

0074

Canyon Fuel Company, LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542



July 8, 2005

Ms. Pamela Grubaugh-Littig
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Janeing
C/007/0039

RE: Refuse Pile Amendment - Waste Analyses
Dugout Canyon Mine, Canyon Fuel Company, LLC, C/007/039, Carbon County, Utah

Dear Ms. Grubaugh-Littig:

Attached please find four copies of revisions to the Refuse Pile Amendment which is a stand alone amendment in it's own binder. The amendment includes analysis results to be incorporated into RA Attachment 5-4 and a revision to a single page requesting an increase in sample quantity.

A copy of this submittal has been delivered to the Price field office.

Thank you for your assistance and if you have any questions please call me at (435) 636-2869.

Sincerely yours,

Vicky S. Miller

Vicky S. Miller

cc: Dave Spillman
Pete Hess

RECEIVED

JUL 08 2005

DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: Canyon Fuel Company, LLC

Mine: Dugout Canyon Mine

Permit Number: C/007/039

Title: Refuse Pile Amendment - Waste Rock Analyses

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

Instructions: If you answer yes to any of the first eight (gray) 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?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

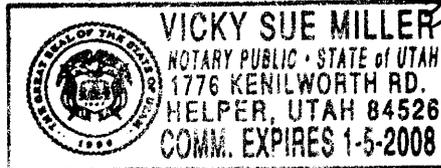
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein

David Spillman
Print Name

David Spillman, Engineering Manager
Sign Name, Position, Date

Subscribed and sworn to before me this 8 day of July, 2005

Vicky Sue Miller
Notary Public



My commission Expires: 1-5, 2008
Attest: State of UTAH } ss:
County of CARBON

<p>For Office Use Only:</p>	<p>Assigned Tracking Number:</p>	<p>Received by Oil, Gas & Mining</p> <p style="font-size: 1.5em; font-weight: bold;">RECEIVED</p> <p style="font-size: 1.2em; font-weight: bold;">JUL 08 2005</p> <p>DIV. OF OIL, GAS & MINING</p>
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APPLICATION FOR COAL PERMIT PROCESSING

Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Canyon Fuel Company, LLC

Mine: Dugout Canyon Mine

Permit Number: C/007/039

Title: Refuse Pile Amendment -Waste Rock Analyses

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

<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	Chapter 5, Text Page 5-19
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	RA Attachment 5-4 add information to the back of existing data
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

7/8/05

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DIV. OF OIL, GAS & MINING

Canyon Fuel Company, LLC
Dugout Canyon Mine

Refuse Pile Amendment
July 2005 ~~September 2003~~

CHAPTER 5
ENGINEERING

2,000 cubic yards of material through the third quarter of 2005 and one sample per 5,000 cubic yards of material, thereafter. These samples will be analyzed for the parameters listed in Table 6 of the Division's topsoil and overburden guidelines (Leatherwood and Duce, 1988). Analyses reports of the sampled waste rock will be submitted with the annual report.

Should a problem be identified, a mitigation plan will be prepared and submitted to the Division for approval. All identified potential acid or toxic-forming materials will be buried after the material handling plan is approved by the Division.

Copies of the toxicity/acid-base results from the samples collected at the Dugout Canyon Mine are presented in RA Attachment 5-4 and Appendix 5-7 of the approved M&RP.

537 Regraded Slopes

537.100 Division Approval

No mining or reclamation activities will be conducted in the refuse pile permit area that require approval of the Division for alternative specifications or for steep cut slope.

537.200 Regrading of Settled and Revegetated Fills

Upon completion of the filling of the refuse pile, the site will be reclaimed. The refuse fill will be constructed in a prudent manner to ensure that the pile will be stable. Geotechnical analysis of the proposed configuration is presented in RA Attachment 5-2.

Based on the proposed construction plans, the pile will be constructed to achieve the final configuration. ~~Efforts will be made during construction of the site to minimize the south and west facing slopes of the pile in an effort to enhance the revegetation success of these typically dry slopes. Therefore, it is anticipated that little regrading will need to be conducted.~~ Following completion of the construction, the pile surface will be prepared for soil distribution and revegetation according to plans presented in Chapter 2 and 3 of this submittal.

