½ gpm.

There is a dry trough and some piping directly north of an old corral in the bottom of the valley east of proposed drill hole CR-06-04. It appears that there may have been a spring at that location at one time.

Long Canyon

An effluent stream flows down Long Canyon fed by visible springs and seeps. The springs and seeps along with current beaver ponds have been mapped.

LC Seep 1 & 2 – are located at the north (downstream) end of Long Canyon. These seeps are north of the area of interest.

LC Seep 3 – is located approximately 1 mile south of LC Seep 1 &2.

LC Spring 1 – is near LC Seep 3. It is located on the west side of the stream. The estimated flow is approximately 10 gpm.

LC Spring 2 – is near LC Spring 1. It is located on the east side of the stream. The estimated flow is approximately 1/2 gpm.

LC Spring 3 – is south of LC Spring 1 & 2. It is located on the west side of the stream. The estimated flow is approximately 3 gpm.

LC Spring 4 – is part way up a small drainage along the west side of the canyon. The estimated flow is less than ½ gpm.

LC Spring 5 & 5A – are located in the canyon bottom at the east-west fence line that runs along the township 12 and township 13 boundary. Each spring has an estimated flow of approximately 5 gpm.

LC Spring 6 – is located in the west split of Long Canyon. The estimated flow is approximately 10 gpm.

LC Spring 7 – is located in a drainage along the west side of the west split of Long Canyon. It feeds a small stock pond. The estimated flow is approximately 7 gpm.

LC Spring 8 – is located in the east split of Long Canyon. It flows out of a steep cut bank west of the stream. The estimated flow is approximately 20 gpm.

Merrill Canyon

Merrill Canyon branches off approximately 1 mile south of the mouth of Long Canyon. It runs southeast toward Jump Creek. A small stream flows from Merrill Canyon into the stream in Long Canyon. At the time of this field survey, the majority of the water flowing from Merrill Canyon appeared to originate from springs in the canyon.

Merrill Spring 1 – is located at the canyon bottom up near the southeast end of the canyon. The estimated flow is approximately 10 gpm.

Luis Spring – is located on the south edge of the stream. The estimated flow is approximately 10-15 gpm.

Guzman Spring – is immediately west. The estimated flow is approximately 1/2 gpm.

Merrill Spring 2 – is north down the canyon. It is also located on the south side of the canyon. The estimated flow is approximately 10 gpm.

Merrill Spring 4, 5 & 5A, & 6 – are located in a small canyon that extends south from Merrill Canyon. Merrill Spring 4 is at the south (upstream) end of the canyon. It has an estimated flow of approximately 5 gpm. Merrill springs 5 and 5A are near the middle of the offshoot canyon. There is some 1" pvc piping protruding from the ground here. The springs have an estimated combined flow of approximately 10 gpm. Merrill spring 6 is located near the mouth of the offshoot canyon. It feeds a small pond. The estimated flow is less than 1 gpm.

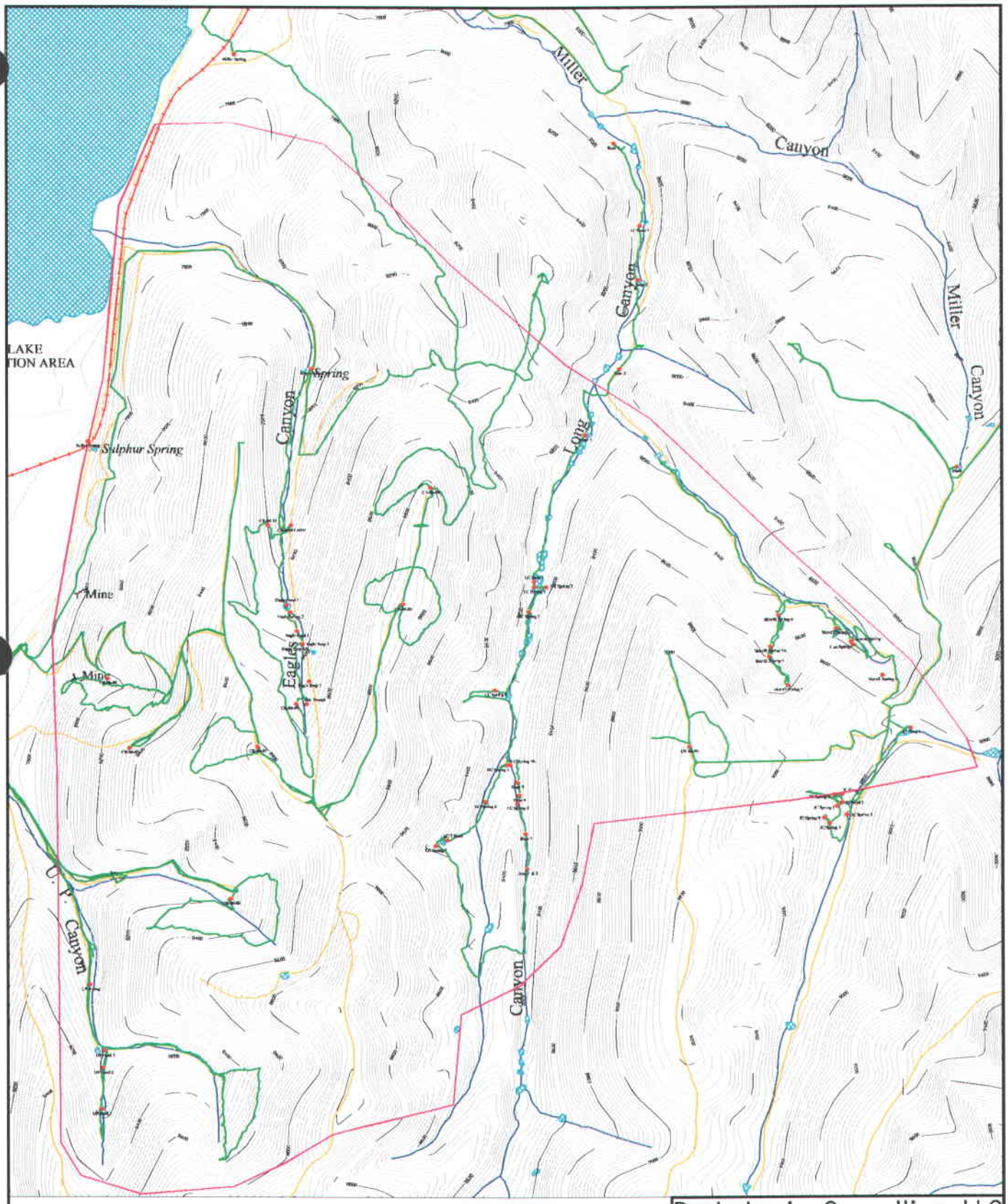
Jump Creek

Several springs were identified just south of the area of interest near Jump Creek. There is a spring fed stock pond in the area. There is also a second pond down the canyon that is fed by Jump Creek.

JC Spring 1 – is south of the pond and flows into Jump Creek. It has an estimated flow of approximately 10 gpm.

JC Spring 2 – is located northwest and feeds into the stock pond. It has an estimated flow of approximately 5 gpm.

JC Springs 3, 4, & 5 – are all located south of the stock pond and flow into Jump Creek. They each have estimated flows of less than 1 gpm.



KEY

Angle Spring	Spring, Seep, or Pond Location
	Area of Interest Boundary
	Survey Traverse Track

Drawing Loc: Spring and Seep Survey\GPS Data in KCS.dwg

Scale 1 = 2,200

Rock Logic Consulting LLC

Carbon Resources LLC
Spring and Seep Survey
June 2006

DWG BWL & ER
CKD
APD

DATE: 6/28/06

Miller Spring

UP Spring

UP Pond 1

Angle Spring

Eagle Seep 1

Eagle Spring 2 and Pond

Eagle Seep 3

LC Spring 1

LC Spring 2

LC Spring 3

LC Spring 4

LC Spring 5A

LC Spring 5A

LC Spring 5

LC Spring 6

LC Spring 7

LC Spring 8

Merrill Spring 1

Luis Spring

Guzman Spring

Merrill Spring 4

Merrill Spring 5

JC Pond 1

JC Spring 1

JC Spring 2

JC Pond 2

JC Spring 3

JC Spring 4

JC Spring 5

Exhibit 10

Surface and Ground Water Field Measurements

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Angle Spring

Elevation: **~7,940**

Date	Estimated Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
9/6/2005	0.25	7.35	3.7	358	22.0
10/31/2005	0.33	6.01	4.7	519	10.6
11/28/2005	0.35	6.46	4.7	428	22.2
12/22/2005	0.35	5.23	3.9	512	11.6
1/22/2006	0.31	4.36	8.4	469	8.9
2/26/2006		8.28	4.7	385	14.7
3/27/2006	0.35	**7.04**		**670**	~10
4/26/2006	0.75	7.28	5.1	361	18.0
5/25/2006	1.00	5.96	3.8	492	20.5
6/29/2006		7.5	6.3	522	20.9
7/31/2006	1.25	7.24	3.7	410	29.9
8/20/2006	1.03	7.26	3.5	156	22.3
9/7/2006	0.86	lab	4	387	18.5
10/30/2006	not measured				
11/27/2006	not measured				
12/26/2006	not measured				
1/31/2007	not measured				
2/19/2007	not measured				
3/29/2007	not measured				
4/25/2007	not measured				
5/29/2007	not measured				
6/25/2006	not measured				
7/30/2007	not measured				
3/25/2008	not measured				
	ACCESS DEINIED				

NOTE: Bolded values measured in March 2006 were analyzed at the laboratory. Specific conductivity values were actually measured as conductivity.

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Aspen Spring

Elevation:

Date	Estimated Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/30/2006					
6/29/2006					
7/31/2006					
8/20/2006					
9/7/2006					
10/30/2006					
11/27/2006					
12/26/2006					
1/31/2007					
2/19/2007					
3/29/2007					
4/25/2007					
5/29/2007					
6/25/2006					
7/30/2007					
3/25/2008					
6/16/2008	not meas	8.69	2.2	190	29.8
8/26/2008	not meas	7.91	4	496	32.8
10/29/2008	trickle	7.14	3.7	541	5.7
6/23/2010	not meas	12	20.4	295	24.6
9/28/2010	not meas	9.33		419	14.6

*The samples collected at Res-1 in June, July, & Aug 2006 were mislabeled "Scofield Res. 1" and analytic data are labeled accordingly. Data labeled Res-1 & Scofield Res. 1 represent samples collected at the same location.

Italicized Values are SUSPECT

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Eagle Spring * (Miller Spring)

Elevation: **~7,700**

Date	Estimated Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/11/2005	<10	7.35	6	98.9	18.0
9/6/2005	dried up				
10/31/2005	dried up				
11/28/2005	dried up				
12/22/2005	dried up				
1/22/2006	dried up				
2/26/2006	dried up				
3/27/2006	dried up				
4/26/2006	<10	7.2	4.7	41.8	21.0
5/25/2006		8.18	5.9	83.7	28.9
6/29/2006	dried up				
7/31/2006	dried up				
8/20/2006	dried up				
9/7/2006	dried up				
10/30/2006	dried up				
11/27/2006	dried up				
12/26/2006	dried up				
1/31/2007	dried up				
2/19/2007	dried up				
3/29/2007	dried up				
4/25/2007	dried up				
5/29/2007	dried up				
6/25/2006	dried up				
7/30/2007	dried up				
3/25/2008	snow				
6/16/2008	2	7.31	5	44.1	23.5
8/26/2008	dried up				
10/29/2008	dried up				
6/23/2010	dried up				
9/28/2010	dried up				

*The sample collected at Eagle Spring in May 2005 was

Carbon Resources LLC

Kinney II Baseline Water Sampling

Surface Water Field Measurements

Miller Outlet *

Elevation: **~7,632**

Date	Estimated Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/11/2005	59	8.09	6.9	474	10.4
9/6/2005	18	8.04	4.6	433	13.1
10/31/2005	134	6.89	7.2	440	4.8
11/28/2005	frozen	5.65	8.0	556	1.7
12/22/2005	frozen	6.06	6.8	435	4.2
1/22/2006	frozen	6.04	7.1	440	1.2
2/26/2006	frozen		4.6	320	14.0
3/27/2006	frozen	**8.1**		**550**	~1
4/26/2006	545	8.01	3.6	369	19.2
5/25/2006	266	8.53	4.0	408	30.2
6/29/2006	171	8.57	4.2	415	28.6
7/31/2006	103	8.41	4.4	326	27.6
8/20/2006	89	8.6	4.6	110	27.7
9/7/2006	122	lab	7.4	375	13.0
10/30/2006	182	8.33	8.5	285	13.0
11/27/2006	frozen	8	5.1	327	10.0
12/26/2006	frozen	8.06	7.2	428	8.4
1/31/2007	frozen	8.01	5.3	387	8.6
2/19/2007	frozen	8.12	7.0	354	8.0
3/29/2007	212	8.7	9.9	440	13.3
4/25/2007	156	8.54	6.7	436	23.4
5/29/2007	142	8.42	7.9	417	22.9
6/25/2006	35	8.06	4.7	508	31.0
7/30/2007	36	8.45	4.9	362	27.7
3/25/2008	23	7.8	5.0	633	17.5
6/16/2008	289	8.7		377	30.4
8/26/2008	66	8.26	3.9	456	29.6
10/29/2008	85	8.41	9.6	434	12.3
6/23/2010	43	12	22.9	283	16.5
9/28/2010	25	8.65		480	12.5

NOTE: Bolded values measured in March 2006 were analyzed at the laboratory. Specific conductivity values were actually measured as conductivity.

*Miller Outlet was initiallly misnamed "Eagle Outlet" and was once misnamed "Eagle Outlook". Samples collected from may 2005 to may 2006 were mislabled "Eagle Outlet" or "Eagle Outlook" and analyltic data are labled accordingly. From June 2006 to present the data are labled as Miller Outlet. Data labled Miller Outlet, Eagle Outlet, & Eagle Outlook represent samples collected at the

Italicized Values are SUSPECT

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Mud Creek *

Elevation: **~7,685**

Date	CFS	Estimated ** Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/11/2005		13,015	8.31	7.4	694	10.0
9/6/2005		4,937	8.51	5.4	655	17.7
10/31/2005		6,732	6.68	6.4	759	10.7
11/29/2005		6,283	6.94	7.2	758	5.6
12/22/2005		5,386	6.67	6.2	520	13.6
1/22/2006		8,527	8.63	4.1	568	7.6
2/26/2006		5,834	9.0	3.6	501	19.3
3/27/2006		5,386	**8.18**		**1000**	~2
4/26/2006		17,952	8.3	5	394	18.5
5/25/2006		58,797	8.45	4.4	324	26.5
6/29/2006		11,670		6.2	581	28.5
7/31/2006		6,732	8.4	4.8	471	26.9
8/20/2006		6,284	8.38	5.1	188	27.7
9/7/2006		5,386	lab	6.1	564	14.3
10/30/2006		7,181	7.94	6.9	424	17.3
11/27/2006		7,181	7.76	6	463	12.0
12/26/2006		6,284	8.08	7.3	571	13.1
1/31/2007		7,181	7.4	5.5	834	12.4
2/19/2007		6,732	8.3	6.8	476	12.4
3/29/2007		8,528	8.33	7.9	555	13.4
4/25/2007		9,425	8.29	7.8	546	25.0
5/29/2007		12,567	8.51	7.9	481	20.7
6/25/2006		6,733	8.65	5.7	742	27.7
7/30/2007		6,284	8.58	5.3	532	25.5
3/25/2008	9.20	4,129	7.8	5.0	633	17.5
6/16/2008	85.00	38,151	8.93	4.7	355	23.8
8/26/2008	15.00	6,732	8.31	3.9	651	28.6
10/29/2008	14.00	6,284	8.93	11.4	667	15.9
6/23/2010	17.00	7,630	*9.29*	*3.4*	289	24.6
9/28/2010	11.00	4,937	8.9		732	11.4

NOTE: Bolded values measured in March 2006 were analyzed at the

*The sample collected at Mud Creek in May 2005 was mislabeled "Muddy Creek" and analytic data are labeled accordingly. Data labeled Mud Creek & Muddy Creek represent samples collected at the same location.

** Flow Data From USGS 09310700 MUD CRK BL WINTER QUARTERS CYN @ SCOFIELD, UT From Web Site http://waterdata.usgs.gov/nwis/dv/?site_no=09310700&agency_cd=USGS&referred_module=sw

Italicized Values are SUSPECT

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Sulfur Spring *

Elevation: **~7,670**

Date	Estimated Flow (gpm)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/11/2005	73	6.76	0.7	603	13.6
9/6/2005	32	7.2	2.4	559	15.9
10/31/2005	90	5.69	2.6	541	13.2
11/28/2005	76	5.85	3.9	561	11.9
12/22/2005	69	5.64	3.5	490	17.4
1/22/2006	69	7.64	1.3	410	14.7
2/26/2006	69	8.08	4.3	383	23.9
3/27/2006	90	**7.38**		**710**	~14
4/26/2006	64	7.03	1.2	413	23.4
5/25/2006	79	7.46	2.4	503	28.2
6/29/2006	69	7.45	2.9	550	25.1
7/31/2006	74	7.27	2.0	446	24.1
8/20/2006	72	7.29	2.3	169	24.1
9/7/2006	86	lab	2.2	473	22.0
10/30/2006	80	7.27	4.0	384	22.2
11/27/2006	90	7.02	1.8	389	20.0
12/26/2006	90	7.00	3.0	538	20.0
1/31/2007	90	7.01	5.1	682	17.4
2/19/2007	88	7.03	4.1	473	21.5
3/29/2007	72	7.39	4.4	544	21.7
4/25/2007	90	7.33	7.0	557	23.4
5/29/2007	91	7.41	5.5	523	22.8
6/25/2006	86	7.25	2.4	615	27.5
7/30/2007	136	7.33	4.0	507	22.7
3/25/2008	93	6.81	2.2	973	21.9
6/16/2008	93	7.68	1.9	341	31.4
8/26/2008	127	7.14	2.5	646	27.5
10/29/2008	88	7.28	4.4	595	17.1
6/23/2010	82	12.00	14.6	423	17.4
9/28/2010	75	7.38		715	14.8

NOTE: Bolded values measured in March 2006 were analyzed at
*Samples collected at Sulfur Spring have occasionally been
Italicized Values are SUSPECT

Carbon Resources LLC

Kinney II Baseline Water Sampling
Surface Water Field Measurements

Res-1 (Scofield Reservoir) *

Elevation: **~7,620**

Date	Water Level (feet)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
5/30/2006	13.5	8.09	5.6	424	20.6
6/29/2006		9.03	10	287	31.9
7/31/2006	9.4	10.16	9.1	257	29.8
8/20/2006	7.7	9.82	9	108	35.7
9/7/2006	6.0	lab	5.2	365	15.5
10/30/2006	4.5	8.13	6.7	351	18.2
11/27/2006	4.8	frozen			
12/26/2006		frozen			
1/31/2007		frozen			
2/19/2007		frozen			
3/29/2007	7.8	8.43	9.7	408	14.9
4/25/2007	7.8	8.39	7.8	390	23.4
5/29/2007	8.1	8.48	8	350	24.9
6/25/2006	5.6	10.52	7.3	360	36.1
7/30/2007	0.1	8.02	5.9	616	28
3/25/2008		7.14	5.3	775	12.7
6/16/2008	9.1	8.69	4.6	341	31.4
8/26/2008	2.9	8.54	7.5	743	32.1
10/29/2008	96.8	7.98	7.6	605	17
6/23/2010	8.2	*12*	*38.2*	261	18.7
9/28/2010	97.7	9.22		867	23.1

*The samples collected at Res-1 in June, July, & Aug 2006 were mislabeled "Scofield Res. 1" and analytic data are labeled accordingly. Data labeled Res-1 & Scofield Res. 1 represent samples collected at the same location.

