

**OGMCOAL - 0250005 Coal Hollow Soil Data**

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**From:** Priscilla Burton  
**To:** knicholes@altoncoal.com; OGMCOAL  
**Date:** 10/3/2012 10:48 AM  
**Subject:** 0250005 Coal Hollow Soil Data  
**Attachments:** Alton CoalS1209052.pdf

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Hi Kirk,

I have looked over your analyses and think that your site would benefit from a low dose of organic fertilizer such as the one you mentioned (Sustane) or Biosol is another. The advantage of these fertilizers over others is they will add organic matter and trace minerals that will encourage bacterial activity in the soil. A similar effect could be achieved by application of composted horse, cow, or poultry manure, if there is a locally available source.

Priscilla

*Priscilla Burton*

Priscilla Burton, CPSSc  
Sr. Environmental Scientist  
Utah Division of Oil Gas & Mining  
319 No. Carbonville Rd, Ste.210  
Price UT 84501  
(435) 613-3733

>>> Kirk Nicholes <knicholes@altoncoal.com> Tuesday, October 02, 2012 3:49 PM >>>

F.Y.I.

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**From:** Karen Secor [mailto:ksecor@imlinc.com]  
**Sent:** Wednesday, September 26, 2012 9:54 AM  
**To:** Kirk Nicholes  
**Subject:** Coal Hollow Soil Data

Hi Kirk,

Attached is N-P-K data for soil samples collected August 30. Please call or email with any questions.

Thanks,

*Karen Secor*

Soil Lab Manager

Inter-Mountain Labs

Phone 307-672-8945

Fax 307-672-6053

Email: [ksecor@imlinc.com](mailto:ksecor@imlinc.com)

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**Date:** 9/26/2012

**CLIENT:** Alton Coal Development, LLC  
**Project:** Coal Hollow Mine  
**Lab Order:** S1209052

**CASE NARRATIVE**  
**Report ID:** S1209052001

Samples North Face West Spoils, North of Ditch 4, and South/Top West Spoils were received on September 5, 2012.

Samples were analyzed using the methods outlined in the following references:

- U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
- American Society of Agronomy, Number 9, Part 2, 1982
- USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
- Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
- New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
- State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
- Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, December 1994
- State of Nevada Modified Sobek Procedure
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

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

Reviewed by: *Karen A Secor*

Karen Secor, Soil Lab Supervisor



**Soil Analysis Report**  
**Alton Coal Development, LLC**

463 North 100 West  
Suite 1  
Cedar City, UT 84721

Report ID: S1209052001

Project: Coal Hollow Mine

Date Reported: 9/26/2012

Date Received: 9/5/2012

Work Order: S1209052

Lab ID	Sample ID	Nitrate	Phosphorus	Available
		(as N)		Potassium
		ppm	ppm	ppm
S1209052-001	South/Top West Spoils	13.9	9.0	298
S1209052-002	North Face West Spoils	11.5	9.2	299
S1209052-003	North of Ditch 4	7.5	12.9	374

These results apply only 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, 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