Canyon Fuel Company, LLC
Dugout Canyon Mine

Refuse Pile Amendment
July 2005 ~~September 2003~~

**RA ATTACHMENT 5-4
WASTE ROCK ANALYSIS**

Canyon Fuel Company, LLC
Dugout Canyon Mine

Refuse Pile Amendment
July 2005

**RA ATTACHMENT 5-4
WASTE ROCK ANALYSIS**

Soil Analysis Report

Canyon Fuel Co

Dugout Mine

P.O. Box 1029

Wellington, UT 84542

Client Project ID: Dugout Canyon Mine

Date Received: 03/23/05

Set #0105S01744

Report Date: 04/08/05

Lab Id	Sample Id	pH s.u.	Saturation %	EC @ 25°C dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	SAR	Sand %	Silt %	Clay %	Texture
1105S01744	12-3-04A	6.6	46.0	1.59	8.44	7.19	1.25	0.45	88.0	8.0	4.0	SAND
1105S01745	12-3-04B	6.9	46.1	1.68	8.49	7.01	1.15	0.41	84.0	12.0	4.0	LOAMY SAND
1105S01746	12-6-04A	7.0	41.4	1.80	9.31	7.77	1.25	0.43	86.0	10.0	4.0	LOAMY SAND
1105S01747	12-6-04B	6.7	40.0	1.98	10.7	8.98	1.45	0.46	84.0	10.0	6.0	LOAMY SAND
1105S01748	12-07-04A	6.8	42.9	2.04	11.2	9.19	1.16	0.36	87.0	9.0	4.0	LOAMY SAND
1105S01749	12-07-04B	6.9	43.1	1.86	9.94	8.10	1.07	0.35	88.0	8.0	4.0	SAND
1105S01750	12-9-04A	6.8	37.3	2.50	14.8	11.3	1.27	0.35	84.0	10.0	6.0	LOAMY SAND
1105S01751	12-9-04B	6.9	38.5	2.36	14.5	11.0	1.20	0.33	84.0	12.0	4.0	LOAMY SAND
1105S01752	12-16-04A	7.3	37.8	2.64	16.4	12.9	1.37	0.36	86.0	10.0	4.0	LOAMY SAND
1105S01753	12-16-04B	7.1	40.2	2.19	12.5	10.5	1.16	0.34	86.0	9.0	5.0	LOAMY SAND
1105S01754	12-29-04	7.1	39.7	1.56	6.96	7.39	1.31	0.49	86.0	10.0	4.0	LOAMY SAND
1105S01755	12-20-04A	7.2	37.3	2.01	11.5	9.52	1.11	0.34	84.0	12.0	4.0	LOAMY SAND
1105S01756	12-20-04B	7.1	37.6	2.35	14.3	11.3	1.26	0.35	86.0	10.0	4.0	LOAMY SAND
1105S01757	12-21-04A	6.9	40.6	1.89	10.0	8.89	1.14	0.37	87.0	9.0	4.0	LOAMY SAND
1105S01758	12-21-04B	7.2	37.6	1.87	10.1	8.93	1.12	0.36	84.0	12.0	4.0	LOAMY SAND

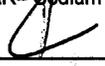
These results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2Osol= 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, Neut. Pot.= Neutralization Potential

Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed By:


Joey Sheeley, Soils Lab Supervisor

Report ID: 010501744

1673 Terra Avenue
Sheridan, WY 82801

Soil Analysis Report

Canyon Fuel Co

Dugout Mine

P.O. Box 1029

Wellington, UT 84542

Page 2 of 12

Client Project ID: Dugout Canyon Mine

Date Received: 03/23/05

Set #0105S01744

Report Date: 04/08/05

Lab Id	Sample Id	Coarse Fragments %	Field Capacity %	Wilt Point %	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Boron ppm	Nitrogen Nitrate ppm	Selenium ppm	TKN %
105S01744	12-3-04A	24.3	17.5	4.9	0.07	0.01	0.48	0.20	0.04	0.79
105S01745	12-3-04B	22.9	17.6	4.7	0.07	0.02	0.40	0.14	0.04	0.56
105S01746	12-6-04A	19.5	20.3	5.2	0.07	0.02	0.50	0.12	0.04	0.96
105S01747	12-6-04B	20.2	22.1	5.1	0.08	0.02	0.38	0.10	0.04	0.53
105S01748	12-07-04A	27.6	16.1	4.3	0.06	0.01	0.54	0.12	0.08	0.83
105S01749	12-07-04B	32.6	16.6	4.6	0.07	0.02	0.44	0.10	0.06	0.55
105S01750	12-9-04A	36.9	21.9	4.9	0.08	0.03	0.48	0.10	0.08	0.42
105S01751	12-9-04B	30.2	17.6	5.1	0.07	0.02	0.46	0.10	0.08	0.79
105S01752	12-16-04A	35.3	17.7	4.8	0.07	0.02	0.40	0.08	0.06	0.31
105S01753	12-16-04B	35.2	18.6	5.2	0.07	0.02	0.36	0.12	0.06	1.16
105S01754	12-29-04	14.7	22.1	4.6	0.08	0.03	0.42	0.08	0.02	0.39
105S01755	12-20-04A	30.6	19.2	4.7	0.07	0.03	0.26	0.06	0.04	0.67
105S01756	12-20-04B	32.4	17.8	4.7	0.07	0.02	0.36	0.08	0.04	0.59
105S01757	12-21-04A	33.1	20.0	4.7	0.08	0.03	0.36	0.10	0.04	0.40
105S01758	12-21-04B	31.1	18.5	4.7	0.07	0.03	0.42	0.08	0.04	0.86

These results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated/Paste Extract, H2OSol= 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, Neut. Pot.= Neutralization Potential

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Reviewed By:

Joey Sheeley, Soils Lab Supervisor

Report ID: 010501744

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Soil Analysis Report

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Page 3 of 12

Client Project ID: Dugout Canyon Mine

Date Received: 03/23/05

Set #0105S01744

Report Date: 04/08/05

Lab Id	Sample Id	TOC %	Total Sulfur %	T.S. AB t/1000t	Neutral. Pot. t/1000t	T.S. ABP t/1000t
105S01744	12-3-04A	71.5	0.61	19.1	18.0	-1.06
105S01745	12-3-04B	70.1	0.64	20.0	18.2	-1.81
105S01746	12-6-04A	64.1	0.69	21.6	19.9	-1.67
105S01747	12-6-04B	62.7	0.69	21.6	20.5	-1.02
105S01748	12-07-04A	65.6	0.70	21.9	20.0	-1.83
105S01749	12-07-04B	64.2	0.71	22.2	21.6	-0.60
105S01750	12-9-04A	57.6	0.64	20.0	17.3	-2.71
105S01751	12-9-04B	56.0	0.65	20.3	18.6	-1.74
105S01752	12-16-04A	60.7	0.55	17.2	21.2	4.04
105S01753	12-16-04B	54.0	0.56	17.5	21.6	4.06
105S01754	12-29-04	51.5	0.52	16.2	31.2	15.0
105S01755	12-20-04A	51.9	0.56	17.5	21.2	3.66
105S01756	12-20-04B	51.8	0.56	17.5	20.3	2.78
105S01757	12-21-04A	52.7	0.55	17.2	32.3	15.1
105S01758	12-21-04B	52.2	0.50	15.6	31.4	15.8

These results only apply to the samples tested.