Italicized Values are SUSPECT

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-01

DATUM :	Top of PVC completion string	
DATUM ELEVATION:	7951.2	
Screened Interval Depth:	79	86
Screened Interval Elevation:	7872.2	7865.2
Hiawatha Seam Interval Depth:	76.9	85
Hiawatha Seam Interval Elevation:	7874.3	7866.2

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	No water encountered durring drilling.					
3/8/2006	Dry					
4/26/2006	Dry					
5/25/2006	Dry					
6/29/2006	Dry					
7/25/2006	Dry					
8/20/2006	Dry					
9/7/2006	Dry					
10/30/2006	Dry					
11/27/2006	Dry					
12/26/2006	97.4	7853.8				
1/31/2007	97.5	7853.7				
2/19/2007	97.4	7853.8				
3/29/2007	Dry					
4/25/2007	97.6	7853.6				
5/29/2007	97.4	7853.8				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	Dry					
8/26/2008	Dry					
10/29/2008	Dry					
6/23/2010	Dry					
9/28/2010	Dry					

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-01-BLW

DATUM :	Top of Fiberglass completion string	
DATUM ELEVATION:	7951.1	
Screened Interval Depth:	240	250
Screened Interval Elevation:	7711.1	7701.1
Hiawatha Seam Interval Depth:	76.9	85
Hiawatha Seam Interval Elevation:	7874.2	7866.1

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	Water was observed with a camera in the open hole at 210 feet and 215 feet.					
3/8/2006	Dry					
4/26/2006	241.2	7,709.9				
4/26/2006	263.3	7,687.8	Tagged apparent bottom of Blank			
5/25/2006	Dry					
6/29/2006	242.0	7,709.1				
7/19/2006	Dry					
8/20/2006	242.1	7,709.0				
9/7/2006	242.0	7,709.1				
10/30/2006	242.2	7,708.9				
11/27/2006	237.3	7,713.8				
12/26/2006	242.1	7,709.0				
1/31/2007	242.3	7,708.8				
2/19/2007	242.2	7,708.9				
3/29/2007	Dry					
4/25/2007	242.4	7,708.7				
5/29/2007	242.3	7,708.8				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	Dry					
8/26/2008	Dry					
10/29/2008	249.0	7,702.1	V Suspect			
6/23/2010	254.0	7,697.1			Tagged Bottom @ 264	
9/28/2010	254.0	7,697.1			Tagged Bottom @ 264	

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Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-02

DATUM :	Top of PVC completion string		
DATUM ELEVATION:		8338.6	
Screened Interval Depth:		429	437
Screened Interval Elevation:		7909.6	7901.6
Hiawatha Seam Interval Depth:		428	437
Hiawatha Seam Interval Elevation:		7910.6	7901.6

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	No water encountered durring drilling.					
3/8/2006	437.0	7901.6				
4/26/2006	437.1	7901.5				
5/25/2006	441.4	7897.2				
6/29/2006	438.3	7900.3				
7/19/2006	438.1	7900.5				
8/20/2006	438.4	7900.2				
9/7/2006	439.0	7899.6				
10/30/2006	437.6	7901.0				
11/27/2006	438.6	7900.0				
12/26/2006	439.3	7899.3				
1/31/2007	439.7	7898.9				
2/19/2007	439.9	7898.7				
3/29/2007	439.3	7899.3				
4/25/2007	439.9	7898.7				
5/29/2007	440.1	7898.5				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	442.2	7896.4				
8/26/2008	442.7	7895.9				
10/29/2008	442.7	7895.9				
6/23/2010	442.7	7895.9				
9/28/2010	442.7	7895.9				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-02-ABV

DATUM :	Top of PVC completion string	
DATUM ELEVATION:	8337.7	
Screened Interval Depth:	288	298
Screened Interval Elevation:	8049.8	8039.8
Hiawatha Seam Interval Depth:	428	437
Hiawatha Seam Interval Elevation:	7909.8	7900.8

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	No water encountered durring drilling.					
3/8/2006	302.8	8034.9				
4/26/2006	309.0	8028.7				
5/25/2006	Dry					
6/29/2006	307.2	8030.5				
7/19/2006	303.6	8034.1				
8/20/2006	301.7	8036.0				
9/7/2006	301.6	8036.1				
10/30/2006	301.7	8036.0				
11/27/2006	301.6	8036.1				
12/26/2006	301.6	8036.1				
1/31/2007	301.2	8036.5				
2/19/2007	301.8	8035.9				
3/29/2007	301.7	8036.0				
4/25/2007	301.8	8035.9				
5/29/2007	301.7	8036.0				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	301.6	8037.0				
8/26/2008	301.8	8036.8				
10/29/2008	301.8	8036.8				
6/23/2010	301.9	8036.7				
9/28/2010	301.9	8036.7				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-03-ABV

DATUM :	Top of Fiberglass completion string	
DATUM ELEVATION:	8,135.97	
Screened Interval Depth:	480	490
Screened Interval Elevation:	7656	7646
Hiawatha Seam Interval Depth:	647	654
Hiawatha Seam Interval Elevation:	7009	7002

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	Water encountered durring drilling at ~ 380 feet.					
	Higher flow of water durring drilling at ~450 feet.					
3/6/2006	Purged approximatly 600 gal of water.					
3/7/2006	Purged an additional 300 gal of water.					
4/26/2006	337.1	7798.9	6.92	5.7	425	26.6
5/25/2006	337.8	7798.2	7.28	1.3	599	28.3
6/29/2006	338.2	7797.8	7.23	2.2	689	21.8
7/31/2006	337.5	7798.5	6.87	1.1	549	23.9
8/20/2006	337.7	7798.3	6.99	1.1	245	25
9/7/2006	337.8	7798.2	>12	1.7	522	20.7
10/30/2006	not measured					
11/27/2006	not measured					
12/26/2006	not measured					
1/31/2007	not measured					
2/19/2007	not measured					
3/29/2007	not measured					
4/25/2007	not measured					
5/29/2007	not measured					
6/25/2007	not measured					
7/30/2007	not measured					

Discontinued Measuring

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-05A

DATUM :	Top of PVC completion string		
DATUM ELEVATION:		8798.9	
Screened Interval Depth:		1036	1051
Screened Interval Elevation:		7762.9	7747.9
Hiawatha Seam Interval Depth:		1037	1043
Hiawatha Seam Interval Elevation:		7761.9	7755.9

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
9/7/2006	1051.7	7747.2				
10/30/2006	1057.6	7741.3				
11/27/2006	not measured					
12/26/2006	1058.0	7740.9				
1/31/2007	1057.8	7741.1				
2/19/2007	1057.9	7741.0				
3/29/2007	1057.5	7741.4				
4/25/2007	1058.1	7740.8				
5/29/2007	1057.8	7741.1				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	1057.7	7741.2				
8/26/2008	1058.2	7740.7				
10/29/2008	1058.4	7740.5				
6/23/2010	1058.5	7740.4				
9/28/2010	1057.9	7741.0				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-09-BLW

DATUM :	Top of PVC completion string		
DATUM ELEVATION:		8842.9	
Screened Interval Depth:		1020	1040
Screened Interval Elevation:		7822.9	7802.9
Hiawatha Seam Interval Depth:		990	1001.5
Hiawatha Seam Interval Elevation:		7852.9	7841.4

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	Water appeared durring drilling at ~760 feet. After drilling deeper, appearant wl was ~800 feet. Durring geophysical logging wl was 935 feet.					
8/18/2006	989.5	7853.4	-	-	-	-
9/7/2006	990.5	7852.4				
10/30/2006	990.8	7852.1				
11/27/2006	not measured					
12/26/2006	991.0	7851.9				
1/31/2007	991.0	7851.9				
2/19/2007	990.3	7852.6				
3/29/2007	991.2	7851.7				
4/25/2007	990.8	7852.1				
5/29/2007	991.0	7851.9				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	991.4	7851.5				
8/26/2008	991.8	7851.1				
10/29/2008	992.2	7850.7				
6/23/2010	992.3	7850.6				
9/28/2010	992.3	7850.6				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-09

DATUM :	Top of PVC completion string		
DATUM ELEVATION:		8,843.30	
Screened Interval Depth:		989.5	1001.5
Screened Interval Elevation:		7853.8	7841.8
Hiawatha Seam Interval Depth:		992.2	>1002
Hiawatha Seam Interval Elevation:		7851.1	<7840.4

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
	Water encountered durring drilling at ~ 380 feet.					
	Higher flow of water durring drilling at ~450 feet.					
9/7/2006	982.0	7861.3				
10/30/2006	984.1	7859.2				
11/27/2006	not measured					
12/26/2006	982.4	7860.9				
1/31/2007	983.1	7860.2				
2/19/2007	983.3	7860.0				
3/29/2007	982.8	7860.5				
4/25/2007	982.9	7860.4				
5/29/2007	982.6	7860.7				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	982.1	7861.2				
8/26/2008	982.8	7860.5				
10/29/2008	983.2	7860.1				
6/23/2010	983.1	7859.8				
9/28/2010	983.1	7859.8				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-06-09-ABV

DATUM :	Top PVC of completion string		
DATUM ELEVATION:		8843.3	
Screened Interval Depth:		888	898
Screened Interval Elevation:		7955.3	7945.3
Hiawatha Seam Interval Depth:		992.2	>1002
Hiawatha Seam Interval Elevation:		7851.1	<7840.4

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
9/7/2006	Not developed - WL 3 days after instalation = 861.3					
10/30/2006	863.1	7980.2				
11/27/2006	not measured					
12/26/2006	863.9	7979.4				
1/31/2007	864.5	7978.8				
2/19/2007	864.1	7979.2				
3/29/2007	864.7	7978.6				
4/25/2007	866.1	7977.2				
5/29/2007	866.1	7977.2				
6/25/2007	not measured					
7/30/2007	not measured					
6/16/2008	867.3	7976.0				
8/26/2008	867.9	7975.4				
10/29/2008	867.8	7975.5				
6/23/2010	867.9	7975.0				
9/28/2010	868.5	7974.4				

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-10-11

DATUM :	Top 10" Steel Casing		
DATUM ELEVATION:		7656.67	
Screened Interval Depth:		60.1	70.1
Screened Interval Elevation:		7596.57	7586.57
Hiawatha Seam Interval Depth:		N/A	N/A
Hiawatha Seam Interval Elevation:		N/A	N/A

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
7/13/2010	Hole is ARTESIAN. Cuttings DRY down to 20 ft.					
7/14/2010	Developed for ~ 12 hours					
7/15/2010	10.4	7646.3	7.6		250*	11
8/31/2010	9.5	7647.2	7.02		300*	10
9/28/2010	9.5	7647.2	7.57		539	9.3

* Hardness from Colorometric Strips

Carbon Resources LLC

Kinney II Baseline Water Sampling

Ground Water Field Measurements

CR-10-12

DATUM :	Top of 10" Steel Casing		
DATUM ELEVATION:		7703.83	
Screened Interval Depth:		82.6	92.6
Screened Interval Elevation:		7621.23	7611.23
Hiawatha Seam Interval Depth:		N/A	N/A
Hiawatha Seam Interval Elevation:		N/A	N/A

Date	Static Water Level Depth from DATUM (ft)	Static Water Level Elevation (ft)	pH	Dissolved Oxygen (ppm)	Specific Conductivity (Us)	Temp (C)
7/10/2010	Hole is Artesian. First water detected during drilling ~90 ft.					
7/12/2010	Developed @~15gpm for ~ 20 hours					
7/14/2010	54.6	7649.2	7.8		250*	11
8/31/2010	53.1	7650.7	7.4		300*	10
9/28/2010	53.0	7650.8	7.62		588	8.9

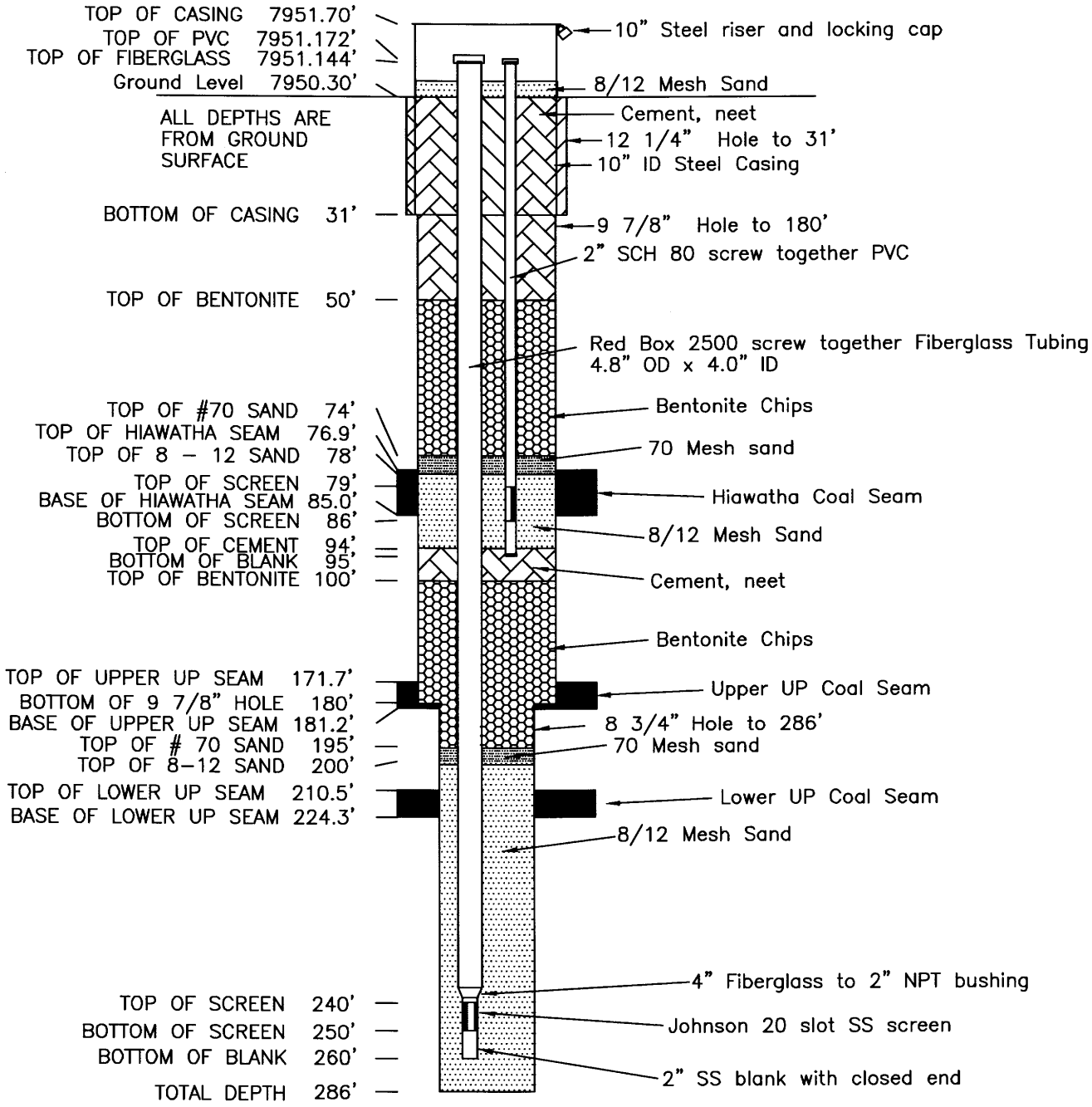
* Hardness from Colorometric Strips

Exhibit 11

Monitoring Well Completion Details

Monitor Well Completion Diagram
CR-06-01 AND CR-06-01-BLW

NOT TO SCALE



8000 ft Elevation Datum
E. 1739299.757
N. 7073837.862
Gounnd Surface, ELEV. 7950'

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-01 AND CR-06-01-BLW

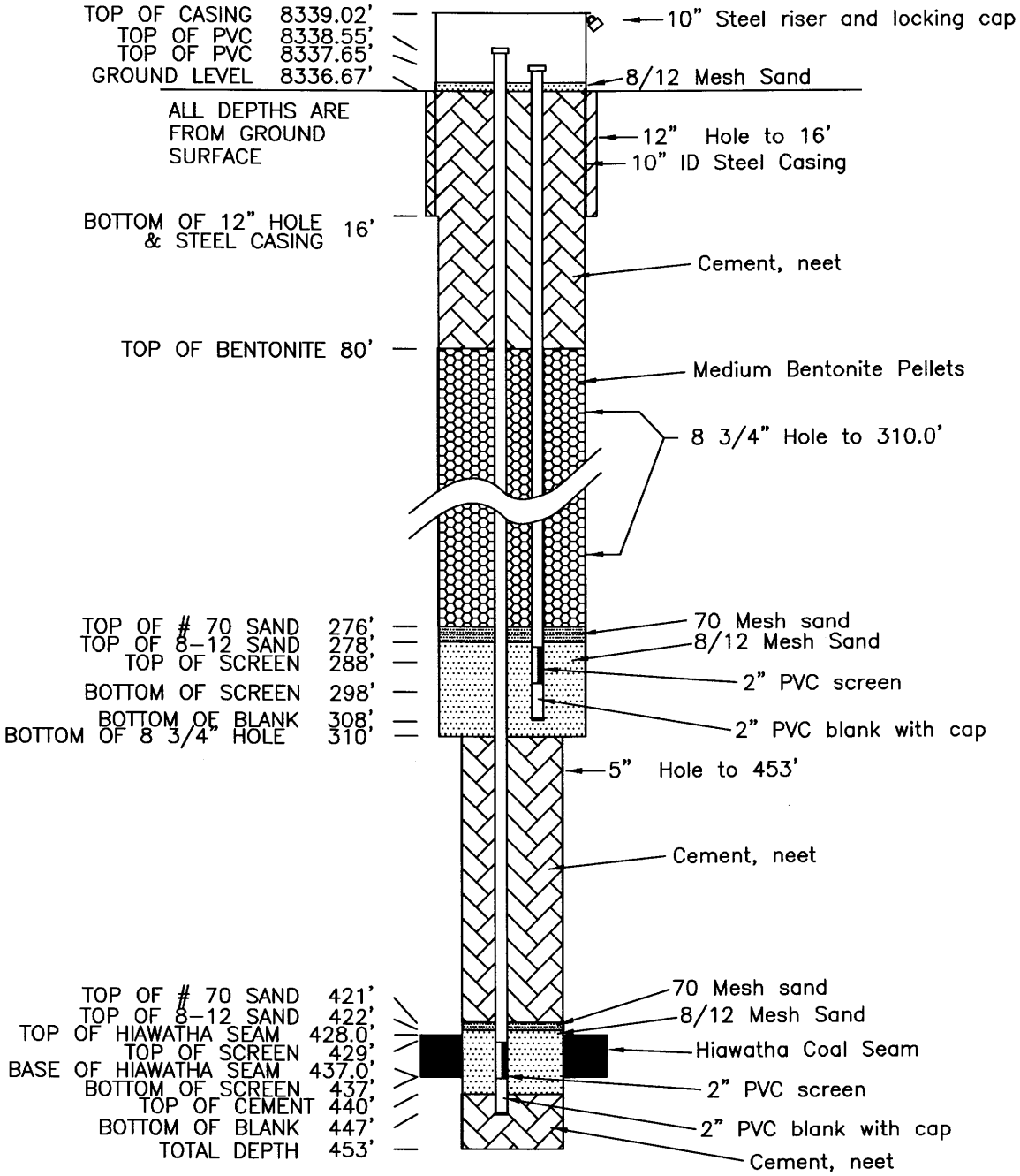
DWG	BWL
CKD	
APD	

DATE: 3/25/06

Drawing Loc: Drilling Phase 1\Completion Diagrams\CR-06-01 AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-02 AND CR-06-02-ABV

