Report on Soil Test

Auburn University Soil Testing Laboratory

Auburn University, AL 36849-5411

DSM Design Group, LLC

P O Box 690

Jasper, AL 35502

County:Walker

District:1

Test Date:11/11/09

					SOIL TEST RESULTS				RECOMMENDATIONS			
LAB No.	Sample Designation	Crop	Soil Group*	pH**	Phosphorus P***	Potassium K***	Magnesium Mg***	Calcium Ca***	LIME-STONE	N	P_2O_5	K_2O
					Pounds/Acre				Tons/Acre	Pounds/Acre		
01703	Old Union 2 TS1 See Comment 1 See Comment 2	Revegetation	4	4.2	L 30	L 61	H 94	L 140	4.5	60	60	70
01704	TS2 See Comment 2 See Comment 3	Revegetation	4	4.2	H 87	VL 37	L 45	L 31	2.5	60	0	80
01705	TS3 See Comment 1 See Comment 2	Revegetation	4	4.0	VL 14	L 97	H 134	L 157	4.5	60	80	50
01706	TS4 See Comment 2 See Comment 3	Revegetation	4	4.4	VL 0	VL 34	L 41	L 39	2.0	60	100	80
01707	TS5 See Comment 2 See Comment 3	Revegetation	4	4.3	H 137	VL 27	L 15	L 33	4.5	60	0	90
01708	TS6 See Comment 1 See Comment 2	Revegetation	4	4.2	H 104	L 117	H 158	M 177	4.5	60	0	40
01709	TS7 See Comment 2 See Comment 3	Revegetation	4	4.3	L 34	VL 38	L 49	L 57	4.5	60	50	80

* 1. Sandy soil (CEC ‹ 4.6 $cmol_c kg^{-1}$)

* 2. Loams and Light clays (CEC = 4.6-9.0 $cmol_c kg^{-1}$)

* 3. Clays and soils high in organic matter (CEC > 9.0 $cmol_c kg^{-1}$)

* 4. Clays of the Blackbelt (CEC > 9.0 $cmol_c kg^{-1}$)

** 7.4 or higher - Alkaline - - - - - - - - - - - - - - 6.6-7.3 - Neutral - - - - - - - - - - - - - 6.5 or lower - Acid - - - - - - - - - - - - -5.5 or lower - Strong Acid

*** Extractable nutrients in pounds per acre

If soil group = 1, 2 or 3, Method of Analysis = Mehlich-1. If soil group = 4, Method of Analysis = Miss/Lancaster.

Approved by: Joseph Huluka

Print Date: 03 June 2010

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					Pounds/Acre				Tons/Acre	Pounds/Acre		
01710	TS8 See Comment 2 See Comment 3	Revegetation	4	4.4	M 40	VL 17	L 8	L 0	2.5	60	40	90
01711	TS9 See Comment 2 See Comment 3	Revegetation	4	4.2	VL 6	VL 40	L 29	L 24	4.5	60	90	80
01712	TS10 See Comment 1 See Comment 2	Revegetation	4	4.6	VL 0	L 90	H 211	L 81	3.5	60	100	50
01713	TS11 See Comment 2	Revegetation	4	6.5	VL 0	VL 38	H 105	H 1449	0.0	60	100	80
01714	TS13 See Comment 1 See Comment 2	Revegetation	4	3.9	VL 9	L 58	H 66	L 66	2.5	60	90	70
01715	TS14 See Comment 1 See Comment 2	Revegetation	4	4.1	VL 0	L 111	H 171	H 544	4.5	60	100	40
01716	TS15 See Comment 1 See Comment 2	Revegetation	4	4.6	M 61	L 61	H 113	L 159	3.0	60	40	70