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Date Received: 03/23/05

Set #0105S01744

Report Date: 04/08/05

Lab Id	Sample Id	pH s.u.	Saturation %	EC	Calcium meq/L	Magnesium meq/L	Sodium meq/L	SAR	Sand %	Silt %	Clay %	Texture
				@ 25°C dS/m								
05S01759	12-22-04A	7.2	38.2	1.89	10.1	9.36	1.31	0.42	84.0	12.0	4.0	LOAMY SAND
05S01760	12-22-04B	7.3	39.5	1.88	9.21	9.00	1.27	0.42	84.0	12.0	4.0	LOAMY SAND
05S01761	1-4-05A	7.3	40.8	1.40	6.79	6.24	1.29	0.51	86.3	8.7	5.0	LOAMY SAND
05S01762	1-7-05A	7.6	40.1	2.54	17.0	11.2	1.38	0.37	90.0	6.0	4.0	SAND
05S01763	1-13-05A	7.5	36.4	2.40	14.5	11.7	1.76	0.49	87.0	9.0	4.0	LOAMY SAND
05S01764	1-14-05A	7.3	39.0	2.89	21.0	13.2	1.52	0.37	88.0	8.0	4.0	SAND
05S01765	1-15-05A	7.2	39.9	2.85	20.7	13.0	1.35	0.33	86.0	10.0	4.0	LOAMY SAND
05S01766	2-9-05A	7.5	43.1	1.26	4.60	5.58	1.67	0.74	84.0	12.0	4.0	LOAMY SAND
05S01767	2-10-05A	7.5	43.9	1.15	4.13	4.86	1.57	0.74	88.0	8.0	4.0	SAND
05S01768	2-11-05A	7.6	42.5	1.13	3.88	4.72	1.76	0.85	91.0	7.0	2.0	SAND
05S01769	2-28-05A	7.5	40.4	1.40	5.66	5.85	1.64	0.68	89.0	7.0	4.0	SAND
05S01770	3-1-05A	7.5	39.1	1.18	4.13	4.79	1.63	0.77	85.0	9.0	6.0	LOAMY SAND
05S01771	3-2-05A	7.4	36.9	1.69	5.58	7.10	1.82	0.72	83.0	11.0	6.0	LOAMY SAND
05S01772	3-3-05A	7.4	38.5	1.41	5.69	6.07	1.67	0.69	83.0	11.0	6.0	LOAMY SAND
05S01773	3-8-05A	7.7	40.0	1.09	3.15	4.13	2.11	1.11	85.0	9.0	6.0	LOAMY SAND

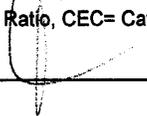
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Joey Sheeley, Soils Lab Supervisor

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Lab Id	Sample Id	Coarse Fragments %	Field Capacity %	Wilt Point %	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Boron ppm	Nitrogen Nitrate ppm	Selenium ppm	TKN %
I05S01759	12-22-04A	10.4	19.0	4.6	0.07	0.02	0.48	0.16	0.04	0.40
I05S01760	12-22-04B	11.4	18.1	4.8	0.07	0.02	0.48	0.22	0.04	0.83
I05S01761	1-4-05A	4.6	20.1	5.3	0.11	0.06	0.52	0.12	0.02	0.48
I05S01762	1-7-05A	48.7	21.6	4.6	0.08	0.02	0.50	0.20	0.02	0.96
I05S01763	1-13-05A	6.1	22.8	5.1	0.08	0.02	0.50	0.16	0.04	0.28
I05S01764	1-14-05A	59.7	20.5	5.1	0.08	0.02	0.34	0.16	0.02	0.73
I05S01765	1-15-05A	60.9	19.2	5.5	0.07	0.02	0.40	0.14	0.02	0.74
I05S01766	2-9-05A	1.9	14.9	6.6	0.10	0.03	0.46	0.16	0.02	0.59
I05S01767	2-10-05A	2.8	23.8	6.3	0.09	0.02	0.38	0.16	0.02	0.64
I05S01768	2-11-05A	2.5	21.8	6.7	0.10	0.03	0.34	0.14	0.02	0.85
I05S01769	2-28-05A	3.8	21.6	6.9	0.10	0.03	0.44	0.24	0.02	0.54
I05S01770	3-1-05A	3.5	22.1	6.6	0.10	0.04	0.42	0.14	0.02	0.56
I05S01771	3-2-05A	3.1	21.8	6.9	0.10	0.03	0.48	0.16	0.02	0.89
I05S01772	3-3-05A	3.7	22.2	7.1	0.10	0.04	0.50	0.16	0.02	0.33
I05S01773	3-8-05A	3.7	19.8	7.4	0.12	0.04	0.66	0.20	0.02	0.42

these results only apply to the samples tested.