NOT TO SCALE



8000 ft Elevation Datum
E. 1739673.995
N. 7072672.439
Gounnd Surface, ELEV. 8337'

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-02 AND CR-06-02-ABV

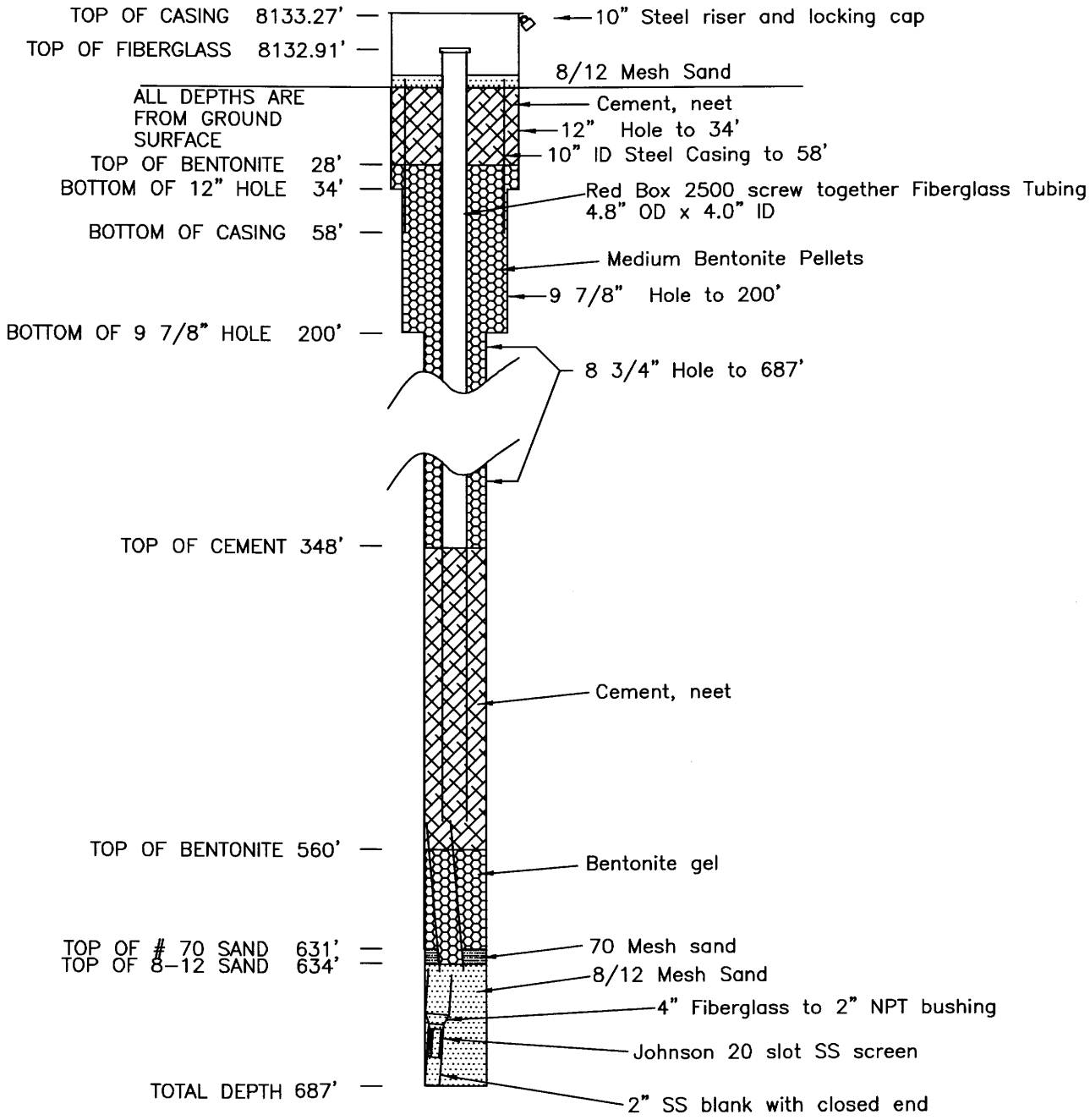
DWG	BWL
CKD	
APD	

DATE: 3/25/06

Drawing Loc: Drilling Phase 1\Completion Diagrams\CR-06-02 AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-03

NOT TO SCALE



8000 ft Elevation Datum
E. 1742245.129
N. 7076291.102
Gounnd Surface, ELEV. 8132

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-03

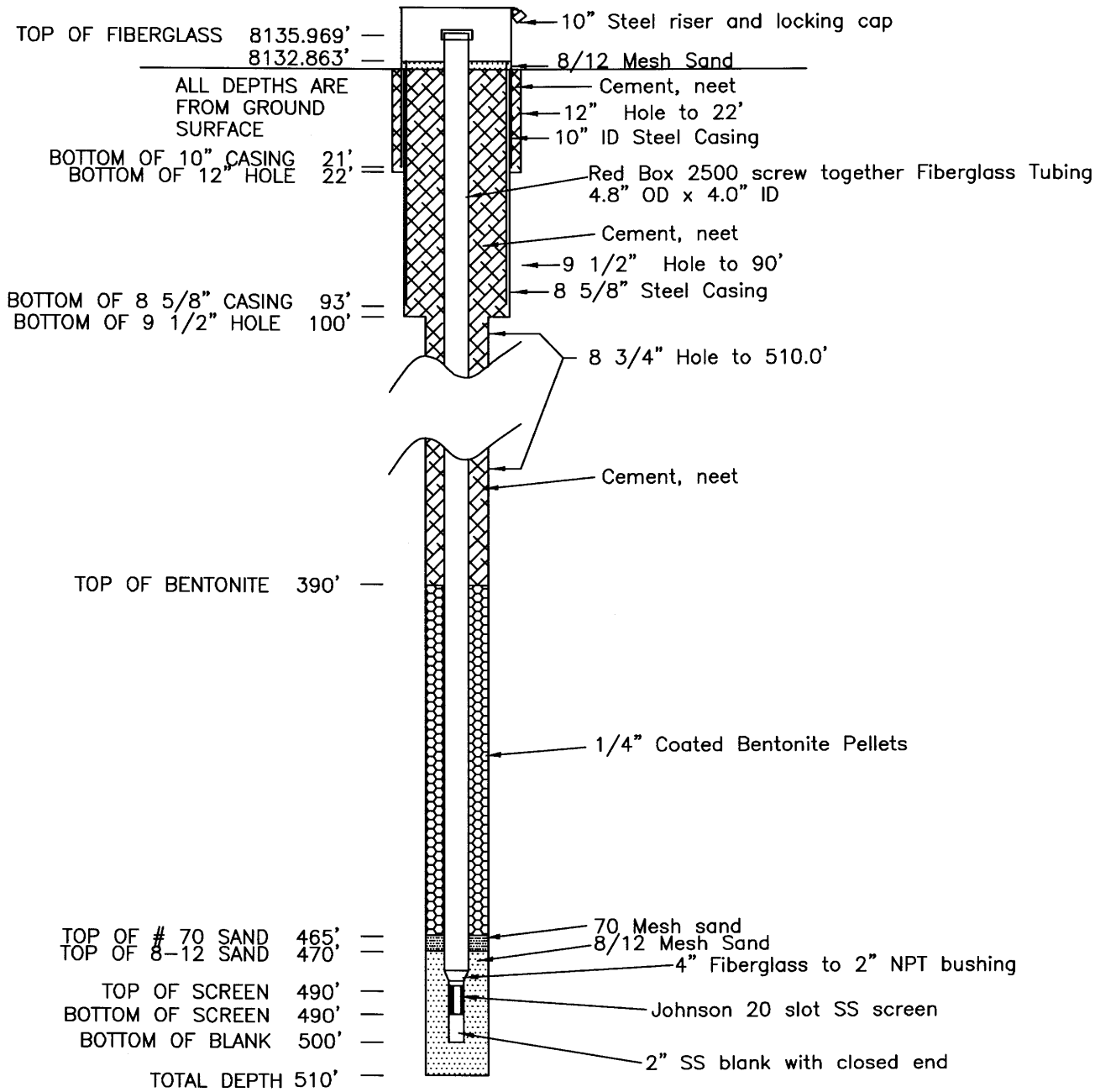
DWG	BWL
CKD	
APD	

DATE: 3/25/06

Drawing Loc: Drilling Phase 1\Completion Diagrams\CR-06-03 AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-03-ABV

NOT TO SCALE



8000 ft Elevation Datum
E. 1742345.531
N. 7076325.902
Gounnd Surface, ELEV. 8132

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-03-ABV

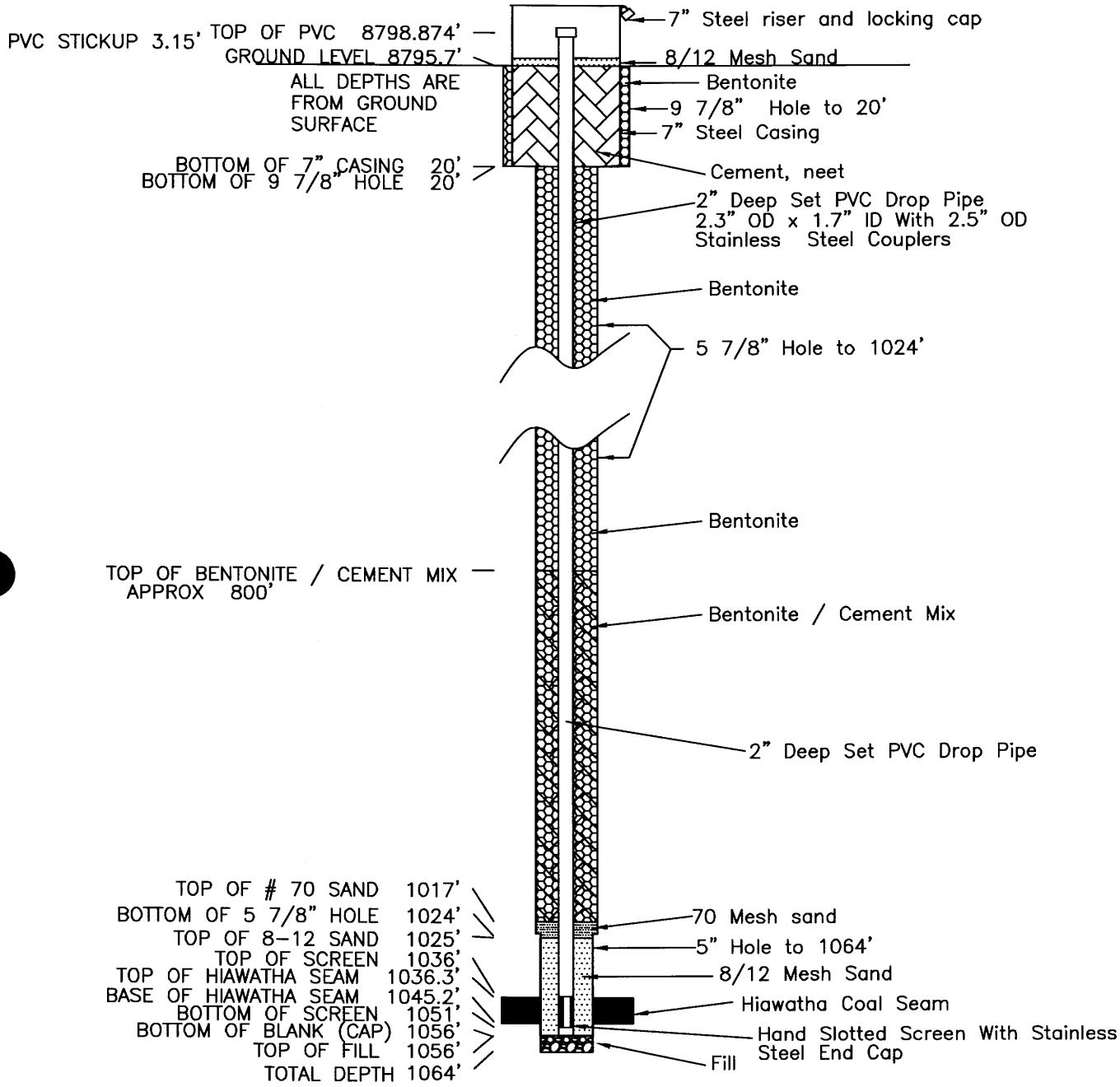
DWG	BWL
CKD	
APD	

DATE: 3/25/06

Drawing Loc: Drilling Phase 1\Completion Diagrams\CR-06-03-ABV AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-05-A

NOT TO SCALE



8000 ft Elevation Datum
E. 1740939.20397
N. 7069330.51296
Gounnd Surface, ELEV. 8795.7'

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-05-A

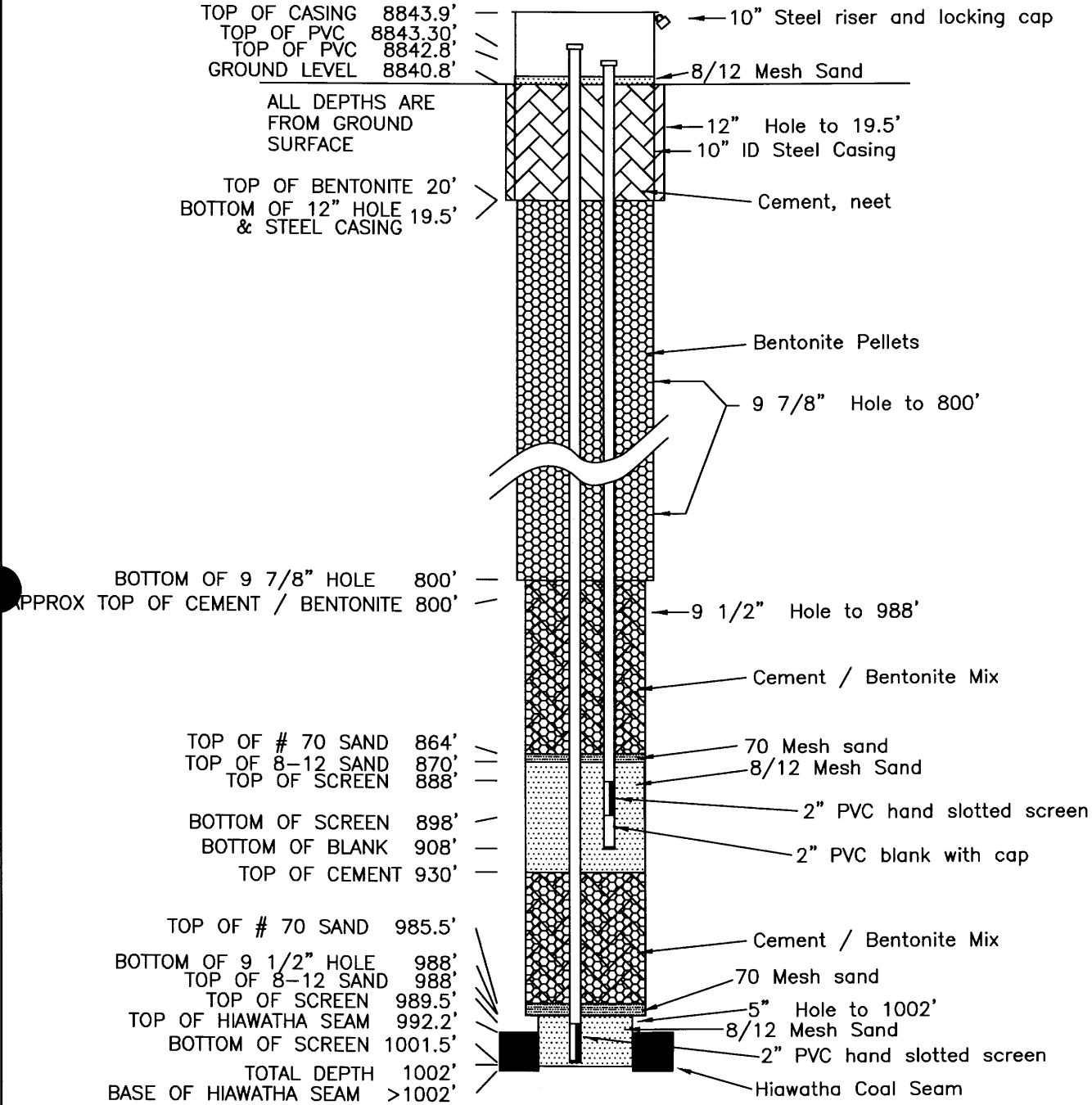
DWG	BWL
CKD	
APD	

DATE: 12/18/06

\Completion Diagrams\CR-06-05-A AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-09 AND CR-06-09-ABV

