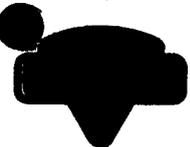


015/015 #2  
  
Consolidation Coal Company  
Mid-Continent Region  
12755 Olive Boulevard  
St. Louis, Missouri 63141  
(314) 275-2300

November 6, 1991

Mr. Daron R. Haddock  
Utah Div. Oil, Gas & Mining  
355 W. North Temple  
3 Triad Center - Suite 350  
Salt Lake City, UT 84180-1203

RECEIVED

NOV 12 1991

Re: Backfilling Fuel Tank Excavation, Emery  
Deep Mine, ACT/015/015-91C, Folder #3

DIVISION OF  
OIL GAS & MINING

Dear Mr. Haddock:

Please consider this letter as our response to several conditions per your September 16, 1991 letter concerning our submittal regarding backfilling an excavation left by the removal of fuel tanks at the Emery Mine.

The conditions to be resolved with this letter are as follows:

CONDITION 1) THE MATERIAL USED FOR BACKFILL MUST BE RESAMPLED AND SHOWN TO BE NONTOXIC AND NONACID FORMING. NO TOXIC OR ACID FORMING MATERIAL MAY BE PLACED IN THE EXCAVATION.

RESPONSE 1) The proposed fuel tank excavation backfill is material that is periodically cleaned out of the mine. The technical review memo states that regulation R614-301-536.300 is applicable. To comply with R614-301-536.300 three samples of the clean-out material pile were sent to an analytical laboratory. The parameters to be analyzed were selected by your soils reclamation specialist using recommended laboratory methods per your agency's "Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining" issued April 1988.

The attached analysis indicates that the material is neither toxic nor acid forming and can be properly disposed of in the excavation.

CONDITION 2) TO REMAIN IN COMPLIANCE WITH REGULATION R614-301-553.250 THE FINAL RECLAMATION PLAN MUST INDICATE THAT FOUR FEET OF NON-TOXIC, NON-ACID MATERIAL WILL BE PLACED OVER THE MINE WASTE IN ITS PERMANENT DISPOSAL ON THE PAD. THIS WILL REQUIRE INCREMENTAL SAMPLING OF THE TOP FOUR FEET OF COVER MATERIAL FOR TOXICITY/ACIDITY AT THE TIME OF FINAL RECLAMATION.

Mr. Daron Haddock  
November 6, 1991  
Page 2

RESPONSE 2) The clean-out material itself does not qualify as final cover material since it may be combustible. To comply with regulation R614-301-553.250, Consolidation Coal Company has elected to locate final cover material and cover the excavation area at this time. As possible cover material, two adjacent soil piles were sampled. The big pile was sampled at two locations (Sample BE) (Sample BW) and the small pile at one location (Sample S). The attached soil analyses indicate that both piles qualify as final cover material per regulation R614-301-553.252.

The excavation hole left by the removal of fuel tanks at the Emery Mine will be backfilled with stockpiled mine clean-out material and covered with four (4) feet of stockpiled soil material. Final reclamation of this site in terms of soil cover will be complete.

CONDITION 3) THE COVER MATERIAL IS DESCRIBED IN THE MRP ON PAGE 20 OF CHAP. IV-C AND AGAIN IN APP VII-2 OF CHAPTER VII. HOWEVER, THESE PAGES IN THE MRP NEED TO BE REVISED TO CLARIFY SAMPLING DEPTHS SO THAT THE DEPTH OF THE TOP, MIDDLE AND BOTTOM LAYERS CAN BE DETERMINED. IF RECORDS ARE NOT CLEAR ON THE DEPTHS FOR TOP, MIDDLE AND BOTTOM LAYERS, THEN SAMPLING MUST BE REPEATED. THIS TIME ONLY pH AND EC AND SAR NEED BE RUN.

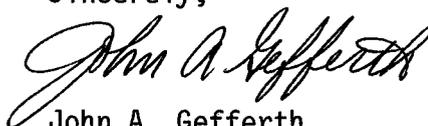
RESPONSE 3) The noted discrepancy on Page 20 of Chapter IV-C and Appendix VII-2 of Chapter VII is not applicable to this request. Once the mine reopens, work will commence on the approved waste disposal project. At that time, we will develop and implement a new sampling plan of the proposed cover material.

CONDITION 4) SOIL/GROUNDWATER SAMPLING PERFORMED IN COMPLIANCE WITH UNDERGROUND STORAGE TANK SITE ASSESSMENT PROTOCOL R451-205-1 MUST BE PROVIDED TO THE DIVISION.

RESPONSE 4) The results of the soil/groundwater sampling performed in compliance with underground storage tank site assessment protocol R451-205-1 are attached.

Also, per your request, please find seven (7) additional copies of our August 20, 1991 submittal for distribution to other agencies. If additional information is needed prior to approval, please contact John Bauer at our St. Louis Office.