bbreviations for extractants: PE= Saturated Paste Extract, H2Osol= water soluble, AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate

bbreviations 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, Neut. Pot.= Neutralization Potential

miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

reviewed By:

Joey Sheeley, Soils Lab Supervisor

Report ID: 010501744

1673 Terra Avenue
Sheridan, WY 82801

Soil Analysis Report
Canyon Fuel Co
Dugout Mine
P.O. Box 1029
Wellington, UT 84542

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Client Project ID: Dugout Canyon Mine
Date Received: 03/23/05

Set #0105S01744
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Lab Id	Sample Id	TOC %	Total Sulfur %	T.S. AB t/1000t	Neutral. Pot. t/1000t	T.S. ABP t/1000t
I05S01759	12-22-04A	53.5	0.53	16.6	26.9	10.4
I05S01760	12-22-04B	52.7	0.55	17.2	26.7	9.52
I05S01761	1-4-05A	61.9	0.49	15.3	20.7	5.42
I05S01762	1-7-05A	60.7	0.54	16.9	25.2	8.31
I05S01763	1-13-05A	49.3	0.48	15.0	38.1	23.1
I05S01764	1-14-05A	57.5	0.53	16.6	28.5	11.9
I05S01765	1-15-05A	57.7	0.55	17.2	27.1	9.90
I05S01766	2-9-05A	67.1	0.54	16.9	18.0	1.10
I05S01767	2-10-05A	72.9	0.51	15.9	18.1	2.16
I05S01768	2-11-05A	71.5	0.52	16.2	14.3	-1.93
I05S01769	2-28-05A	63.7	0.51	15.9	21.9	6.00
I05S01770	3-1-05A	58.7	0.53	16.6	22.4	5.80
I05S01771	3-2-05A	53.7	0.50	15.6	22.8	7.15
I05S01772	3-3-05A	54.2	0.47	14.7	20.5	5.85
I05S01773	3-8-05A	57.1	0.47	14.7	31.0	16.4

these results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2Osol= 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, Neut. Pot.= Neutralization Potential
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Client Project ID: Dugout Canyon Mine

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Lab Id	Sample Id	pH	Saturation	EC	Calcium	Magnesium	Sodium	SAR	Sand	Silt	Clay	Texture
		s.u.	%	@ 25°C dS/m	meq/L	meq/L	meq/L		%	%	%	
105S01774	3-9-05A	7.5	38.8	1.10	3.47	4.23	1.78	0.91	87.0	9.0	4.0	LOAMY SAND
105S01775	3-10-05A	7.6	39.2	1.13	3.31	4.10	2.11	1.09	80.0	14.0	6.0	LOAMY SAND
105S01776	3-11-05A	7.6	38.3	1.40	4.72	5.20	2.53	1.14	82.0	14.0	4.0	LOAMY SAND
105S01777	3-15-05A	7.8	41.0	0.73	1.73	2.00	1.91	1.40	86.0	10.0	4.0	LOAMY SAND

These results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2Osol= 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, Neut. Pot.= Neutralization Potential

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Lab Id	Sample Id	Coarse Fragments %	Field Capacity %	Wilt Point %	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Boron ppm	Nitrogen Nitrate ppm	Selenium ppm	TKN %
105S01774	3-9-05A	4.2	20.0	7.3	0.13	0.06	0.72	0.14	0.02	0.43
105S01775	3-10-05A	5.1	26.2	7.0	0.12	0.04	0.56	0.16	0.02	0.69
105S01776	3-11-05A	4.6	25.2	6.6	0.12	0.02	0.60	0.16	0.02	0.59
105S01777	3-15-05A	5.7	28.5	6.0	0.12	0.04	0.64	0.18	0.02	0.56

These results only apply 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, Neut. Pot.= Neutralization Potential