NOT TO SCALE



E. 1743857.5
N. 7073380.8
Gounnd Surface, ELEV. 8841'

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-09 AND CR-06-09-ABV

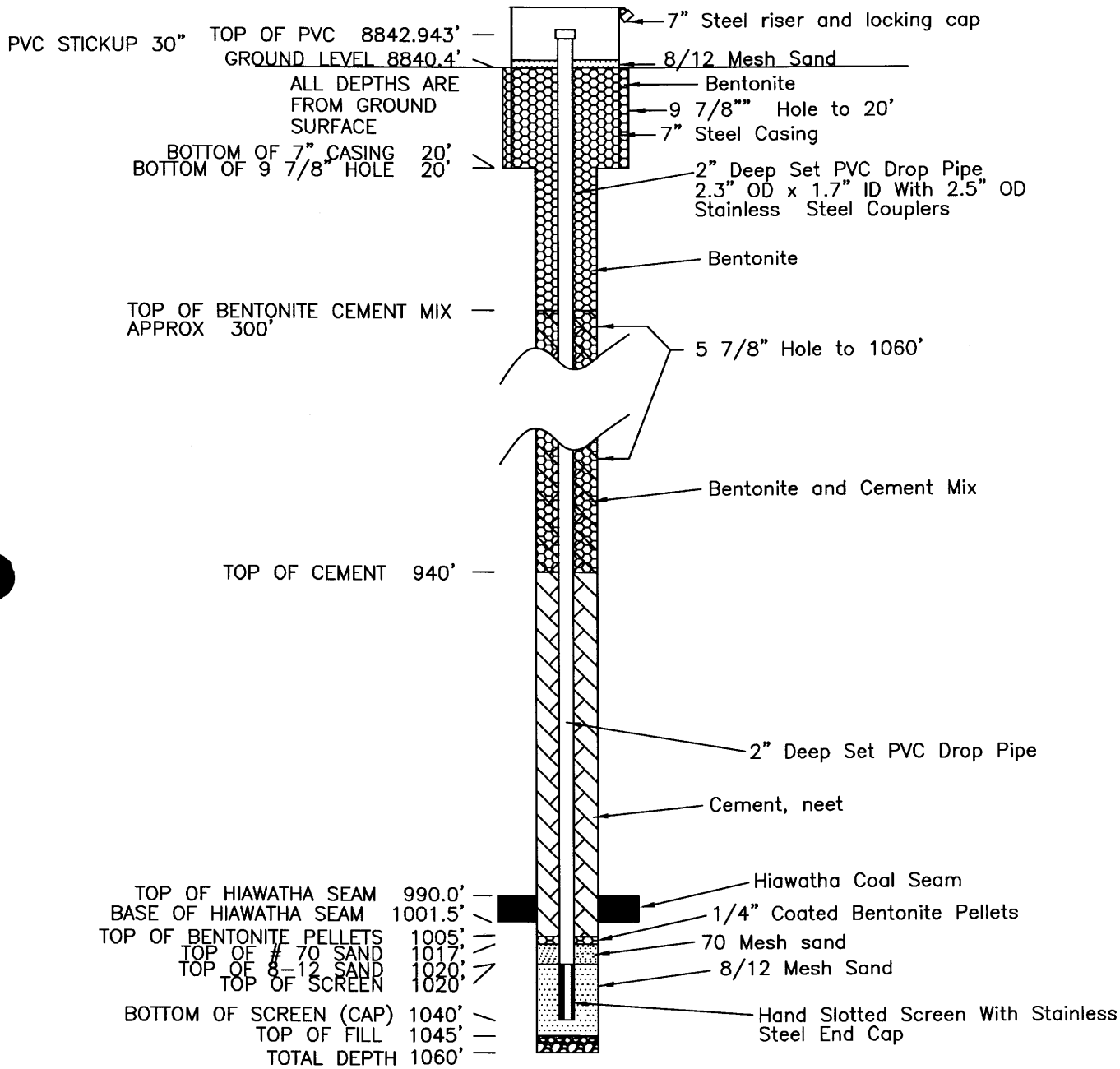
DWG	BWL
CKD	
APD	

DATE: 12/18/06

Drawing Loc: Drilling Phase 1\Completion Diagrams\CR-06-09 AS BUILT.dwg

Monitor Well Completion Diagram
CR-06-09-BLW

NOT TO SCALE



8000 ft Elevation Datum
E. 1743808.008
N. 7073416.824
Gounnd Surface, ELEV. 8840.4

Carbon Resources LLC
Monitor Well Completion Diagram
CR-06-09-BLW

DWG	BWL
CKD	
APD	

DATE: 9/8/06

\Completion Diagrams\CR-06-09-BLW AS BUILT.dwg

Monitor Well Completion Diagram

CR-10-11

NOT TO SCALE

SWL DATUM
ELEV. TOP OF 10" CASING 7,656.67
APPROX. GROUND SURFACE ELEV. 7,655.4

DEPTHS FROM TOP OF 10"
DEPTHS FROM GROUND SURFACE

BOTTOM OF 14" HOLE 7.5'
BOTTOM OF 10" CASING 8'
(Casing pushed into ground)

DRILLING PROCESS GENERALIZED:

Medium=air/foam 0-30 ft.
Bentonite Mud 30-83 ft.
Relatively easy drilling, to TD

DRY 0-20 ft.

Damp @ 20 ft.

Switched medium to Mud, made it hard to tell when in water zone.
Viscosity decreased over 2 hrs while circulating mud at 81 ft.; an indication of formation water.

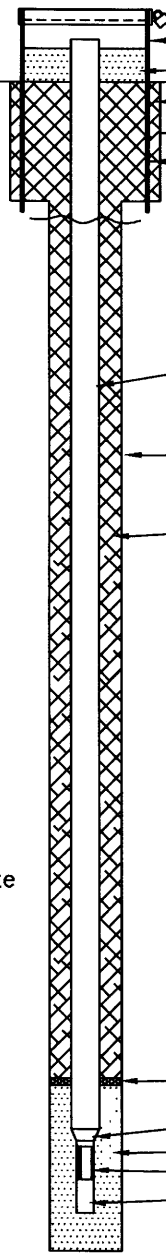
Measured flow by air jetting from 39 ft. @ ~2.3 gpm

Completion Materials;
3, 92.6 lb bags type I/II portland
6, 100lb. bags 16 mesh frac sand
~ 0.5 gallons of 1/4" coated bentonite
19, 92.6 lb bags type I/II portland

TOP OF COATED BENTONITE' 54.7'
TOP OF 16 Mesh SAND 55'

TOP OF SCREEN 60.1'
BOTTOM OF SCREEN 70.1'
BOTTOM OF BLANK 80.1'

TOTAL DEPTH DRILLED 83'



Locking Cap
10" Steel riser
16 Mesh Sand
Cement, Portland type I/II
14" Hole to 7' from Ground Surface
10" ID Steel Casing

Initial SWL 10.4 ft. @ 9:00, 7-15-10
Initial SWL Elev. 7,646.27

Red Box 2500 screw together Fiberglass Tubing 4.8" OD (4.0" ID)

8" Hole to TD

Cement, Portland type I/II

LITHOLOGY GENERALIZED:

0-10' Dk BN-BK A-horizion Top Soil

10-20'
~80% TN Lt-TN SS
~10% BN dk BN Iron-Rich hard SS
~10% MS-Claystone

20-30'
~40% BN dk BN Iron-Rich hard SS highly oxidized
~40% MS-Claystone, V-Stickey
~20% TN Lt-TN SS

30-80'
~80% TN Lt-TN SS
~15% BN dk BN Iron-Rich hard SS
~5% MS-Claystone

1/4" Coated Bentonite Pellets

4" Fiberglass to 2" NPT bushing (1 ft.)
16 Mesh Sand
10 ft. Johnson 20 slot 2" SS screen
10 ft. 2" SS blank with closed end

8000 ft (Local Elevation Convention)
E. 75,936.75
N. 38,622.95
APPROX. Ground Surface, ELEV. 7,655.4

This Survey is in Kinney Coordinate System (KCS). It was projected from State Plane NAD83 to a vertical datum of 8,000 ft. using a Combined Factor (CF) of 1.0047927. To project back, add 7,000,000 to Northing and 1,700,000 to Easting, then divide by the CF.

Drawing Loc:CR-Kinney\2010 Drilling\CR-10-11

Carbon Resources LLC

CR-10-11

Ground Water Monitor Well

DWG	GLH
CKD	
APD	

DATE: 7-16-10

Monitor Well Completion Diagram

CR-10-12

NOT TO SCALE

SWL DATUM
TOP OF 10" CASING 7,703.83
APPROX. ELEV. GROUND SURFACE 7,702.3

DEPTHS FROM TOP OF 10"
DEPTHS FROM GROUND SURFACE

BOTTOM OF 14" HOLE 7'
BOTTOM OF 10" CASING 8'
(Casing pushed into ground)

DRILLING PROCESS GENERALIZED:

Medum=air/foam
Relativley easy drilling to TD

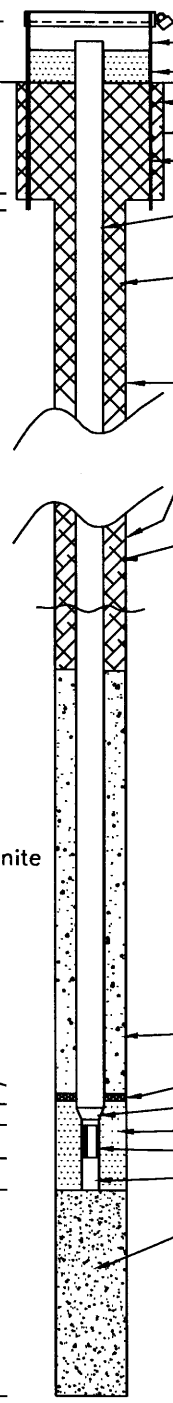
DRY 0-90 ft.
Damp @ 90 ft.
Water increasing to 103 ft.
then ~ same to 120ft.

Measured flow @ 20gpm by
air jetting from 106 ft.

Completion Materials;
2, 92.6 lb bags type I/II portland
20, 50lb. bags 8-12 round sand
25, 100lb. bags 16 mesh frac sand
1.5, 5 gal buckets 1/4" coated bentonite
17, 50 lb bags 3/8"bentonite chips
10.5, 92.6 lb bags type I/II portland

TOP OF COATED BENTONITE' 79.0'
TOP OF 16 Mesh SAND 80.0'
TOP OF SCREEN 82.6'
BOTTOM OF SCREEN 92.6'
BOTTOM OF BLANK 102.6'

TOTAL DEPTH DRILLED 120'



Locking Cap
10" Steel riser
16 Mesh Sand
Cement, Portland type I/II
14" Hole to 7' from Ground Surface
10" ID Steel Casing
Red Box 2500 screw together Fiberglass Tubing
4.8" OD x 4.0" ID
Cement, Portland type I/II
8" Hole to TD
Cement, Portland type I/II

Initial SWL 56.4 ft. @ 15:30 7-14-2010
Initial SWL ELEV: 7,649.24

LITHOLOGY GENERALIZED:

0-103' SS bi-model, w/
~40% tn clay/ms matrix
~20% dk bn rust f-mg ss
hard Fe-rich
~40% tn mg ss, soft

103-120' SS bi-model as above
but absent clay/ms matrix
poorly consolidated clasts

3/8" Bentonite Chips
1/4" Coated Bentonite Pellets
4" Fiberglass to 2" NPT bushing (1 ft.)
16 Mesh Sand
10 ft. Johnson 20 slot 2" SS screen
10 ft. 2" SS blank with closed end
Clean SS Clasts -1/4" Sloughed Into
Hole w/ 1,000 lbs 8/12 Mesh Sand

8000 ft (Local Elevation Convention)
E. 74,418.27
N. 38,084.79
Approx. Ground Surface, ELEV. 7,702.3

Surveyed in the Kinney Coordinate System (KCS). It was projected from State Plane NAD83 to a vertical datum of 8,000 ft. using a Combined Factor (CF) of 1.0047927. To project back, add 7,000,000 to Northing and 1,700,000 to Easting, then divide by the CF.

Carbon Resources LLC

CR-10-12

Ground Water Monitor Well

DWG	GLH
CKD	
APD	

DATE: 7-16-10

Drawing Location CR Kinney\Drilling2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Brad Lindsay
Carbon Resources
PO Box 544
Cedaredge, CO 81413
TEL: (970) 856-6788

RE: Scofield Baseline / Ground Water Monitoring

Dear Brad Lindsay: Lab Set ID: 1009511

American West Analytical Laboratories received 2 sample(s) on 9/29/2010 for the analyses presented in the following report.

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is certified by The NELAC Institute in Utah and Texas; and is state certified in Colorado and Idaho. Certification document is available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitaion limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by: _____
Laboratory Director or designee

RECEIVED
NOV 0 3 2010
DIV. OF OIL, GAS & MINING

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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e-mail: awal@awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-001
Client Sample ID: CR-10-12
Collection Date: 9/28/2010 1100h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1603h	SW6010C	0.100	**9.38**	[2]
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2101h	SW6020A	0.00120	**0.0961**	

[2] - *Analyte concentration is too high for accurate matrix spike recovery and/or RPD.*

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-002
Client Sample ID: CR-10-11
Collection Date: 9/28/2010 1415h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1614h	SW6010C	0.100	**0.815**	
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2142h	SW6020A	0.00120	**0.0162**	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-001
Client Sample ID: CR-10-12
Collection Date: 9/28/2010 1100h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.000600	< 0.000600	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1721h	SW6010C	10.0	**82.4**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.000800	< 0.000800	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	1.00	**7.38**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.00120	**0.00212**	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	1.00	**1.01**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1836h	SW6010C	1.00	**16.0**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2131h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-002
Client Sample ID: CR-10-11
Collection Date: 9/28/2010 1415h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.000600	< 0.000600	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1733h	SW6010C	10.0	**78.1**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.000800	< 0.000800	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	1.00	**11.0**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.00120	< 0.00120	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	1.00	**1.12**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.000800	**0.00119**	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1847h	SW6010C	1.00	**10.2**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2150h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Laboratory Director

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QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-001
Client Sample ID: CR-10-12
Collection Date: 9/28/2010 1100h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**177**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0845h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**177**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	10.0	< 10.0	
Chloride	mg/L		10/1/2010 1955h	E300.0	10.0	**27.2**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**236**	
Nitrate (as N)	mg/L		9/29/2010 1521h	E353.2	0.0100	**0.679**	1
Nitrite (as N)	mg/L		9/29/2010 1501h	E353.2	0.0100	**0.0237**	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1604h	E365.1	0.0500	**0.0720**	1
Sulfate	mg/L		10/10/2010 2113h	E300.0	750	**11,500**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**390**	

1 - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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INORGANIC ANALYTICAL REPORT

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Ground Water Monitoring
Lab Sample ID: 1009511-002
Client Sample ID: CR-10-11
Collection Date: 9/28/2010 1415h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**217**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0841h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**217**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	10.0	< 10.0	
Chloride	mg/L		10/1/2010 2104h	E300.0	10.0	**20.8**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**240**	
Nitrate (as N)	mg/L		9/29/2010 1525h	E353.2	0.100	**2.68**	
Nitrite (as N)	mg/L		9/29/2010 1514h	E353.2	0.0100	< 0.0100	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1610h	E365.1	0.0500	< 0.0500	
Sulfate	mg/L		10/10/2010 2136h	E300.0	750	**11,700**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**306**	

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Jose Rocha
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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: ME
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
LCS-8751	Aluminum	mg/L	SW6010C	0.950	1.000	0	95.0	80-120				10/6/2010
LCS-8751	Boron	mg/L	SW6010C	0.968	1.000	0	96.8	80-120				10/6/2010
LCS-8751	Calcium	mg/L	SW6010C	9.09	10.00	0	90.9	80-120				10/6/2010
LCS-8751	Iron	mg/L	SW6010C	0.945	1.000	0	94.5	80-120				10/6/2010
LCS-8751	Magnesium	mg/L	SW6010C	9.39	10.00	0	93.9	80-120				10/6/2010
LCS-8751	Molybdenum	mg/L	SW6010C	0.183	0.2000	0	91.4	80-120				10/6/2010
LCS-8751	Potassium	mg/L	SW6010C	9.71	10.00	0	97.1	80-120				10/6/2010
LCS-8751	Sodium	mg/L	SW6010C	9.44	10.00	0	94.4	80-120				10/6/2010
LCS-8752	Iron	mg/L	SW6010C	1.06	1.000	0	106	80-120				10/5/2010
LCS-8751	Arsenic	mg/L	SW6020A	0.200	0.2000	0	100	85-115				10/1/2010
LCS-8751	Cadmium	mg/L	SW6020A	0.200	0.2000	0	99.9	85-115				10/1/2010
LCS-8751	Copper	mg/L	SW6020A	0.201	0.2000	0	101	85-115				10/1/2010
LCS-8751	Lead	mg/L	SW6020A	0.200	0.2000	0	100	85-115				10/1/2010
LCS-8751	Manganese	mg/L	SW6020A	0.202	0.2000	0	101	85-115				10/1/2010
LCS-8751	Selenium	mg/L	SW6020A	0.204	0.2000	0	102	85-115				10/1/2010
LCS-8751	Zinc	mg/L	SW6020A	1.01	1.000	0	101	85-115				10/1/2010
LCS-8752	Arsenic	mg/L	SW6020A	0.200	0.2000	0	99.9	85-115				9/30/2010
LCS-8752	Cadmium	mg/L	SW6020A	0.199	0.2000	0	99.7	85-115				9/30/2010
LCS-8752	Copper	mg/L	SW6020A	0.201	0.2000	0	100	85-115				9/30/2010
LCS-8752	Lead	mg/L	SW6020A	0.200	0.2000	0	100	85-115				9/30/2010
LCS-8752	Manganese	mg/L	SW6020A	0.200	0.2000	0	99.8	85-115				9/30/2010
LCS-8752	Selenium	mg/L	SW6020A	0.202	0.2000	0	101	85-115				9/30/2010
LCS-8752	Zinc	mg/L	SW6020A	1.01	1.000	0	101	85-115				9/30/2010

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: ME
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
MB-8751	Aluminum	mg/L	SW6010C	< 0.100				-				10/6/2010
MB-8751	Boron	mg/L	SW6010C	< 0.500				-				10/6/2010
MB-8751	Calcium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Iron	mg/L	SW6010C	< 0.100				-				10/6/2010
MB-8751	Magnesium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Molybdenum	mg/L	SW6010C	< 0.0200				-				10/6/2010
MB-8751	Potassium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Sodium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8752	Iron	mg/L	SW6010C	< 0.100				-				10/5/2010
MB-8751	Arsenic	mg/L	SW6020A	< 0.000600				-				10/1/2010
MB-8751	Cadmium	mg/L	SW6020A	< 0.000180				-				10/1/2010
MB-8751	Copper	mg/L	SW6020A	< 0.000800				-				10/1/2010
MB-8751	Lead	mg/L	SW6020A	< 0.000400				-				10/1/2010
MB-8751	Manganese	mg/L	SW6020A	< 0.00120				-				10/1/2010
MB-8751	Selenium	mg/L	SW6020A	< 0.000800				-				10/1/2010
MB-8751	Zinc	mg/L	SW6020A	< 0.00500				-				10/1/2010
MB-8752	Arsenic	mg/L	SW6020A	< 0.000600				-				9/30/2010
MB-8752	Cadmium	mg/L	SW6020A	< 0.000180				-				9/30/2010
MB-8752	Copper	mg/L	SW6020A	< 0.000800				-				9/30/2010
MB-8752	Lead	mg/L	SW6020A	< 0.000400				-				9/30/2010
MB-8752	Manganese	mg/L	SW6020A	< 0.00120				-				9/30/2010
MB-8752	Selenium	mg/L	SW6020A	< 0.000800				-				9/30/2010
MB-8752	Zinc	mg/L	SW6020A	< 0.00500				-				9/30/2010