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					Pounds/Acre				Tons/Acre	Pounds/Acre		
01717	TS16 See Comment 2 See Comment 3	Revegetation	4	4.1	M 60	VL 19	L 21	L 13	4.5	60	40	90
01718	TS17 See Comment 2 See Comment 3	Revegetation	4	4.4	M 57	VL 20	L 27	L 22	3.0	60	40	90
01719	TS18 See Comment 1 See Comment 2	Revegetation	4	4.8	VL 3	VL 42	H 93	L 24	4.5	60	100	80
01720	TS19 See Comment 2 See Comment 3	Revegetation	4	4.3	VL 8	VL 17	L 9	L 0	2.5	60	90	90
01721	TS20 See Comment 2 See Comment 3	Revegetation	4	4.6	L 20	VL 36	L 25	L 10	4.5	60	70	80
01722	TS21 See Comment 2 See Comment 3	Revegetation	4	4.5	L 31	VL 22	L 27	L 12	2.0	60	60	90
01723	SP1 See Comment 1 See Comment 2	Revegetation	4	5.3	M 46	M 153	H 1205	H 947	4.5	60	40	40

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LAB No.	Sample Designation	Crop	Soil Group*	pH**	Phosphorus P***	Potassium K***	Magnesium Mg***	Calcium Ca***	LIME-STONE	N	P_2O_5	K_2O
					Pounds/Acre				Tons/Acre	Pounds/Acre		
01724	SP2 See Comment 2	Revegetation	4	6.4	M 39	M 170	H 1066	H 837	0.0	60	50	40
01725	SP3 See Comment 2	Revegetation	4	6.4	L 20	H 239	H 1504	H 2730	0.0	60	70	0
01726	SP4 See Comment 1 See Comment 2	Revegetation	4	5.2	VL 6	M 125	H 661	H 548	2.5	60	90	40
01727	SP12 See Comment 2	Revegetation	4	7.7	VL 14	H 310	H 940	H 1889	0.0	60	80	0

Comment No.1: Soil acidity (low pH) can be corrected with either dolomitic or calcitic lime.

Comment No.2: For perennial winter grass pasture, apply N, P, and K as recommended by September 1. Repeat N application in February. If grass is to be cut for hay, in February apply up to 40 pounds N and 35 pounds K2O per ton of anticipated hay yield.

Comment No.3: Both soil acidity and low magnesium can be corrected by applying dolomitic lime at the recommended rate.

The number of samples processed in this report is: 25

For further information call your county agent: (205) 221-3392

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Approved by: Joseph Huluka

Print Date: 03 June 2010

Mine Analysis Report
Auburn University
Soil Testing Lab

DSM Design Group,LLC

PO Box 690

Jasper Al 35502

County: Walker

ALFA Agricultural Service & Research Building
961 S. Donahue Dr.
Auburn University, Auburn, AL 36849-5411
Phone (334)844-3958
Soillab@auburn.edu