Sincerely,



John A. Gefferth  
Group Leader - Permits

/vms  
Enclosures

# A&L Analytical Laboratories, Inc.



411 North Third Street • Memphis, TN 38105-2723 • (901) 527-2780 • FAX: (901) 526-1031  
ACCT # 4839

## Corrected Report

REPORT NUMBER  
291-001A

November 6, 1991

Consolidation Coal Co.  
Attn: John Bauer  
12755 Olive Blvd.  
St. Louis, MO 63141

Grower: Emery Mine

| LABORATORY NUMBER:                                     | 33142 | 33143   | 33144 |
|--|-------|---------|-------|
| SAMPLE I.D.:   | North | Central | South |
| Na (ppm) (Saturated Paste)                             | 1260  | 2540    | 3840  |
| pH (Saturated Paste)                                   | 7.5   | 7.3     | 7.6   |
| NO <sub>3</sub> -N ppm (water extractable)             | < 1   | < 1     | < 1   |
| B ppm  | 2.9   | 2.0     | 2.0   |
| Sol Salts (Saturated Paste)                            | 12.0  | 20.0    | 21.1  |
| Na Exch (ppm){0.5N Mg(NO <sub>3</sub> ) <sub>2</sub> } | 39    | 38      | 50    |
| CEC (meq/100g) Page Method                             | 6.5   | 7.1     | 6.1   |
| ESP  | none  | none    | none  |
| Organic Carbon (Titration) %                           | 13.2  | 13.4    | 12.9  |
| Pyrite (% S)   | 0.12  | 0.14    | 0.10  |
| Neutralization Potential T/kT                          | 124   | 125     | 115   |
| Potential Acidity T/kT                                 | 3.8   | 4.4     | 3.1   |
| Acid Base Acct T/kT                                    | 120.2 | 120.6   | 111.9 |

A & L Analytical Laboratories, Inc.

  
Richard Large, PhD Managing Director

RL/dlh

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ACCT # 4839

## Corrected Report

REPORT NUMBER  
287-0062

November 6, 1991

Consolidation Coal Co.  
Attn: John Bauer  
12755 Olive Blvd.  
St. Louis, MO 63141

Grower: Emery Mine  
Stockpiled Cover Mat

LABORATORY NUMBER:

7958

7959

7960

SAMPLE I.D.:

BE

BW

S

|                               |        |      |      |
|-------------------------------|--------|------|------|
| Na (ppm) (Saturated Paste)    | 481    | 342  | 914  |
| pH (Saturated Paste)          | 8.1    | 8.0  | 7.9  |
| Sol Salts (Saturated Paste)   | 4.39   | 4.46 | 5.76 |
| Na Exch (ppm) (0.5M Mg NO3)   | 75     | 123  | 184  |
| CEC (meq/100g) Page Method    | 4.5    | 6.4  | 5.0  |
| ESP                           | none   | none | none |
| Organic Carbon (Titration) %  | 0.2    | 0.6  | 2.2  |
| Pyrite (% S)                  | < 0.02 | 0.04 | 0.04 |
| Neutralization Potential T/kT | 134    | 150  | 117  |
| Potential Acid T/kT           | < 0.5  | 1.3  | 1.3  |
| Acid Base Acct T/kT           | 134    | 149  | 116  |

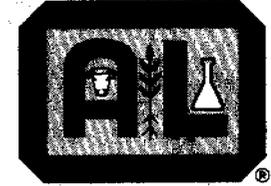
A & L Analytical Laboratories, Inc.

  
Richard Large, PhD Managing Director

RL/dlh

REPORT NUMBER 287-0062

# A&L Analytical Laboratories, Inc.



411 North Third Street • Memphis, TN 38105-2723 • (901) 527-2780 • FAX: (901) 526-1031

ACCT# 04839

SAMPLES  
SUBMITTED  
BY:

SEND  
TO:

CONSOLIDATION COAL CO.  
ATTN: JOHN BAUER  
12755 OLIVE BLVD.  
ST. LOUIS, MO 63141

GROWER:

EMERY MINE  
STOCKPILED COVER MAT.

DATE OF REPORT 10/15/91 PAGE 1

## SOIL ANALYSIS REPORT

| SAMPLE NUMBER | LAB NUMBER | ORGANIC MATTER |            | PHOSPHORUS                 |                                      | POTASSIUM | MAGNESIUM | CALCIUM | SODIUM | pH      |              | Cation Exchange C.E.C. meq/100g | COMPUTED PERCENT BASE SATURATION |      |      |     |      |
|---------------|------------|----------------|------------|----------------------------|--------------------------------------|-----------|-----------|---------|--------|---------|--------------|---------------------------------|----------------------------------|------|------|-----|------|
|               |            | % RATE         | ENR lbs./A | P <sub>1</sub> (Weak Bray) | P <sub>2</sub> NaHCO <sub>3</sub> -P | K         | Mg        | Ca      | Na     | SOIL pH | BUFFER INDEX |                                 | % K                              | % Mg | % Ca | % H | % Na |
| BE            | 7958       | 0.3            | 30         | 4                          | 33                                   | 291       | 192       | 4660    | 272    | 8.1     |              |                                 | 2.8                              | 6.0  | 86.8 |     | 4.4  |
| BW            | 7959       | 0.6            | 35         | 3                          | 20                                   | 142       | 242       | 2670    | 290    | 8.0     |              |                                 | 2.1                              | 11.9 | 78.6 |     | 7.4  |
| S             | 7960       | 1.8            | 60         | 9                          | 43                                   | 122       | 233       | 3920    | 233    | 7.9     |              |                                 | 1.4                              | 8.5  | 85.7 |     | 4.4  |