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511 **Dept:** ME
Project: Scofield Baseline / Ground Water Monitoring **QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMS	Aluminum	mg/L	SW6010C	0.986	1.000	0	98.6	75-125				10/6/2010
1009508-001EMS	Boron	mg/L	SW6010C	1.23	1.000	0.1526	108	75-125				10/6/2010
1009508-001EMS	Iron	mg/L	SW6010C	0.998	1.000	0	99.8	75-125				10/6/2010
1009508-001EMS	Magnesium	mg/L	SW6010C	42.0	10.00	33.17	88.2	75-125				10/6/2010
1009508-001EMS	Molybdenum	mg/L	SW6010C	0.195	0.2000	0	97.3	75-125				10/6/2010
1009508-001EMS	Potassium	mg/L	SW6010C	16.4	10.00	6.373	100	75-125				10/6/2010
1009511-001DMS	Aluminum	mg/L	SW6010C	0.866	1.000	0	86.6	75-125				10/6/2010
1009511-001DMS	Boron	mg/L	SW6010C	0.955	1.000	0.01937	93.6	75-125				10/6/2010
1009511-001DMS	Iron	mg/L	SW6010C	0.875	1.000	0	87.5	75-125				10/6/2010
1009511-001DMS	Magnesium	mg/L	SW6010C	15.9	10.00	7.380	84.8	75-125				10/6/2010
1009511-001DMS	Molybdenum	mg/L	SW6010C	0.169	0.2000	0	84.7	75-125				10/6/2010
1009511-001DMS	Potassium	mg/L	SW6010C	9.77	10.00	1.011	87.6	75-125				10/6/2010
1009511-001DMS	Sodium	mg/L	SW6010C	24.4	10.00	16.03	83.3	75-125				10/6/2010
1009508-001EMS	Calcium	mg/L	SW6010C	63.1	10.00	53.40	96.9	75-125				10/6/2010
1009508-001EMS	Sodium	mg/L	SW6010C	53.5	10.00	43.17	103	75-125				10/6/2010
1009511-001DMS	Calcium	mg/L	SW6010C	91.4	10.00	82.42	89.4	75-125				10/6/2010
1009508-001FMS	Iron	mg/L	SW6010C	1.27	1.000	0.2070	106	75-125				10/5/2010
1009511-001EMS	Iron	mg/L	SW6010C	10.8	1.000	9.380	142	75-125			2	10/5/2010
1009508-001EMS	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004450	100	75-125				10/1/2010
1009508-001EMS	Cadmium	mg/L	SW6020A	0.200	0.2000	0	100	75-125				10/1/2010
1009508-001EMS	Copper	mg/L	SW6020A	0.195	0.2000	0	97.5	75-125				10/1/2010
1009508-001EMS	Lead	mg/L	SW6020A	0.203	0.2000	0	101	75-125				10/1/2010
1009508-001EMS	Manganese	mg/L	SW6020A	0.206	0.2000	0.006622	99.7	75-125				10/1/2010
1009508-001EMS	Selenium	mg/L	SW6020A	0.202	0.2000	0.0005100	101	75-125				10/1/2010

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: ME
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMS	Zinc	mg/L	SW6020A	1.01	1.000	0	101	75-125				10/1/2010
1009511-001DMS	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004980	100	75-125				10/1/2010
1009511-001DMS	Cadmium	mg/L	SW6020A	0.197	0.2000	0.00008100	98.5	75-125				10/1/2010
1009511-001DMS	Copper	mg/L	SW6020A	0.201	0.2000	0.0004650	100	75-125				10/1/2010
1009511-001DMS	Lead	mg/L	SW6020A	0.201	0.2000	0	100	75-125				10/1/2010
1009511-001DMS	Manganese	mg/L	SW6020A	0.204	0.2000	0.002118	101	75-125				10/1/2010
1009511-001DMS	Selenium	mg/L	SW6020A	0.201	0.2000	0.0006810	100	75-125				10/1/2010
1009511-001DMS	Zinc	mg/L	SW6020A	0.990	1.000	0	99.0	75-125				10/1/2010
1009522-001BMS	Manganese	mg/L	SW6020A	0.223	0.2000	0.02429	99.4	75-125				10/1/2010
1009508-001FMS	Manganese	mg/L	SW6020A	0.220	0.2000	0.02004	99.9	75-125				9/30/2010
1009511-001EMS	Manganese	mg/L	SW6020A	0.297	0.2000	0.09608	101	75-125				9/30/2010
1009533-001FMS	Arsenic	mg/L	SW6020A	0.287	0.2000	0.09053	98.2	75-125				9/30/2010
1009533-001FMS	Cadmium	mg/L	SW6020A	0.195	0.2000	0.0002780	97.4	75-125				9/30/2010
1009533-001FMS	Copper	mg/L	SW6020A	0.203	0.2000	0.002522	100	75-125				9/30/2010
1009533-001FMS	Lead	mg/L	SW6020A	0.200	0.2000	0	100	75-125				9/30/2010
1009533-001FMS	Manganese	mg/L	SW6020A	1.81	0.2000	1.663	74.6	75-125			2	9/30/2010
1009533-001FMS	Selenium	mg/L	SW6020A	0.210	0.2000	0.007680	101	75-125				9/30/2010
1009533-001FMS	Zinc	mg/L	SW6020A	1.04	1.000	0.02531	101	75-125				9/30/2010

2 - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: ME
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMSD	Aluminum	mg/L	SW6010C	0.970	1.000	0	97.0	75-125	1.67	20		10/6/2010
1009508-001EMSD	Boron	mg/L	SW6010C	1.22	1.000	0.1526	107	75-125	1.08	20		10/6/2010
1009508-001EMSD	Iron	mg/L	SW6010C	0.962	1.000	0	96.2	75-125	3.61	20		10/6/2010
1009508-001EMSD	Magnesium	mg/L	SW6010C	40.8	10.00	33.17	75.8	75-125	3.00	20		10/6/2010
1009508-001EMSD	Molybdenum	mg/L	SW6010C	0.193	0.2000	0	96.3	75-125	1.09	20		10/6/2010
1009508-001EMSD	Potassium	mg/L	SW6010C	15.9	10.00	6.373	95.7	75-125	2.86	20		10/6/2010
1009511-001DMSD	Aluminum	mg/L	SW6010C	0.969	1.000	0	96.9	75-125	11.2	20		10/6/2010
1009511-001DMSD	Boron	mg/L	SW6010C	1.06	1.000	0.01937	104	75-125	10.8	20		10/6/2010
1009511-001DMSD	Iron	mg/L	SW6010C	0.944	1.000	0	94.4	75-125	7.62	20		10/6/2010
1009511-001DMSD	Magnesium	mg/L	SW6010C	16.6	10.00	7.380	92.4	75-125	4.64	20		10/6/2010
1009511-001DMSD	Molybdenum	mg/L	SW6010C	0.188	0.2000	0	94.0	75-125	10.4	20		10/6/2010
1009511-001DMSD	Potassium	mg/L	SW6010C	10.7	10.00	1.011	96.7	75-125	8.90	20		10/6/2010
1009511-001DMSD	Sodium	mg/L	SW6010C	25.0	10.00	16.03	89.5	75-125	2.51	20		10/6/2010
1009508-001EMSD	Calcium	mg/L	SW6010C	65.4	10.00	53.40	121	75-125	3.67	20		10/6/2010
1009508-001EMSD	Sodium	mg/L	SW6010C	54.9	10.00	43.17	117	75-125	2.59	20		10/6/2010
1009511-001DMSD	Calcium	mg/L	SW6010C	92.0	10.00	82.42	96.0	75-125	0.711	20		10/6/2010
1009508-001FMSD	Iron	mg/L	SW6010C	1.30	1.000	0.2070	109	75-125	2.33	20		10/5/2010
1009511-001EMSD	Iron	mg/L	SW6010C	10.9	1.000	9.380	152	75-125	0.922	20	2	10/5/2010
1009508-001EMSD	Arsenic	mg/L	SW6020A	0.202	0.2000	0.0004450	101	75-125	0.144	20		10/1/2010
1009508-001EMSD	Cadmium	mg/L	SW6020A	0.200	0.2000	0	100	75-125	0.00600	20		10/1/2010
1009508-001EMSD	Copper	mg/L	SW6020A	0.196	0.2000	0	98.0	75-125	0.554	20		10/1/2010
1009508-001EMSD	Lead	mg/L	SW6020A	0.201	0.2000	0	101	75-125	0.801	20		10/1/2010
1009508-001EMSD	Manganese	mg/L	SW6020A	0.203	0.2000	0.006622	98.3	75-125	1.38	20		10/1/2010
1009508-001EMSD	Selenium	mg/L	SW6020A	0.200	0.2000	0.0005100	99.9	75-125	0.657	20		10/1/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: ME
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMSD	Zinc	mg/L	SW6020A	1.00	1.000	0	100	75-125	0.326	20		10/1/2010
1009522-001BMSD	Manganese	mg/L	SW6020A	0.223	0.2000	0.02429	99.5	75-125	0.0699	20		10/1/2010
1009511-001DMSD	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004980	100	75-125	0.195	20		10/1/2010
1009511-001DMSD	Cadmium	mg/L	SW6020A	0.198	0.2000	0.00008100	99.2	75-125	0.700	20		10/1/2010
1009511-001DMSD	Copper	mg/L	SW6020A	0.201	0.2000	0.0004650	100	75-125	0.0911	20		10/1/2010
1009511-001DMSD	Lead	mg/L	SW6020A	0.200	0.2000	0	99.9	75-125	0.462	20		10/1/2010
1009511-001DMSD	Manganese	mg/L	SW6020A	0.205	0.2000	0.002118	101	75-125	0.380	20		10/1/2010
1009511-001DMSD	Selenium	mg/L	SW6020A	0.202	0.2000	0.0006810	100	75-125	0.388	20		10/1/2010
1009511-001DMSD	Zinc	mg/L	SW6020A	0.987	1.000	0	98.7	75-125	0.281	20		10/1/2010
1009508-001FMSD	Manganese	mg/L	SW6020A	0.222	0.2000	0.02004	101	75-125	0.954	20		9/30/2010
1009511-001EMSD	Manganese	mg/L	SW6020A	0.298	0.2000	0.09608	101	75-125	0.0988	20		9/30/2010
1009533-001FMSD	Arsenic	mg/L	SW6020A	0.288	0.2000	0.09053	98.8	75-125	0.381	20		9/30/2010
1009533-001FMSD	Cadmium	mg/L	SW6020A	0.194	0.2000	0.0002780	96.8	75-125	0.549	20		9/30/2010
1009533-001FMSD	Copper	mg/L	SW6020A	0.203	0.2000	0.002522	100	75-125	0.0113	20		9/30/2010
1009533-001FMSD	Lead	mg/L	SW6020A	0.200	0.2000	0	100	75-125	0.00150	20		9/30/2010
1009533-001FMSD	Manganese	mg/L	SW6020A	1.76	0.2000	1.663	49.1	75-125	2.86	20	2	9/30/2010
1009533-001FMSD	Selenium	mg/L	SW6020A	0.211	0.2000	0.007680	101	75-125	0.299	20		9/30/2010
1009533-001FMSD	Zinc	mg/L	SW6020A	1.03	1.000	0.02531	101	75-125	0.706	20		9/30/2010

2 - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: DUP

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001ADUP	Total Dissolved Solids	mg/L	A2540C	404		412.0		-	1.96	5		10/1/2010
1009511-001ADUP	Total Dissolved Solids	mg/L	A2540C	394		390.0		-	1.02	5		10/1/2010
1009533-001HDUP	Total Dissolved Solids	mg/L	A2540C	1,140		1,132		-	1.05	5		10/1/2010

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
LCS-R19058	Chloride	mg/L	E300.0	4.54	5.000	0	90.7	90-110				10/1/2010
LCS-R19058	Sulfate	mg/L	E300.0	4.87	5.000	0	97.4	90-110				10/1/2010
LCS-R19235	Sulfate	mg/L	E300.0	5.46	5.000	0	109	90-110				10/10/2010
LCS-R18965	Acidity	mg/L	A2310B	48.0	50.00	0	96.0	80-120				9/30/2010
LCS-R18966	Alkalinity (as CaCO3)	mg/L	A2320B	51,600	50,000	0	103	90-110				9/30/2010
LCS-8769	Ammonia (as N)	mg/L	E350.1	1.09	1.000	0	109	90-110				10/4/2010
LCS-R18919	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.962	1.000	0.005800	95.6	90-110				9/29/2010
LCS-R19081	Total Dissolved Solids	mg/L	A2540C	192	205.0	0	93.7	80-120				10/1/2010

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
MB-R19058	Chloride	mg/L	E300.0	< 0.100				-				10/1/2010
MB-R19058	Sulfate	mg/L	E300.0	< 0.750				-				10/1/2010
MB-R19235	Sulfate	mg/L	E300.0	< 0.750				-				10/10/2010
MB-R18965	Acidity	mg/L	A2310B	< 15.0				-				9/30/2010
MB-R18966	Alkalinity (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-R18966	Bicarbonate (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-R18966	Carbonate (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-8769	Ammonia (as N)	mg/L	E350.1	< 0.0500				-				10/4/2010
MB-R18919	Phosphate, Total Ortho (as P)	mg/L	E365.1	< 0.0500				-				9/29/2010
MB-R19081	Total Dissolved Solids	mg/L	A2540C	< 10.0				-				10/1/2010

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009507-005CMS	Sulfate	mg/L	E300.0	6.91	5.000	1.929	99.6	90-110				10/1/2010
1009508-004BMS	Chloride	mg/L	E300.0	55.7	50.00	10.05	91.4	90-110				10/1/2010
1009508-004BMS	Sulfate	mg/L	E300.0	73.0	50.00	23.46	99.0	90-110				10/1/2010
1009511-001BMS	Chloride	mg/L	E300.0	480	500.0	0	96.0	90-110				10/1/2010
1009522-001AMS	Chloride	mg/L	E300.0	65.6	25.00	39.76	103	90-110				10/1/2010
1009522-001AMS	Sulfate	mg/L	E300.0	36.1	25.00	11.88	96.8	90-110				10/1/2010
1009533-001DMS	Chloride	mg/L	E300.0	140	50.00	86.55	106	90-110				10/2/2010
1009533-001DMS	Sulfate	mg/L	E300.0	185	50.00	133.8	102	90-110				10/2/2010
1009511-002BMS	Sulfate	mg/L	E300.0	17,100	5,000	11,710	109	90-110				10/10/2010
1009508-005BMS	Acidity	mg/L	A2310B	46.0	50.00	0	92.0	80-120				9/30/2010
1009511-001BMS	Acidity	mg/L	A2310B	52.0	50.00	0	104	80-120				9/30/2010
1009508-001BMS	Alkalinity (as CaCO3)	mg/L	A2320B	338	100.0	238.0	100	80-120				9/30/2010
1009511-001BMS	Alkalinity (as CaCO3)	mg/L	A2320B	280	100.0	177.0	103	80-120				9/30/2010
1009522-001AMS	Alkalinity (as CaCO3)	mg/L	A2320B	1,570	500.0	1,059	101	80-120				9/30/2010
1009533-001DMS	Alkalinity (as CaCO3)	mg/L	A2320B	1,430	500.0	893.0	107	80-120				9/30/2010
1009508-001DMS	Ammonia (as N)	mg/L	E350.1	1.03	1.000	0	103	90-110				10/4/2010
1009511-002CMS	Ammonia (as N)	mg/L	E350.1	1.00	1.000	0	100	90-110				10/4/2010
1009533-001EMS	Ammonia (as N)	mg/L	E350.1	1.08	1.000	0.3142	76.9	90-110			1	10/4/2010
1009508-001BMS	Nitrite (as N)	mg/L	E353.2	1.09	1.000	0	109	90-110				9/29/2010
1009511-001BMS	Nitrite (as N)	mg/L	E353.2	1.10	1.000	0.02370	108	90-110				9/29/2010
1009508-001BMS	Nitrate (as N)	mg/L	E353.2	1.13	1.000	0.009300	112	90-110			1	9/29/2010
1009507-005CMS	Nitrate (as N)	mg/L	E353.2	0.790	1.000	0	79.0	90-110			1	9/29/2010
1009511-001BMS	Nitrate (as N)	mg/L	E353.2	18.4	10.00	0.6793	177	90-110			1	9/29/2010
1009508-001BMS	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.919	1.000	0.03440	88.5	90-110			1	9/29/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009511-001BMS	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.924	1.000	0.07200	85.2	90-110			[1]	9/29/2010