Mine Name and Location: B'Ham Coal & Coke Old Union #2 Mine

Special Analysis #: 10.S0452-S0476

		MULTIPLE SULFUR ANALYSES								
		%	%	%	%	%	OM	NO_3-N	Neutralizing Potential	
Lab I.D.	Sample I.D.	1rst	2nd	3rd	4rth	Ave	%	ppm	Tons $CaCO_3$/1000 Tons material	max pot.acid.
1703	TS-1	0.0164	0.0166	0.0160	0.0155	0.0161	3.2	3.1	<1.0	0.50
1704	TS-2	0.0114	0.0110	0.0093	0.0101	0.0104	1.7	2.4	<1.0	0.33
1705	TS-3	0.0101	0.0104	0.0110	0.0110	0.0106	2.2	3.4	<1.0	0.33
1706	TS-4	0.0656	0.0488	0.0429	0.0365	0.0485	1.7	2.6	<1.0	1.51
1707	TS-5	0.0344	0.0335	0.0325	0.0312	0.0329	1.7	3.6	<1.0	1.03
1708	TS-6	0.0335	0.0325	0.0335	0.0323	0.0329	2.1	2.6	<1.0	1.03
1709	TS-7	0.0536	0.0422	0.0355	0.0313	0.0406	2.0	2.5	<1.0	1.27
1710	TS-8	0.0293	0.0252	0.0224	0.0218	0.0247	1.4	2.6	<1.0	0.77
1711	TS-9	0.0248	0.0228	0.0210	0.0196	0.0221	2.0	2.5	<1.0	0.69
1712	TS-10	0.0490	0.0420	0.0370	0.0340	0.0405	1.3	2.6	<1.0	1.27
1713	TS-11	0.0310	0.0260	0.0270	0.0240	0.0270	1.4	5.0	<1.0	0.84
1714	TS-13	0.0230	0.0190	0.0180	0.0180	0.0195	0.9	3.7	<1.0	0.61
1715	TS-14	0.0170	0.0180	0.0170	0.0180	0.0175	0.5	3.1	<1.0	0.55
1716	TS-15	0.0460	0.0370	0.0310	0.0290	0.0358	3.3	5.2	<1.0	1.12
1717	TS-16	0.0210	0.0190	0.0170	0.0180	0.0188	1.5	4.5	<1.0	0.59
1718	TS-17	0.0180	0.0190	0.0170	0.0180	0.0180	2.4	4.5	<1.0	0.56
1719	TS-18	0.0150	0.0160	0.0150	0.0160	0.0155	0.3	3.0	<1.0	0.48
1720	TS-19	0.0140	0.0313	0.0254	0.0225	0.0233	0.6	3.2	<1.0	0.73
1721	TS-20	0.0251	0.0249	0.0224	0.0230	0.0239	2.6	3.6	<1.0	0.75
1722	TS-21	0.0194	0.0169	0.0179	0.0153	0.0173	2.1	3.6	<1.0	0.54
1723	SP-1	0.0600	0.0911	0.0953	0.0702	0.0791	8.1	5.8	3.79	2.47
1724	SP-2	0.0326	0.0503	0.0401	0.0374	0.0401	2.6	3.0	4.55	1.25
1725	SP-3	0.0599	0.0576	0.0815	0.0724	0.0678	3.3	2.4	9.60	2.12
1726	SP-4	0.0586	0.0558	0.0623	0.0658	0.0606	3.0	2.8	3.29	1.89
1727	SP-12	0.0418	0.0395	0.0400	0.0366	0.0395	2.9	15.8	7.08	1.23

Mine Name and Location: B'Ham Coal & Coke Old Union #2 Mine						Special Analysis #: 10.S0452-S0476					
		%	%	%		H2O avail.					
Lab I.D.	Sample I.D.	Sand	Silt	Clay	Textural Class	cm^3/cm^3					
1703	TS-1	60.9	17.8	21.25	Sandy Clay Loam	0.10					
1704	TS-2	57.5	17.5	25.00	Sandy Clay Loam	0.10					
1705	TS-3	33.1	29.4	37.50	Clay Loam	0.13					
1706	TS-4	70.0	7.5	22.50	Sandy Clay Loam	0.09					
1707	TS-5	57.2	20.6	22.19	Sandy Clay Loam	0.10					
1708	TS-6	36.9	33.4	29.69	Clay Loam	0.13					
1709	TS-7	57.5	17.5	25.00	Sandy Clay Loam	0.10					
1710	TS-8	79.4	15.6	5.00	Loamy Sand	0.09					
1711	TS-9	71.9	18.1	10.00	Sandy Loam	0.10					
1712	TS-10	47.2	37.8	15.00	Loam	0.13					
1713	TS-11	65.0	27.5	7.50	Sandy Loam	0.11					
1714	TS-13	72.5	0.0	27.50	Sandy Clay Loam	0.08					
1715	TS-14	47.5	25.0	27.50	Sandy Clay Loam	0.12					
1716	TS-15	66.3	16.3	17.50	Sandy Loam	0.10					
1717	TS-16	81.9	3.1	15.00	Sandy Loam	0.08					
1718	TS-17	71.9	13.1	15.00	Sandy Loam	0.09					
1719	TS-18	74.4	13.1	12.50	Sandy Loam	0.09					
1720	TS-19	80.0	17.5	2.50	Loamy Sand	0.09					
1721	TS-20	57.5	35.0	7.50	Sandy Loam	0.12					
1722	TS-21	62.5	35.0	2.50	Sandy Loam	0.13					
1723	SP-1	42.8	34.7	22.50	Loam	0.13					
1724	SP-2	55.0	24.7	20.31	Sandy Clay Loam	0.11					
1725	SP-3	30.0	42.8	27.19	Clay Loam	0.15					
1726	SP-4	41.9	30.6	27.50	Clay Loam	0.13					
1727	SP-12	50.6	28.8	20.63	Loam	0.12					