(SEE EXPLANATION ON BACK)

| SAMPLE NUMBER | NITRATE            | SULFUR | ZINC | MANGANESE | IRON | COPPER | BORON | EXCESS LIME RATE | SOLUBLE SALTS | REMARKS |
|---------------|--------------------|--------|------|-----------|------|--------|-------|------------------|---------------|---------|
|               | NO <sub>3</sub> -N | S      | Zn   | Mn        | Fe   | Cu     | B     |                  |               |         |
| BE            |                    |        |      |           |      |        | 2.3   | H                | 2.5           |         |
| BW            |                    |        |      |           |      |        | 2.2   | H                | 1.2           |         |
| S             |                    |        |      |           |      |        | 2.8   | M                | 2.3           |         |

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

A & L ANALYTICAL LABORATORIES, INC.

BY

RICHARD LARGE

\* CODE TO RATING: VERY LOW (VL), LOW (L), MEDIUM (M), HIGH (H), VERY HIGH (VH), AND NONE (N)  
 \*\* ENR - ESTIMATED NITROGEN RELEASE  
 \*\*\* MULTIPLY THE RESULTS IN ppm BY 2 TO CONVERT TO LBS. PER ACRE OF THE ELEMENTAL FORM

\*\*\*\* MULTIPLY THE RESULTS IN ppm BY 46 TO CONVERT TO LBS. PER ACRE P<sub>2</sub>O<sub>5</sub>  
 \*\*\*\*\* MULTIPLY THE RESULTS IN ppm BY 2.4 TO CONVERT TO LBS. PER ACRE K<sub>2</sub>O  
 MOST SOILS WEIGH TWO (2) MILLION POUNDS (DRY WEIGHT) FOR AN ACRE OF SOIL 6-2/3 INCHES DEEP

# A&L Analytical Laboratories, Inc.

411 North Third Street • Memphis, TN 38105-2723 • (901) 527-2780 • FAX: (901) 526-1031



287-0062

REPORT NUMBER

SEND TO:

-----  
CONSOLIDATION COAL CO.  
ATTN: JOHN BAUER  
12755 OLIVE BLVD.  
ST. LOUIS MO 63141

GROWER:

-----  
EMERY MINE  
STOCKPILED COVER MAT.

SUBMITTED BY:

-----

DATE 10/15/91

PAGE 1

| SAMPLE IDENTIFICATION | LAB NUMBER | PERCENT SAND | PERCENT SILT | PERCENT CLAY | TEXTURAL CLASSIFICATION |
|-----------------------|------------|--------------|--------------|--------------|-------------------------|
| -----                 | -----      | -----        | -----        | -----        | -----                   |
| BE                    | 07958      | 66           | 22           | 12           | SANDY LOAM              |
| BW                    | 07959      | 53           | 33           | 14           | SANDY LOAM              |
| S                     | 07960      | 75           | 15           | 10           | SANDY LOAM              |



**Construction  
General Contracting**

**P.O. Box 282  
Price, Utah 84501  
Phone 637-3495**

**Site Planning  
Subdivision Planning  
Land Development**

August 24, 1991

Bureau of Environmental Response and Remediation  
PO Box 16690  
Salt Lake City, Ut 84116-0690

Ref: Tank Closure, ID#5000041, Diesel Tanks 3 & 2, Consolidation Coal Co.  
Emery Mine.

Upon removal of the 2 diesel tanks we discovered that they had been leaking.  
Most of the contamination was at a depth of 10 ft to 25 ft from the surface.

This is indicated by the following Soils Analysis:

| <u>Soil Sample</u> | <u>TPH Mg/Kg</u> | <u>Depth of Sample</u> |
|--------------------|------------------|------------------------|
| 4                  | 11,400           | 11 ft                  |
| 5                  | Less 1.0         | 11 ft                  |
| 6                  | 1.73             | 11 ft                  |
| 7-B                | 62300            | 18 ft                  |
| 32                 | Less 1.0         | 27 ft                  |
| 33                 | 6.14             | 27 ft                  |
| 34                 | 5,200            | 25 ft                  |
| 35                 | Less 1.0         | 27 ft                  |
| 36                 | Less 1.0         | 27 ft                  |
| 37                 | Less 1.0         | 27 ft                  |
| 38                 | Less 1.0         | 27 ft                  |
| B USC              |                  | 11 ft                  |
| 2-B USC            |                  | 20 ft                  |

Coal seam was encountered at a depth of 21+- ft. depth.

1,166.91 tons of contaminated soils were removed and disposed of at Castle Dale Landfill.

Thank You

NEIL FRANDSEN