[1] - *Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.*

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511 **Dept:** WC
Project: Scofield Baseline / Ground Water Monitoring **QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009507-005CMSD	Sulfate	mg/L	E300.0	6.86	5.000	1.929	98.5	90-110	0.799	20		10/1/2010
1009508-004BMSD	Chloride	mg/L	E300.0	55.4	50.00	10.05	90.7	90-110	0.569	20		10/1/2010
1009508-004BMSD	Sulfate	mg/L	E300.0	72.8	50.00	23.46	98.6	90-110	0.268	20		10/1/2010
1009511-001BMSD	Chloride	mg/L	E300.0	478	500.0	0	95.6	90-110	0.394	20		10/1/2010
1009522-001AMSD	Chloride	mg/L	E300.0	65.1	25.00	39.76	101	90-110	0.747	20		10/1/2010
1009522-001AMSD	Sulfate	mg/L	E300.0	35.5	25.00	11.88	94.6	90-110	1.53	20		10/1/2010
1009533-001DMSD	Chloride	mg/L	E300.0	140	50.00	86.55	107	90-110	0.233	20		10/2/2010
1009533-001DMSD	Sulfate	mg/L	E300.0	185	50.00	133.8	103	90-110	0.228	20		10/2/2010
1009511-002BMSD	Sulfate	mg/L	E300.0	17,200	5,000	11,710	109	90-110	0.221	20		10/10/2010
1009508-005BMSD	Acidity	mg/L	A2310B	50.0	50.00	0	100	80-120	8.33	0		9/30/2010
1009511-001BMSD	Acidity	mg/L	A2310B	52.0	50.00	0	104	80-120	0	0		9/30/2010
1009508-001BMSD	Alkalinity (as CaCO3)	mg/L	A2320B	340	100.0	238.0	102	80-120	0.590	10		9/30/2010
1009511-001BMSD	Alkalinity (as CaCO3)	mg/L	A2320B	284	100.0	177.0	107	80-120	1.42	10		9/30/2010
1009522-001AMSD	Alkalinity (as CaCO3)	mg/L	A2320B	1,580	500.0	1,059	105	80-120	1.14	10		9/30/2010
1009533-001DMSD	Alkalinity (as CaCO3)	mg/L	A2320B	1,400	500.0	893.0	101	80-120	1.84	10		9/30/2010
1009508-001DMSD	Ammonia (as N)	mg/L	E350.1	1.06	1.000	0	106	90-110	3.06	10		10/4/2010
1009511-002CMSD	Ammonia (as N)	mg/L	E350.1	1.01	1.000	0	101	90-110	0.259	10		10/4/2010
1009533-001EMSD	Ammonia (as N)	mg/L	E350.1	1.19	1.000	0.3142	87.9	90-110	9.67	10	1	10/4/2010
1009508-001BMSD	Nitrite (as N)	mg/L	E353.2	1.10	1.000	0	110	90-110	1.11	10	1	9/29/2010
1009511-001BMSD	Nitrite (as N)	mg/L	E353.2	1.11	1.000	0.02370	109	90-110	0.929	10		9/29/2010
1009508-001BMSD	Nitrate (as N)	mg/L	E353.2	1.13	1.000	0.009300	112	90-110	0.222	10	1	9/29/2010
1009507-005CMSD	Nitrate (as N)	mg/L	E353.2	0.788	1.000	0	78.8	90-110	0.254	10	1	9/29/2010
1009511-001BMSD	Nitrate (as N)	mg/L	E353.2	17.0	10.00	0.6793	163	90-110	7.86	10	1	9/29/2010
1009508-001BMSD	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.955	1.000	0.03440	92.0	90-110	3.81	10		9/29/2010

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009511
Project: Scofield Baseline / Ground Water Monitoring

Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009511-001BMSD	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.994	1.000	0.07200	92.2	90-110	7.33	10		9/29/2010

[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

American West Analytical Laboratories

WORK ORDER Summary

Work Order: **1009511**

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Ground Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

9/29/2010
WO Type: Project

HCO3 HOK DB

el

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009511-001A	CR-10-12	9/28/2010 11:00:00 AM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	TDS-W-2540C	☐	ww - tds	1
1009511-001B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009511-001C				10/13/2010		NH3-W-350.1	☐	df / nh3	
				10/13/2010		NH3-W-PR	☐	df / nh3	
1009511-001D				10/13/2010		3005A-DIS-PR	☐	df / dis/met	2
				10/13/2010		6010C-DIS	☑	df / dis/met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	df / dis/met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	df / dis/met	
1009511-001E				10/13/2010		3005A-ICPMS-PR	☐	df / total metals	1
				10/13/2010		6010C-W	☑	df / total metals	
	SEL Analytes: FE								
				10/13/2010		6020-W	☑	df / total metals	
	SEL Analytes: MN								
1009511-002A	CR-10-11	9/28/2010 2:15:00 PM		10/13/2010		TDS-W-2540C	☐	ww - tds	

WORK ORDER Summary

Work Order: **1009511**

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Ground Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

9/29/2010
WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009511-002B	CR-10-11 SEL Analytes: CL SO4	9/28/2010 2:15:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	300.0-W	☑	DF - wc	1
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
	SEL Analytes: ALK ALKB ALKC			10/13/2010		ALK-W-2320B	☑	DF - wc	
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009511-002C				10/13/2010		NH3-W-350.1	☐	df / nh3	
				10/13/2010		NH3-W-PR	☐	df / nh3	
1009511-002D				10/13/2010		3005A-DIS-PR	☐	df / dismet	2
	SEL Analytes: AL B CA FE MG MO K NA			10/13/2010		6010C-DIS	☑	df / dismet	
	SEL Analytes: AS CD CU PB MN SE ZN			10/13/2010		6020-DIS	☑	df / dismet	
				10/13/2010		HARD-2340B	☐	df / dismet	
1009511-002E				10/13/2010		3005A-ICPMS-PR	☐	df / total met	1
	SEL Analytes: FE			10/13/2010		6010C-W	☑	df / total met	
	SEL Analytes: MN			10/13/2010		6020-W	☑	df / total met	

Client CARBON RESOURCES c/o ROCK LOGIC
Address PO BOX 544
CEDAREDGE CO 81413
City State Zip
Phone (435) 851-9044 Fax
Contact BRAD LINDSAY
E-mail ROCKLOGICCONSULTING@GMAIL.COM
Project Name SCOFIELD BASELINE
Project Number/P.O.#
Sampler Name BRAD LINDSAY

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115

CHAIN OF CUSTODY

(801) 263-8686
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Lab Sample Set # 1009508
Page 1 of 1

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TABLE 4	TABLE 3									COMMENTS
CR-10-12	9/28/10 11:00	W	6	✓	✓									1009511
CR-10-11	14:15		6	✓										
MUD CREEK	12:00		7		✓									
SULFUR SPRING	12:35		7		✓									
RES-1	12:50		7		✓									1009508
MILLER OUTLET	13:20		7		✓									
ASPEN SPRING	17:45		7		✓									

QC LEVEL: 1 2 2+ 3 3+ 4

LABORATORY USE ONLY
SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes: on ice
3 Temperature 3.5
4 Received Broken/Leaking (Improperly Sealed) Y N
Notes:
5 Properly Preserved Y N
Checked at Bench Y N
Notes:
6 Received Within Holding Times Y N
Notes:

COC Tape Was:
1 Present on Outer Package Y N NA
2 Unbroken on Outer Package Y N NA
3 Present on Sample Y N NA
4 Unbroken on Sample Y N NA

Discrepancies Between Sample Labels and COC Record? Y N
Notes:

Relinquished By: Signature	Date	Received By: Signature	Date
Brad Lindsay	9/28/10	[illegible]	9/28/10
PRINT NAME: BRAD LINDSAY	Time 19:30	PRINT NAME: JEFFREY LINDSAY	Time 19:30
Relinquished By: Signature [illegible]	Date 9/29/10	Received By: Signature [illegible]	Date 9/29/10
PRINT NAME: JEFFREY LINDSAY	Time 8:02	PRINT NAME: [illegible]	Time 802
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:
PLEASE FILTER
TABLE 4 SHOULD BE TITLED "GROUND WATER MONITORING..."
TABLE 3 SHOULD BE TITLED "SURFACE WATER MONITORING..."

TABLE 4

1 L HDPE
1 L HDPE
250 mL HDPE
1 x 500 mL HNO_3
1 x 250 mL H_2SO_4

Utah Division of Oil, Gas & Mining
Surface Water Monitoring Recommendations
Baseline, Operational and Post-mining

FIELD MEASUREMENTS			REPORTED AS
*	-	Water level or Flow	Depth, Flow
*	-	pH	Standard units
*	-	Specific Conductivity	umhos/cm @ 25° C
*	-	Temperature	°C

LABORATORY MEASUREMENTS			
*	-	Total Dissolved Solids	mg/l
*	-	Total Hardness ($CaCO_3$)	mg/l
*	-	Total Alkalinity	mg/l
	-	Acidity	mg/l
	-	Aluminum (Dissolved)	mg/l
	-	Arsenic (Dissolved)	mg/l
	-	Boron (Dissolved)[1]	mg/l
*	-	Carbonate	mg/l
*	-	Bicarbonate	mg/l
	-	Cadmium (Dissolved)	mg/l
*	-	Calcium (Dissolved)	mg/l
*	-	Chloride	mg/l
	-	Copper (Dissolved)	mg/l
*	-	Iron (Dissolved)	mg/l
*	-	Iron (Total)	mg/l
	-	Lead (Dissolved)	mg/l
*	-	Magnesium (Dissolved)	mg/l
*	-	Manganese (Dissolved)	mg/l
*	-	Manganese (Total)	mg/l
	-	Molybdenum (Dissolved)	mg/l
	-	Ammonia	mg/l
	-	Nitrates	mg/l
	-	Nitrites	mg/l
*	-	Potassium (Dissolved)	mg/l
	-	Phosphate (Ortho)	mg/l
	-	Selenium[1] (Dissolved)	mg/l
*	-	Sodium (Dissolved)	mg/l
*	-	Sulfate	mg/l
	-	Zinc (Dissolved)	mg/l
*	-	Cations	meq/l
*	-	Anions	meq/l

[1] These parameters should be analyzed in the baseline for all sites and included as operational at waste rock sites only.
\- Indicates parameters recommended for Baseline monitoring.
* Indicates parameters recommended for Operational and Post-mining monitoring unless amended as per section 5E above.

Sample Set: 1009511

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except
Ammonia	pH <2 H_2SO_4	✓															
COD	pH <2 H_2SO_4																
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3	✓															
NO_2 & NO_3	pH <2 H_2SO_4																
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL																
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Brad Lindsay
Carbon Resources
PO Box 544
Cedaredge, CO 81413
TEL: (970) 856-6788

RE: Scofield Baseline / Surface Water Monitoring

Dear Brad Lindsay: Lab Set ID: 1009508

American West Analytical Laboratories received 5 sample(s) on 9/29/2010 for the analyses presented in the following report.

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is certified by The NELAC Institute in Utah and Texas; and is state certified in Colorado and Idaho. Certification document is available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitaion limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by: _____
Laboratory Director or designee

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-001
Client Sample ID: Mud Creek
Collection Date: 9/28/2010 1200h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.000600	< 0.000600	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1639h	SW6010C	10.0	**53.4**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.000800	< 0.000800	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	1.00	**33.2**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.00120	**0.00662**	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1753h	SW6010C	1.00	**6.37**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1639h	SW6010C	10.0	**43.2**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2017h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-002
Client Sample ID: Sulfur Spring
Collection Date: 9/28/2010 1235h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.000600	< 0.000600	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1651h	SW6010C	10.0	**89.4**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.000800	< 0.000800	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	1.00	**33.7**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.00120	**0.0271**	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	1.00	**4.65**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1808h	SW6010C	1.00	**8.21**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2048h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-003
Client Sample ID: RES-1
Collection Date: 9/28/2010 1250h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.000600	**0.00305**	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	1.00	**47.8**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.000800	**0.00125**	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1655h	SW6010C	10.0	**75.5**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.00120	**0.244**	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	1.00	**10.5**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1812h	SW6010C	1.00	**34.4**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2054h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-004
Client Sample ID: Miller Outlet
Collection Date: 9/28/2010 1320h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared		Date Analyzed		Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.000600	< 0.000600	
Boron	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010	1321h	10/6/2010	1659h	SW6010C	10.0	**67.9**	
Copper	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.000800	< 0.000800	
Iron	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	0.100	< 0.100	
Lead	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	1.00	**16.5**	
Manganese	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.00120	**0.00161**	
Molybdenum	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	1.00	**2.08**	
Selenium	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010	1321h	10/6/2010	1816h	SW6010C	1.00	**6.21**	
Zinc	mg/L	9/30/2010	1321h	10/1/2010	2059h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-005
Client Sample ID: Aspen Spring
Collection Date: 9/28/2010 1745h
Received Date: 9/29/2010 0802h

DISSOLVED METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Aluminum	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	0.100	< 0.100	
Arsenic	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.000600	**0.00162**	
Boron	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	0.500	< 0.500	
Cadmium	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.000180	< 0.000180	
Calcium	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	1.00	**35.1**	
Copper	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.000800	**0.00267**	
Iron	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	0.100	**0.213**	
Lead	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.000400	< 0.000400	
Magnesium	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	1.00	**10.9**	
Manganese	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.00120	**0.0106**	
Molybdenum	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	0.0200	< 0.0200	
Potassium	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	1.00	**24.1**	
Selenium	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.000800	< 0.000800	
Sodium	mg/L	9/30/2010 1321h	10/6/2010 1820h	SW6010C	1.00	**11.1**	
Zinc	mg/L	9/30/2010 1321h	10/1/2010 2125h	SW6020A	0.00500	< 0.00500	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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INORGANIC ANALYTICAL REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-001
Client Sample ID: Mud Creek
Collection Date: 9/28/2010 1200h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1520h	SW6010C	0.100	**0.207**	
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2020h	SW6020A	0.00120	**0.0200**	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

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Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-002
Client Sample ID: Sulfur Spring
Collection Date: 9/28/2010 1235h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1536h	SW6010C	0.100	< 0.100	
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2038h	SW6020A	0.00120	**0.0272**	

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Laboratory Director

Jose Rocha
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Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-003
Client Sample ID: RES-1
Collection Date: 9/28/2010 1250h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1551h	SW6010C	0.100	**1.95**	
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2044h	SW6020A	0.00120	**0.405**	

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INORGANIC ANALYTICAL REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-004
Client Sample ID: Miller Outlet
Collection Date: 9/28/2010 1320h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010 1324h	10/5/2010 1555h	SW6010C	0.100	**0.628**	
Manganese	mg/L	9/30/2010 1324h	9/30/2010 2049h	SW6020A	0.00120	**0.0263**	

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INORGANIC ANALYTICAL REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-005
Client Sample ID: Aspen Spring
Collection Date: 9/28/2010 1745h
Received Date: 9/29/2010 0802h

TOTAL METALS

Analytical Results	Units	Date Prepared		Date Analyzed		Method Used	Reporting Limit	Analytical Result	Qual
Iron	mg/L	9/30/2010	1324h	10/5/2010	1559h	SW6010C	0.100	**25.8**	
Manganese	mg/L	9/30/2010	1324h	9/30/2010	2055h	SW6020A	0.00120	**0.609**	

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Jose Rocha
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Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-001
Client Sample ID: Mud Creek
Collection Date: 9/28/2010 1200h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**238**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0826h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**238**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	10.0	< 10.0	
Chloride	mg/L		10/1/2010 1712h	E300.0	1.00	**14.1**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**270**	
Nitrate (as N)	mg/L		9/29/2010 1442h	E353.2	0.0100	< 0.0100	1
Nitrite (as N)	mg/L		9/29/2010 1442h	E353.2	0.0100	< 0.0100	1
Oil & Grease	mg/L		9/29/2010 1358h	E1664A	3.00	**3.10**	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1558h	E365.1	0.0500	< 0.0500	1
Settleable Solids	mL/L		9/29/2010 1325h	A2540F	0.100	< 0.100	
Sulfate	mg/L		10/1/2010 1712h	E300.0	7.50	**122**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**412**	
Total Suspended Solids	mg/L		9/29/2010 1530h	A2540D	3.00	**13.0**	

[1] - *Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.*

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Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-002
Client Sample ID: Sulfur Spring
Collection Date: 9/28/2010 1235h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**343**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0830h	E350.1	0.0500	**0.142**	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**343**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	10.0	< 10.0	
Chloride	mg/L		9/29/2010 2106h	E300.0	1.00	**6.63**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**362**	
Nitrate (as N)	mg/L		9/29/2010 1455h	E353.2	0.0100	< 0.0100	
Nitrite (as N)	mg/L		9/29/2010 1455h	E353.2	0.0100	< 0.0100	
Oil & Grease	mg/L		9/29/2010 1358h	E1664A	3.00	**3.10**	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1601h	E365.1	0.0500	< 0.0500	
Settleable Solids	mL/L		9/29/2010 1325h	A2540F	0.100	< 0.100	
Sulfate	mg/L		9/29/2010 2106h	E300.0	7.50	**43.3**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**388**	
Total Suspended Solids	mg/L		9/29/2010 1530h	A2540D	3.00	< 3.00	

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Laboratory Director

Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-003
Client Sample ID: RES-1
Collection Date: 9/28/2010 1250h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**406**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0831h	E350.1	0.0500	**0.0642**	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**315**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**91.0**	
Chloride	mg/L		9/29/2010 2129h	E300.0	1.00	**68.3**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**430**	
Nitrate (as N)	mg/L		9/29/2010 1457h	E353.2	0.0100	**0.200**	
Nitrite (as N)	mg/L		9/29/2010 1457h	E353.2	0.0100	< 0.0100	
Oil & Grease	mg/L		9/29/2010 1358h	E1664A	3.00	**3.24**	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1602h	E365.1	0.0500	**0.0770**	
Settleable Solids	mL/L		9/29/2010 1325h	A2540F	0.100	**4.70**	
Sulfate	mg/L		9/29/2010 2129h	E300.0	7.50	**11.6**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**568**	
Total Suspended Solids	mg/L		9/29/2010 1530h	A2540D	3.00	**67.0**	

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Kyle F. Gross
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Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-004
Client Sample ID: Miller Outlet
Collection Date: 9/28/2010 1320h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**217**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0832h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**214**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	< 20.0	
Chloride	mg/L		10/1/2010 1735h	E300.0	1.00	**10.1**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**238**	
Nitrate (as N)	mg/L		9/29/2010 1458h	E353.2	0.0100	< 0.0100	
Nitrite (as N)	mg/L		9/29/2010 1458h	E353.2	0.0100	< 0.0100	
Oil & Grease	mg/L		9/29/2010 1358h	E1664A	3.00	< 3.00	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1602h	E365.1	0.0500	< 0.0500	
Settleable Solids	mL/L		9/29/2010 1325h	A2540F	0.100	< 0.100	
Sulfate	mg/L		10/1/2010 1735h	E300.0	7.50	**23.5**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**272**	
Total Suspended Solids	mg/L		9/29/2010 1530h	A2540D	3.00	**20.0**	