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Report Date: 04/08/05

Lab Id	Sample Id	TOC %	Total Sulfur %	T.S. AB t/1000t	Neutral. Pot. t/1000t	T.S. ABP t/1000t
105S01774	3-9-05A	56.5	0.49	15.3	23.7	8.38
105S01775	3-10-05A	54.9	0.48	15.0	20.4	5.42
105S01776	3-11-05A	58.6	0.50	15.6	22.4	6.79
105S01777	3-15-05A	67.5	0.52	16.2	14.1	-2.19

These results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2Osol= 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, Neut. Pot.= Neutralization Potential

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Lab Id	Sample Id	pH s.u.	Saturation %	EC @ 25°C dS/m	Calcium meq/L	Magnesium meq/L	Sodium meq/L	SAR	Sand %	Silt %	Clay %	Texture
I105S01761	1-4-05A	7.3	40.8	1.40	6.79	6.24	1.29	0.51	86.3	8.7	5.0	LOAMY SAND
I105S01761D	1-4-05A	7.1	37.9	1.70	8.34	7.48	1.49	0.53	85.0	12.5	2.5	LOAMY SAND
I105S01770	3-1-05A	7.5	39.1	1.18	4.13	4.79	1.63	0.77	85.0	9.0	6.0	LOAMY SAND
I105S01770D	3-1-05A	7.5	38.6	1.07	3.64	4.24	1.47	0.74	89.0	5.0	6.0	SAND
I105S01772	3-3-05A	7.4	38.5	1.41	5.69	6.07	1.67	0.69	83.0	11.0	6.0	LOAMY SAND
I105S01772D	3-3-05A	7.5	41.2	1.16	4.51	4.68	1.35	0.63	85.0	9.0	6.0	LOAMY SAND
I105S01774	3-9-05A	7.5	38.8	1.10	3.47	4.23	1.78	0.91	87.0	9.0	4.0	LOAMY SAND
I105S01774D	3-9-05A	7.5	40.7	0.96	2.83	3.43	1.49	0.84	87.0	7.0	6.0	LOAMY SAND

These results only apply to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2Osol= 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, Neut. Pot.= Neutralization Potential

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Lab Id	Sample Id	Coarse Fragments %	Field Capacity %	Wilt Point %	Available Sodium meq/100g	Exchangeable Sodium meq/100g	Boron ppm	Nitrogen Nitrate ppm	Selenium ppm	TKN %
105S01761	1-4-05A	4.6	20.1	5.3	0.11	0.06	0.52	0.12	0.02	0.48
105S01761D	1-4-05A		22.1	5.1	0.11	0.05	0.56	0.12	0.02	0.33
105S01770	3-1-05A	3.5	22.1	6.6	0.10	0.04	0.42	0.14	0.02	0.56
105S01770D	3-1-05A		20.9	6.1	0.09	0.03	0.50	0.16	0.02	0.38
105S01772	3-3-05A	3.7	22.2	7.1	0.10	0.04	0.50	0.16	0.02	0.33
105S01772D	3-3-05A		18.6	6.1	0.08	0.02	0.58	0.18	0.02	0.54
105S01774	3-9-05A	4.2	20.0	7.3	0.13	0.06	0.72	0.14	0.02	0.43
105S01774D	3-9-05A		16.9	6.7	0.12	0.06	0.52	0.20	0.02	0.36

These results only apply to the samples tested.

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Lab Id	Sample Id	TOC %	Total Sulfur %	T.S. AB t/1000t	Neutral. Pot. t/1000t	T.S. ABP t/1000t
1105S01761	1-4-05A	61.9	0.49	15.3	20.7	5.42
1105S01761D	1-4-05A	59.2	0.49	15.3	22.6	7.34
1105S01770	3-1-05A	58.7	0.53	16.6	22.4	5.80
1105S01770D	3-1-05A	58.1	0.53	16.6	22.1	5.59
1105S01772	3-3-05A	54.2	0.47	14.7	20.5	5.85
1105S01772D	3-3-05A	54.2	0.45	14.1	21.0	6.93
1105S01774	3-9-05A	56.5	0.49	15.3	23.7	8.38
1105S01774D	3-9-05A	56.9	0.49	15.3	23.2	7.93

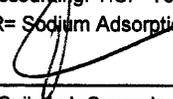
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