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Jose Rocha
QA Officer

Client: Carbon Resources **Contact:** Brad Lindsay
Project: Scofield Baseline / Surface Water Monitoring
Lab Sample ID: 1009508-005
Client Sample ID: Aspen Spring
Collection Date: 9/28/2010 1745h
Received Date: 9/29/2010 0802h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Acidity	mg/L		9/30/2010 1110h	A2310B	15.0	< 15.0	
Alkalinity (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**124**	
Ammonia (as N)	mg/L	10/1/2010 1019h	10/4/2010 0833h	E350.1	0.0500	**1.63**	
Bicarbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	20.0	**124**	
Carbonate (as CaCO3)	mg/L		9/30/2010 1015h	A2320B	10.0	< 10.0	
Chloride	mg/L		10/1/2010 1931h	E300.0	0.500	**36.1**	
Hardness (as CaCO3)	mg/L		10/6/2010	A2340B	10.0	**128**	
Nitrate (as N)	mg/L		9/29/2010 1459h	E353.2	0.0100	< 0.0100	
Nitrite (as N)	mg/L		9/29/2010 1459h	E353.2	0.0100	**0.0605**	
Oil & Grease	mg/L		9/29/2010 1358h	E1664A	3.00	< 3.00	
Phosphate, Total Ortho (as P)	mg/L		9/29/2010 1603h	E365.1	0.0500	**0.118**	
Settleable Solids	mL/L		9/29/2010 1325h	A2540F	0.100	**1.50**	
Sulfate	mg/L		10/1/2010 1931h	E300.0	3.75	**29.1**	
Total Dissolved Solids	mg/L		10/1/2010 1330h	A2540C	10.0	**342**	
Total Suspended Solids	mg/L		9/29/2010 1530h	A2540D	15.0	**344**	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: ME
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
LCS-8751	Aluminum	mg/L	SW6010C	0.950	1.000	0	95.0	80-120				10/6/2010
LCS-8751	Boron	mg/L	SW6010C	0.968	1.000	0	96.8	80-120				10/6/2010
LCS-8751	Calcium	mg/L	SW6010C	9.09	10.00	0	90.9	80-120				10/6/2010
LCS-8751	Iron	mg/L	SW6010C	0.945	1.000	0	94.5	80-120				10/6/2010
LCS-8751	Magnesium	mg/L	SW6010C	9.39	10.00	0	93.9	80-120				10/6/2010
LCS-8751	Molybdenum	mg/L	SW6010C	0.183	0.2000	0	91.4	80-120				10/6/2010
LCS-8751	Potassium	mg/L	SW6010C	9.71	10.00	0	97.1	80-120				10/6/2010
LCS-8751	Sodium	mg/L	SW6010C	9.44	10.00	0	94.4	80-120				10/6/2010
LCS-8752	Iron	mg/L	SW6010C	1.06	1.000	0	106	80-120				10/5/2010
LCS-8751	Arsenic	mg/L	SW6020A	0.200	0.2000	0	100	85-115				10/1/2010
LCS-8751	Cadmium	mg/L	SW6020A	0.200	0.2000	0	99.9	85-115				10/1/2010
LCS-8751	Copper	mg/L	SW6020A	0.201	0.2000	0	101	85-115				10/1/2010
LCS-8751	Lead	mg/L	SW6020A	0.200	0.2000	0	100	85-115				10/1/2010
LCS-8751	Manganese	mg/L	SW6020A	0.202	0.2000	0	101	85-115				10/1/2010
LCS-8751	Selenium	mg/L	SW6020A	0.204	0.2000	0	102	85-115				10/1/2010
LCS-8751	Zinc	mg/L	SW6020A	1.01	1.000	0	101	85-115				10/1/2010
LCS-8752	Arsenic	mg/L	SW6020A	0.200	0.2000	0	99.9	85-115				9/30/2010
LCS-8752	Cadmium	mg/L	SW6020A	0.199	0.2000	0	99.7	85-115				9/30/2010
LCS-8752	Copper	mg/L	SW6020A	0.201	0.2000	0	100	85-115				9/30/2010
LCS-8752	Lead	mg/L	SW6020A	0.200	0.2000	0	100	85-115				9/30/2010
LCS-8752	Manganese	mg/L	SW6020A	0.200	0.2000	0	99.8	85-115				9/30/2010
LCS-8752	Selenium	mg/L	SW6020A	0.202	0.2000	0	101	85-115				9/30/2010
LCS-8752	Zinc	mg/L	SW6020A	1.01	1.000	0	101	85-115				9/30/2010

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: ME
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
MB-8751	Aluminum	mg/L	SW6010C	< 0.100				-				10/6/2010
MB-8751	Boron	mg/L	SW6010C	< 0.500				-				10/6/2010
MB-8751	Calcium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Iron	mg/L	SW6010C	< 0.100				-				10/6/2010
MB-8751	Magnesium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Molybdenum	mg/L	SW6010C	< 0.0200				-				10/6/2010
MB-8751	Potassium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8751	Sodium	mg/L	SW6010C	< 1.00				-				10/6/2010
MB-8752	Iron	mg/L	SW6010C	< 0.100				-				10/5/2010
MB-8751	Arsenic	mg/L	SW6020A	< 0.000600				-				10/1/2010
MB-8751	Cadmium	mg/L	SW6020A	< 0.000180				-				10/1/2010
MB-8751	Copper	mg/L	SW6020A	< 0.000800				-				10/1/2010
MB-8751	Lead	mg/L	SW6020A	< 0.000400				-				10/1/2010
MB-8751	Manganese	mg/L	SW6020A	< 0.00120				-				10/1/2010
MB-8751	Selenium	mg/L	SW6020A	< 0.000800				-				10/1/2010
MB-8751	Zinc	mg/L	SW6020A	< 0.00500				-				10/1/2010
MB-8752	Arsenic	mg/L	SW6020A	< 0.000600				-				9/30/2010
MB-8752	Cadmium	mg/L	SW6020A	< 0.000180				-				9/30/2010
MB-8752	Copper	mg/L	SW6020A	< 0.000800				-				9/30/2010
MB-8752	Lead	mg/L	SW6020A	< 0.000400				-				9/30/2010
MB-8752	Manganese	mg/L	SW6020A	< 0.00120				-				9/30/2010
MB-8752	Selenium	mg/L	SW6020A	< 0.000800				-				9/30/2010
MB-8752	Zinc	mg/L	SW6020A	< 0.00500				-				9/30/2010

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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: ME
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMS	Aluminum	mg/L	SW6010C	0.986	1.000	0	98.6	75-125				10/6/2010
1009508-001EMS	Boron	mg/L	SW6010C	1.23	1.000	0.1526	108	75-125				10/6/2010
1009508-001EMS	Iron	mg/L	SW6010C	0.998	1.000	0	99.8	75-125				10/6/2010
1009508-001EMS	Magnesium	mg/L	SW6010C	42.0	10.00	33.17	88.2	75-125				10/6/2010
1009508-001EMS	Molybdenum	mg/L	SW6010C	0.195	0.2000	0	97.3	75-125				10/6/2010
1009508-001EMS	Potassium	mg/L	SW6010C	16.4	10.00	6.373	100	75-125				10/6/2010
1009511-001DMS	Aluminum	mg/L	SW6010C	0.866	1.000	0	86.6	75-125				10/6/2010
1009511-001DMS	Boron	mg/L	SW6010C	0.955	1.000	0.01937	93.6	75-125				10/6/2010
1009511-001DMS	Iron	mg/L	SW6010C	0.875	1.000	0	87.5	75-125				10/6/2010
1009511-001DMS	Magnesium	mg/L	SW6010C	15.9	10.00	7.380	84.8	75-125				10/6/2010
1009511-001DMS	Molybdenum	mg/L	SW6010C	0.169	0.2000	0	84.7	75-125				10/6/2010
1009511-001DMS	Potassium	mg/L	SW6010C	9.77	10.00	1.011	87.6	75-125				10/6/2010
1009511-001DMS	Sodium	mg/L	SW6010C	24.4	10.00	16.03	83.3	75-125				10/6/2010
1009508-001EMS	Calcium	mg/L	SW6010C	63.1	10.00	53.40	96.9	75-125				10/6/2010
1009508-001EMS	Sodium	mg/L	SW6010C	53.5	10.00	43.17	103	75-125				10/6/2010
1009511-001DMS	Calcium	mg/L	SW6010C	91.4	10.00	82.42	89.4	75-125				10/6/2010
1009508-001FMS	Iron	mg/L	SW6010C	1.27	1.000	0.2070	106	75-125				10/5/2010
1009511-001EMS	Iron	mg/L	SW6010C	10.8	1.000	9.380	142	75-125			2	10/5/2010
1009508-001EMS	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004450	100	75-125				10/1/2010
1009508-001EMS	Cadmium	mg/L	SW6020A	0.200	0.2000	0	100	75-125				10/1/2010
1009508-001EMS	Copper	mg/L	SW6020A	0.195	0.2000	0	97.5	75-125				10/1/2010
1009508-001EMS	Lead	mg/L	SW6020A	0.203	0.2000	0	101	75-125				10/1/2010
1009508-001EMS	Manganese	mg/L	SW6020A	0.206	0.2000	0.006622	99.7	75-125				10/1/2010
1009508-001EMS	Selenium	mg/L	SW6020A	0.202	0.2000	0.0005100	101	75-125				10/1/2010

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: ME
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMS	Zinc	mg/L	SW6020A	1.01	1.000	0	101	75-125				10/1/2010
1009511-001DMS	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004980	100	75-125				10/1/2010
1009511-001DMS	Cadmium	mg/L	SW6020A	0.197	0.2000	0.00008100	98.5	75-125				10/1/2010
1009511-001DMS	Copper	mg/L	SW6020A	0.201	0.2000	0.0004650	100	75-125				10/1/2010
1009511-001DMS	Lead	mg/L	SW6020A	0.201	0.2000	0	100	75-125				10/1/2010
1009511-001DMS	Manganese	mg/L	SW6020A	0.204	0.2000	0.002118	101	75-125				10/1/2010
1009511-001DMS	Selenium	mg/L	SW6020A	0.201	0.2000	0.0006810	100	75-125				10/1/2010
1009511-001DMS	Zinc	mg/L	SW6020A	0.990	1.000	0	99.0	75-125				10/1/2010
1009522-001BMS	Manganese	mg/L	SW6020A	0.223	0.2000	0.02429	99.4	75-125				10/1/2010
1009508-001FMS	Manganese	mg/L	SW6020A	0.220	0.2000	0.02004	99.9	75-125				9/30/2010
1009511-001EMS	Manganese	mg/L	SW6020A	0.297	0.2000	0.09608	101	75-125				9/30/2010
1009533-001FMS	Arsenic	mg/L	SW6020A	0.287	0.2000	0.09053	98.2	75-125				9/30/2010
1009533-001FMS	Cadmium	mg/L	SW6020A	0.195	0.2000	0.0002780	97.4	75-125				9/30/2010
1009533-001FMS	Copper	mg/L	SW6020A	0.203	0.2000	0.002522	100	75-125				9/30/2010
1009533-001FMS	Lead	mg/L	SW6020A	0.200	0.2000	0	100	75-125				9/30/2010
1009533-001FMS	Manganese	mg/L	SW6020A	1.81	0.2000	1.663	74.6	75-125			2	9/30/2010
1009533-001FMS	Selenium	mg/L	SW6020A	0.210	0.2000	0.007680	101	75-125				9/30/2010
1009533-001FMS	Zinc	mg/L	SW6020A	1.04	1.000	0.02531	101	75-125				9/30/2010

[2] - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508 **Dept:** ME
Project: Scofield Baseline / Surface Water Monitoring **QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMSD	Aluminum	mg/L	SW6010C	0.970	1.000	0	97.0	75-125	1.67	20		10/6/2010
1009508-001EMSD	Boron	mg/L	SW6010C	1.22	1.000	0.1526	107	75-125	1.08	20		10/6/2010
1009508-001EMSD	Iron	mg/L	SW6010C	0.962	1.000	0	96.2	75-125	3.61	20		10/6/2010
1009508-001EMSD	Magnesium	mg/L	SW6010C	40.8	10.00	33.17	75.8	75-125	3.00	20		10/6/2010
1009508-001EMSD	Molybdenum	mg/L	SW6010C	0.193	0.2000	0	96.3	75-125	1.09	20		10/6/2010
1009508-001EMSD	Potassium	mg/L	SW6010C	15.9	10.00	6.373	95.7	75-125	2.86	20		10/6/2010
1009511-001DMSD	Aluminum	mg/L	SW6010C	0.969	1.000	0	96.9	75-125	11.2	20		10/6/2010
1009511-001DMSD	Boron	mg/L	SW6010C	1.06	1.000	0.01937	104	75-125	10.8	20		10/6/2010
1009511-001DMSD	Iron	mg/L	SW6010C	0.944	1.000	0	94.4	75-125	7.62	20		10/6/2010
1009511-001DMSD	Magnesium	mg/L	SW6010C	16.6	10.00	7.380	92.4	75-125	4.64	20		10/6/2010
1009511-001DMSD	Molybdenum	mg/L	SW6010C	0.188	0.2000	0	94.0	75-125	10.4	20		10/6/2010
1009511-001DMSD	Potassium	mg/L	SW6010C	10.7	10.00	1.011	96.7	75-125	8.90	20		10/6/2010
1009511-001DMSD	Sodium	mg/L	SW6010C	25.0	10.00	16.03	89.5	75-125	2.51	20		10/6/2010
1009508-001EMSD	Calcium	mg/L	SW6010C	65.4	10.00	53.40	121	75-125	3.67	20		10/6/2010
1009508-001EMSD	Sodium	mg/L	SW6010C	54.9	10.00	43.17	117	75-125	2.59	20		10/6/2010
1009511-001DMSD	Calcium	mg/L	SW6010C	92.0	10.00	82.42	96.0	75-125	0.711	20		10/6/2010
1009508-001FMSD	Iron	mg/L	SW6010C	1.30	1.000	0.2070	109	75-125	2.33	20		10/5/2010
1009511-001EMSD	Iron	mg/L	SW6010C	10.9	1.000	9.380	152	75-125	0.922	20	2	10/5/2010
1009508-001EMSD	Arsenic	mg/L	SW6020A	0.202	0.2000	0.0004450	101	75-125	0.144	20		10/1/2010
1009508-001EMSD	Cadmium	mg/L	SW6020A	0.200	0.2000	0	100	75-125	0.00600	20		10/1/2010
1009508-001EMSD	Copper	mg/L	SW6020A	0.196	0.2000	0	98.0	75-125	0.554	20		10/1/2010
1009508-001EMSD	Lead	mg/L	SW6020A	0.201	0.2000	0	101	75-125	0.801	20		10/1/2010
1009508-001EMSD	Manganese	mg/L	SW6020A	0.203	0.2000	0.006622	98.3	75-125	1.38	20		10/1/2010
1009508-001EMSD	Selenium	mg/L	SW6020A	0.200	0.2000	0.0005100	99.9	75-125	0.657	20		10/1/2010

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Jose Rocha
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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: ME
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001EMSD	Zinc	mg/L	SW6020A	1.00	1.000	0	100	75-125	0.326	20		10/1/2010
1009522-001BMSD	Manganese	mg/L	SW6020A	0.223	0.2000	0.02429	99.5	75-125	0.0699	20		10/1/2010
1009511-001DMSD	Arsenic	mg/L	SW6020A	0.201	0.2000	0.0004980	100	75-125	0.195	20		10/1/2010
1009511-001DMSD	Cadmium	mg/L	SW6020A	0.198	0.2000	0.00008100	99.2	75-125	0.700	20		10/1/2010
1009511-001DMSD	Copper	mg/L	SW6020A	0.201	0.2000	0.0004650	100	75-125	0.0911	20		10/1/2010
1009511-001DMSD	Lead	mg/L	SW6020A	0.200	0.2000	0	99.9	75-125	0.462	20		10/1/2010
1009511-001DMSD	Manganese	mg/L	SW6020A	0.205	0.2000	0.002118	101	75-125	0.380	20		10/1/2010
1009511-001DMSD	Selenium	mg/L	SW6020A	0.202	0.2000	0.0006810	100	75-125	0.388	20		10/1/2010
1009511-001DMSD	Zinc	mg/L	SW6020A	0.987	1.000	0	98.7	75-125	0.281	20		10/1/2010
1009508-001FMSD	Manganese	mg/L	SW6020A	0.222	0.2000	0.02004	101	75-125	0.954	20		9/30/2010
1009511-001EMSD	Manganese	mg/L	SW6020A	0.298	0.2000	0.09608	101	75-125	0.0988	20		9/30/2010
1009533-001FMSD	Arsenic	mg/L	SW6020A	0.288	0.2000	0.09053	98.8	75-125	0.381	20		9/30/2010
1009533-001FMSD	Cadmium	mg/L	SW6020A	0.194	0.2000	0.0002780	96.8	75-125	0.549	20		9/30/2010
1009533-001FMSD	Copper	mg/L	SW6020A	0.203	0.2000	0.002522	100	75-125	0.0113	20		9/30/2010
1009533-001FMSD	Lead	mg/L	SW6020A	0.200	0.2000	0	100	75-125	0.00150	20		9/30/2010
1009533-001FMSD	Manganese	mg/L	SW6020A	1.76	0.2000	1.663	49.1	75-125	2.86	20	z	9/30/2010
1009533-001FMSD	Selenium	mg/L	SW6020A	0.211	0.2000	0.007680	101	75-125	0.299	20		9/30/2010
1009533-001FMSD	Zinc	mg/L	SW6020A	1.03	1.000	0.02531	101	75-125	0.706	20		9/30/2010

z - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508 **Dept:** WC
Project: Scofield Baseline / Surface Water Monitoring **QC Type:** DUP

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009508-001ADUP	Total Dissolved Solids	mg/L	A2540C	404		412.0		-	1.96	5		10/1/2010
1009511-001ADUP	Total Dissolved Solids	mg/L	A2540C	394		390.0		-	1.02	5		10/1/2010
1009533-001HDUP	Total Dissolved Solids	mg/L	A2540C	1,140		1,132		-	1.05	5		10/1/2010
1009503-001ADUP	Total Suspended Solids	mg/L	A2540D	101		100.0		-	0.995	5		9/29/2010
1009508-002ADUP	Total Suspended Solids	mg/L	A2540D	< 3.00		1.000		-	0	5		9/29/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
LCS-R18970	Chloride	mg/L	E300.0	4.73	5.000	0	94.6	90-110				9/29/2010
LCS-R18970	Sulfate	mg/L	E300.0	5.51	5.000	0	110	90-110				9/29/2010
LCS-R19058	Chloride	mg/L	E300.0	4.54	5.000	0	90.7	90-110				10/1/2010
LCS-R19058	Sulfate	mg/L	E300.0	4.87	5.000	0	97.4	90-110				10/1/2010
LCS-R18965	Acidity	mg/L	A2310B	48.0	50.00	0	96.0	80-120				9/30/2010
LCS-R18966	Alkalinity (as CaCO3)	mg/L	A2320B	51,600	50,000	0	103	90-110				9/30/2010
LCS-8769	Ammonia (as N)	mg/L	E350.1	1.09	1.000	0	109	90-110				10/4/2010
LCS-R18989	Oil & Grease	mg/L	E1664A	40.2	40.00	2.700	93.8	78-114				9/29/2010
LCS-R18919	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.962	1.000	0.005800	95.6	90-110				9/29/2010
LCS-R19081	Total Dissolved Solids	mg/L	A2540C	192	205.0	0	93.7	80-120				10/1/2010
LCS-R18955	Total Suspended Solids	mg/L	A2540D	97.0	100.0	0	97.0	80-120				9/29/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
MB-R18970	Chloride	mg/L	E300.0	< 0.100				-				9/29/2010
MB-R18970	Sulfate	mg/L	E300.0	< 0.750				-				9/29/2010
MB-R19058	Chloride	mg/L	E300.0	< 0.100				-				10/1/2010
MB-R19058	Sulfate	mg/L	E300.0	< 0.750				-				10/1/2010
MB-R18965	Acidity	mg/L	A2310B	< 15.0				-				9/30/2010
MB-R18966	Alkalinity (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-R18966	Bicarbonate (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-R18966	Carbonate (as CaCO3)	mg/L	A2320B	< 10.0				-				9/30/2010
MB-8769	Ammonia (as N)	mg/L	E350.1	< 0.0500				-				10/4/2010
MB-R18989	Oil & Grease	mg/L	E1664A	< 3.00				-				9/29/2010
MB-R18919	Phosphate, Total Ortho (as P)	mg/L	E365.1	< 0.0500				-				9/29/2010
MB-R19081	Total Dissolved Solids	mg/L	A2540C	< 10.0				-				10/1/2010
MB-R18955	Total Suspended Solids	mg/L	A2540D	< 3.00				-				9/29/2010

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Jose Rocha
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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508 **Dept:** WC
Project: Scofield Baseline / Surface Water Monitoring **QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit Qualifiers	Analysis Date
1009507-005CMS	Chloride	mg/L	E300.0	85.2	25.00	61.56	94.4	90-110			9/29/2010
1009507-005CMS	Sulfate	mg/L	E300.0	6.91	5.000	1.929	99.6	90-110			10/1/2010
1009508-004BMS	Chloride	mg/L	E300.0	55.7	50.00	10.05	91.4	90-110			10/1/2010
1009508-004BMS	Sulfate	mg/L	E300.0	73.0	50.00	23.46	99.0	90-110			10/1/2010
1009511-001BMS	Chloride	mg/L	E300.0	480	500.0	0	96.0	90-110			10/1/2010
1009522-001AMS	Chloride	mg/L	E300.0	65.6	25.00	39.76	103	90-110			10/1/2010
1009522-001AMS	Sulfate	mg/L	E300.0	36.1	25.00	11.88	96.8	90-110			10/1/2010
1009533-001DMS	Chloride	mg/L	E300.0	140	50.00	86.55	106	90-110			10/2/2010
1009533-001DMS	Sulfate	mg/L	E300.0	185	50.00	133.8	102	90-110			10/2/2010
1009508-005BMS	Acidity	mg/L	A2310B	46.0	50.00	0	92.0	80-120			9/30/2010
1009511-001BMS	Acidity	mg/L	A2310B	52.0	50.00	0	104	80-120			9/30/2010
1009508-001BMS	Alkalinity (as CaCO3)	mg/L	A2320B	338	100.0	238.0	100	80-120			9/30/2010
1009511-001BMS	Alkalinity (as CaCO3)	mg/L	A2320B	280	100.0	177.0	103	80-120			9/30/2010
1009522-001AMS	Alkalinity (as CaCO3)	mg/L	A2320B	1,570	500.0	1,059	101	80-120			9/30/2010
1009533-001DMS	Alkalinity (as CaCO3)	mg/L	A2320B	1,430	500.0	893.0	107	80-120			9/30/2010
1009508-001DMS	Ammonia (as N)	mg/L	E350.1	1.03	1.000	0	103	90-110			10/4/2010
1009511-002CMS	Ammonia (as N)	mg/L	E350.1	1.00	1.000	0	100	90-110			10/4/2010
1009533-001EMS	Ammonia (as N)	mg/L	E350.1	1.08	1.000	0.3142	76.9	90-110			10/4/2010
1009508-001BMS	Nitrite (as N)	mg/L	E353.2	1.09	1.000	0	109	90-110			9/29/2010
1009511-001BMS	Nitrite (as N)	mg/L	E353.2	1.10	1.000	0.02370	108	90-110			9/29/2010
1009508-001BMS	Nitrate (as N)	mg/L	E353.2	1.13	1.000	0.009300	112	90-110			9/29/2010
1009507-005CMS	Nitrate (as N)	mg/L	E353.2	0.790	1.000	0	79.0	90-110			9/29/2010
1009511-001BMS	Nitrate (as N)	mg/L	E353.2	18.4	10.00	0.6793	177	90-110			9/29/2010
1009508-001BMS	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.919	1.000	0.03440	88.5	90-110			9/29/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009511-001BMS	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.924	1.000	0.07200	85.2	90-110			[1]	9/29/2010

[1] - *Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.*

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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Jose Rocha
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QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508
Project: Scofield Baseline / Surface Water Monitoring

Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009507-005CMSD	Chloride	mg/L	E300.0	85.1	25.00	61.56	94.0	90-110	0.110	20		9/29/2010
1009507-005CMSD	Sulfate	mg/L	E300.0	6.86	5.000	1.929	98.5	90-110	0.799	20		10/1/2010
1009508-004BMSD	Chloride	mg/L	E300.0	55.4	50.00	10.05	90.7	90-110	0.569	20		10/1/2010
1009508-004BMSD	Sulfate	mg/L	E300.0	72.8	50.00	23.46	98.6	90-110	0.268	20		10/1/2010
1009511-001BMSD	Chloride	mg/L	E300.0	478	500.0	0	95.6	90-110	0.394	20		10/1/2010
1009522-001AMSD	Chloride	mg/L	E300.0	65.1	25.00	39.76	101	90-110	0.747	20		10/1/2010
1009522-001AMSD	Sulfate	mg/L	E300.0	35.5	25.00	11.88	94.6	90-110	1.53	20		10/1/2010
1009533-001DMSD	Chloride	mg/L	E300.0	140	50.00	86.55	107	90-110	0.233	20		10/2/2010
1009533-001DMSD	Sulfate	mg/L	E300.0	185	50.00	133.8	103	90-110	0.228	20		10/2/2010
1009508-005BMSD	Acidity	mg/L	A2310B	50.0	50.00	0	100	80-120	8.33	0		9/30/2010
1009511-001BMSD	Acidity	mg/L	A2310B	52.0	50.00	0	104	80-120	0	0		9/30/2010
1009508-001BMSD	Alkalinity (as CaCO3)	mg/L	A2320B	340	100.0	238.0	102	80-120	0.590	10		9/30/2010
1009511-001BMSD	Alkalinity (as CaCO3)	mg/L	A2320B	284	100.0	177.0	107	80-120	1.42	10		9/30/2010
1009522-001AMSD	Alkalinity (as CaCO3)	mg/L	A2320B	1,580	500.0	1,059	105	80-120	1.14	10		9/30/2010
1009533-001DMSD	Alkalinity (as CaCO3)	mg/L	A2320B	1,400	500.0	893.0	101	80-120	1.84	10		9/30/2010
1009508-001DMSD	Ammonia (as N)	mg/L	E350.1	1.06	1.000	0	106	90-110	3.06	10		10/4/2010
1009511-002CMSD	Ammonia (as N)	mg/L	E350.1	1.01	1.000	0	101	90-110	0.259	10		10/4/2010
1009533-001EMSD	Ammonia (as N)	mg/L	E350.1	1.19	1.000	0.3142	87.9	90-110	9.67	10	1	10/4/2010
1009508-001BMSD	Nitrite (as N)	mg/L	E353.2	1.10	1.000	0	110	90-110	1.11	10	1	9/29/2010
1009511-001BMSD	Nitrite (as N)	mg/L	E353.2	1.11	1.000	0.02370	109	90-110	0.929	10		9/29/2010
1009508-001BMSD	Nitrate (as N)	mg/L	E353.2	1.13	1.000	0.009300	112	90-110	0.222	10	1	9/29/2010
1009507-005CMSD	Nitrate (as N)	mg/L	E353.2	0.788	1.000	0	78.8	90-110	0.254	10	1	9/29/2010
1009511-001BMSD	Nitrate (as N)	mg/L	E353.2	17.0	10.00	0.6793	163	90-110	7.86	10	1	9/29/2010
1009508-001BMSD	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.955	1.000	0.03440	92.0	90-110	3.81	10		9/29/2010

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Carbon Resources
Lab Set ID: 1009508 **Dept:** WC
Project: Scofield Baseline / Surface Water Monitoring **QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qualifiers	Analysis Date
1009511-001BMSD	Phosphate, Total Ortho (as P)	mg/L	E365.1	0.994	1.000	0.07200	92.2	90-110	7.33	10		9/29/2010

[1] - *Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.*

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

American West Analytical Laboratories

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

HOK-DB

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-001A	Mud Creek	9/28/2010 12:00:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	SS-W-2540F	☐	ww - ss/tss	1
				10/13/2010		TDS-W-2540C	☐	ww - ss/tss	
				10/13/2010		TSS-W-2540D	☐	ww - ss/tss	
1009508-001B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009508-001C				10/13/2010		OGB-W-1664A	☐	ogb	
1009508-001D				10/13/2010		NH3-W-350.1	☐	DF - nh3	
				10/13/2010		NH3-W-PR	☐	DF - nh3	
1009508-001E				10/13/2010		3005A-DIS-PR	☐	DF - dis met	2
				10/13/2010		6010C-DIS	☑	DF - dis met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	DF - dis met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	DF - dis met	
1009508-001F				10/13/2010		3005A-ICPMS-PR	☐	DF - total met	1
				10/13/2010		6010C-W	☑	DF - total met	
	SEL Analytes: FE								

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-001F	Mud Creek	9/28/2010 12:00:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	6020-W	☑	DF - total met	1
	SEL Analytes: MN								
1009508-002A	Sulfur Spring	9/28/2010 12:35:00 PM		10/13/2010		SS-W-2540F	☐	ww - ss/tss	
				10/13/2010		TDS-W-2540C	☐	ww - ss/tss	
				10/13/2010		TSS-W-2540D	☐	ww - ss/tss	
1009508-002B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009508-002C				10/13/2010		OGB-W-1664A	☐	ogb	
1009508-002D				10/13/2010		NH3-W-350.1	☐	DF - nh3	
				10/13/2010		NH3-W-PR	☐	DF - nh3	
1009508-002E				10/13/2010		3005A-DIS-PR	☐	DF - dis met	2
				10/13/2010		6010C-DIS	☑	DF - dis met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	DF - dis met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	DF - dis met	
1009508-002F				10/13/2010		3005A-ICPMS-PR	☐	DF - total met	1
				10/13/2010		6010C-W	☑	DF - total met	
	SEL Analytes: FE								

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-002F	Sulfur Spring	9/28/2010 12:35:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	6020-W	☑	DF - total met	1
	SEL Analytes: MN								
1009508-003A	RES-1	9/28/2010 12:50:00 PM		10/13/2010		SS-W-2540F	☐	ww - ss/tss	
				10/13/2010		TDS-W-2540C	☐	ww - ss/tss	
				10/13/2010		TSS-W-2540D	☐	ww - ss/tss	
1009508-003B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009508-003C				10/13/2010		OGB-W-1664A	☐	ogb	
1009508-003D				10/13/2010		NH3-W-350.1	☐	DF - nh3	
				10/13/2010		NH3-W-PR	☐	DF - nh3	
1009508-003E				10/13/2010		3005A-DIS-PR	☐	DF - dis met	2
				10/13/2010		6010C-DIS	☑	DF - dis met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	DF - dis met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	DF - dis met	
1009508-003F				10/13/2010		3005A-ICPMS-PR	☐	DF - total met	1
				10/13/2010		6010C-W	☑	DF - total met	
	SEL Analytes: FE								

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-003F	RES-1	9/28/2010 12:50:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	6020-W	☑	DF - total met	1
	SEL Analytes: MN								
1009508-004A	Miller Outlet	9/28/2010 1:20:00 PM		10/13/2010		SS-W-2540F	☐	ww - ss/tss	
				10/13/2010		TDS-W-2540C	☐	ww - ss/tss	
				10/13/2010		TSS-W-2540D	☐	ww - ss/tss	
1009508-004B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009508-004C				10/13/2010		OGB-W-1664A	☐	ogb	
1009508-004D				10/13/2010		NH3-W-350.1	☐	DF - nh3	
				10/13/2010		NH3-W-PR	☐	DF - nh3	
1009508-004E				10/13/2010		3005A-DIS-PR	☐	DF - dis met	2
				10/13/2010		6010C-DIS	☑	DF - dis met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	DF - dis met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	DF - dis met	
1009508-004F				10/13/2010		3005A-ICPMS-PR	☐	DF - total met	1
				10/13/2010		6010C-W	☑	DF - total met	
	SEL Analytes: FE								

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-004F	Miller Outlet	9/28/2010 1:20:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	6020-W	☑	DF - total met	1
	SEL Analytes: MN								
1009508-005A	Aspen Spring	9/28/2010 5:45:00 PM		10/13/2010		SS-W-2540F	☐	ww - ss/tss	
				10/13/2010		TDS-W-2540C	☐	ww - ss/tss	
				10/13/2010		TSS-W-2540D	☐	ww - ss/tss	
1009508-005B				10/13/2010		300.0-W	☑	DF - wc	
	SEL Analytes: CL SO4								
				10/13/2010		ACIDITY-W-2310B	☐	DF - wc	
				10/13/2010		ALK-W-2320B	☑	DF - wc	
	SEL Analytes: ALK ALKB ALKC								
				10/13/2010		NO2-W-353.2	☐	DF - wc	
				10/13/2010		NO3-W-353.2	☐	DF - wc	
				10/13/2010		PO4-O-365.1	☐	DF - wc	
1009508-005C				10/13/2010		OGB-W-1664A	☐	ogb	
1009508-005D				10/13/2010		NH3-W-350.1	☐	DF - nh3	
				10/13/2010		NH3-W-PR	☐	DF - nh3	
1009508-005E				10/13/2010		3005A-DIS-PR	☐	DF - dis met	2
				10/13/2010		6010C-DIS	☑	DF - dis met	
	SEL Analytes: AL B CA FE MG MO K NA								
				10/13/2010		6020-DIS	☑	DF - dis met	
	SEL Analytes: AS CD CU PB MN SE ZN								
				10/13/2010		HARD-2340B	☐	DF - dis met	
1009508-005F				10/13/2010		3005A-ICPMS-PR	☐	DF - total met	1
				10/13/2010		6010C-W	☑	DF - total met	
	SEL Analytes: FE								

WORK ORDER Summary

Work Order: **1009508**

9/29/2010

Client: Carbon Resources
Client ID: CAR300
Project: Scofield Baseline / Surface Water Monitoring
Comments: QC 2+, EDD;

Contact: Brad Lindsay
QC Level: LEVEL II+

WO Type: Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1009508-005F	Aspen Spring	9/28/2010 5:45:00 PM	9/29/2010 8:02:00 AM	10/13/2010	Aqueous	6020-W	☑	DF - total met	1
	SEL Analytes: MN								

Client CARBON RESOURCES c/o ROCK LOGIC
Address PO BOX 544
CEDAREDGE CO 81413
City State Zip
Phone (435) 851-9044 Fax
Contact BRAD LINDSAY
E-mail ROCKLOGICCONSULTING@GMAIL.COM
Project Name SCOFIELD BASELINE
Project Number/P.O.#
Sampler Name BRAD LINDSAY

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115

CHAIN OF CUSTODY

(801) 263-8686
(888) 263-8686
Fax (801) 263-8687
Email:awal@awal-labs.com

Lab Sample Set # 1009508
Page 1 of 1

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED: TABLE 4	TABLE 3									COMMENTS
CR-10-12	9/28/10 / 11:00	W	6	✓										1009511
CR-10-11	/ 14:15		6	✓										
MUD CREEK	/ 12:00		7		✓									
SULFUR SPRING	/ 12:35		7		✓									
RES-1	/ 12:50		7		✓									1009508
MILLER OUTLET	/ 13:20		7		✓									
ASPEN SPRING	/ 17:45		7		✓									

QC LEVEL: 1 2 2+ 3 3+ 4

Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME BRAD LINDSAY	Time 19:30	PRINT NAME JEFFREY LINDSAY	Time 19:30
Relinquished By: Signature	Date 9/29/10	Received By: Signature	Date 9/29/10
PRINT NAME JEFFREY LINDSAY	Time 8:02	PRINT NAME	Time 8:02
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:
PLEASE FILTER
TABLE 4 SHOULD BE TITLED "GROUND WATER MONITORING..."
TABLE 3 SHOULD BE TITLED "SURFACE WATER MONITORING..."

59.25 SLIP

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes: on ice
3 Temperature 3.5
4 Received Broken/Leaking (Improperly Sealed) Y N
Notes:
5 Properly Preserved Y N
Checked at Bench Y N
Notes:
6 Received Within Holding Times Y N
Notes:

COC Tape Was:
1 Present on Outer Package Y N NA
2 Unbroken on Outer Package Y N NA
3 Present on Sample Y N NA
4 Unbroken on Sample Y N NA

Discrepancies Between Sample Labels and COC Record? Y N
Notes:

TABLE 3

½ gallon HDPE
1 L HDPE
1 L HDPE
1 500 mL HNO3
1 250 mL H2SO4
1 amber L HCL

Utah Division of Oil, Gas & Mining
Surface Water Monitoring Recommendations
Baseline, Operational and Post-mining

FIELD MEASUREMENTS			REPORTED AS
*	-	Water level or Flow	Depth, Flow
*	-	pH	Standard units
*	-	Specific Conductivity	umhos/cm @ 25° C
*	-	Dissolved Oxygen	mg/l
*	-	Temperature	°C

LABORATORY MEASUREMENTS			
*	-	Total Dissolved Solids	mg/l
*	-	Total Settleable Solids	(UPDES)
*	-	Total Suspended Solids	mg/l
*	-	Total Hardness ($CaCO_3$)	mg/l
*	-	Total Alkalinity	mg/l
	-	Acidity	mg/l
	-	Aluminum (Dissolved)	mg/l
	-	Arsenic (Dissolved)	mg/l
	-	Boron (Dissolved)[1]	mg/l
*	-	Carbonate	mg/l
*	-	Bicarbonate	mg/l
	-	Cadmium (Dissolved)	mg/l
*	-	Calcium (Dissolved)	mg/l
*	-	Chloride	mg/l
	-	Copper (Dissolved)	mg/l
*	-	Iron (Dissolved)	mg/l
*	-	Iron (Total)	mg/l
	-	Lead (Dissolved)	mg/l
*	-	Magnesium (Dissolved)	mg/l
*	-	Manganese (Dissolved)	mg/l
*	-	Manganese (Total)	mg/l
	-	Molybdenum (Dissolved)	mg/l
	-	Ammonia	mg/l
	-	Nitrates	mg/l
	-	Nitrites	mg/l
*	-	Potassium (Dissolved)	mg/l
	-	Phosphates(Ortho)	mg/l
	-	Selenium[1] (Dissolved)	mg/l
*	-	Sodium (Dissolved)	mg/l
*	-	Sulfate	mg/l
	-	Zinc (Dissolved)	mg/l
*	-	Oil & Grease[2]	mg/l
*	-	Cations	meq/l
*	-	Anions	meq/l

[1] Parameters should be analyzed for baseline at all sites and included as operational at waste rock sites.
[2] O&G to be collected above and below mine sites.
\- Parameters recommended for Baseline monitoring.
* Parameters recommended for Operational and Post-mining monitoring unless amended as per section 5E above.

½ gallon HDPE

Sample Set: 1009508

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except
Ammonia	pH <2 H_2SO_4	✓															
COD	pH <2 H_2SO_4																
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3	✓															
NO_2 & NO_3	pH <2 H_2SO_4																
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL	✓															
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) Do Not dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation