11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report
30-Jul-12 Final Report

| Coal Valley Resources Inc. |  |
| :--- | :--- |
| 1600 Oxford Tower |  |
| 10235-101 Street |  |
| Edmonton,AB |  |
| T5J 3G1,Canada |  |
|  |  |
| WORKORDER: | RC12020427 |
|  |  |
| Hole: | RT-11-672C |
| Seam: | Arbour |
| Diameter: | 63.5 mm |
| Depth: | 32.5 m TO 42.0m |
| Plies: | A,B,C,D1,D2 |

## WET SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 2198 | 9.9 | 9.9 |
| +25 | 1295 | 5.8 | 15.7 |
| +16 | 2076 | 9.3 | 25.0 |
| +12.5 | 1104 | 5.0 | 30.0 |
| +8 | 2146 | 9.6 | 39.6 |
| +4 | 2779 | 12.5 | 52.1 |
| +2 | 2822 | 12.7 | 64.8 |
| +1 | 2380 | 10.7 | 75.5 |
| +0.5 | 1440 | 6.5 | 82.0 |
| +0.25 | 704 | 3.2 | 85.1 |
| +0.15 | 314 | 1.4 | 86.5 |
| +0.063 | 765 | 3.4 | 90.0 |
| +0.038 | 702 | 3.2 | 93.1 |
| -0.038 | 1531 | 6.9 | 100.0 |

## ASTM Standard of Analysis

D4749 (split with RSD)

## *All losses allocated to -0.038 mm fraction

Sample was attrited in maximum 50 kg lots with 18 cubes and 150 L of water or equivalent mass for $5 \mathrm{~min} @ 20 \mathrm{rpm}$

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    Laboratory Manager
```

| CERTIFICATE OF ANAL | YSIS |  |  | Preliminary Report Final Report |  |  | 30-Jul-12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal Valley Resources Inc. 1600 Oxford Tower <br> 10235-101 Street <br> Edmonton, AB <br> T5J 3G1,Canada |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| WORKORDER: | RC12020427 |  |  |  |  |  |  |
| Hole: | RT-11-672C |  |  |  |  |  |  |
| Seam: | Arbour |  |  |  |  |  |  |
| Diameter | 63.5 mm |  |  |  |  |  |  |
| Depth: | 32.5 m TO 42.0 m |  |  |  |  |  |  |
| Plies: | A.B.C,D1.02 |  |  |  |  |  |  |
| ANALYSIS |  |  |  |  |  |  | ASTM Standard of Analysis |
| FLOAT SINK ANALYSIS | AIR-DRIED BASIS |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| SIZE: +12.5mm |  |  |  |  |  |  |  |
| S.G. | WT (9) | WT\% | Mois \% | Ash\% | GCV (kcal/kg) | FSI |  |
| F1.35 | 568 | 8.6 | 7.14 | 4.84 | 6624 | 0.0 | D4371 |
| S1.35-F1.40 | 754 | 11.3 | 6.93 | 8.48 | 6297 | 0.0 | D3172 |
| S1.40-F1.45 | 789 | 11.9 | 6.42 | 14.07 | 5913 | 0.0 | D4239 |
| S1.45-F1.50 | 478 | 7.2 | 6.20 | 18.54 | 5507 | 0.0 | D720 |
| S1.50-F1.55 | 351 | 5.3 | 5.76 | 25.26 | 5043 | 0.0 |  |
| S1.55-F1.60 | 349 | 5.2 | 5.25 | 30.87 | 4597 | 0.0 |  |
| S1.60-F1.70 | 1034 | 15.6 | 4.72 | 38.11 | 3945 | . |  |
| S1.70-F1.80 | 910 | 13.7 | 4.11 | 4744 | 3384 | * |  |
| S1.80-F1.90 | 599 | 9.0 | 3.78 | 54.62 | 2617 | - |  |
| S1.90-F2.00 | 384 | 5.8 | 3.39 | 64.65 | 1970 | - |  |
| S2.00 | 431 | 6.5 | 3.17 | 74.24 | 1091 | - |  |


| SIZE: $-12.5 \mathrm{~mm} \times+1.0 \mathrm{~mm}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S. . | WT $(\mathrm{g})$ | WT\% | Mois $\%$ | Ash $\%$ | GCV $(\mathrm{kcal/kg})$ | FSI |  |
| F1.30 | 33 | 0.6 | 8.01 | 2.62 | 6708 | 0.0 |  |
| S1.30-F1.35 | 1525 | 29.9 | 8.17 | 3.73 | 6548 | 0.0 |  |
| S1.35-F1.40 | 1051 | 20.6 | 7.41 | 8.43 | 6240 | 0.0 |  |
| S1.40-F1.45 | 601 | 11.8 | 6.45 | 13.78 | 5848 | 0.0 |  |
| S1.45-F1.50 | 337 | 6.6 | 5.90 | 18.57 | 5531 | 0.0 |  |
| S1.50-F1.55 | 291 | 5.7 | 6.23 | 22.73 | 5184 | 0.0 |  |
| S1.55-F1.60 | 182 | 3.6 | 5.34 | 28.67 | 4755 | 0.0 |  |
| S1.60-F1.70 | 263 | 5.2 | 5.19 | 36.04 | 4193 | $*$ |  |
| S1.70-F1.80 | 204 | 4.0 | 4.49 | 44.68 | 3508 | $*$ |  |
| S1.80-F1.90 | 184 | 3.6 | 3.83 | 53.63 | 2775 | $*$ |  |
| S1.90-F2.00 | 160 | 3.1 | 3.94 | 61.01 | 1961 | $*$ |  |
| S2.00 | 262 | 5.2 | 2.78 | 72.03 | 1180 | $*$ |  |


| SIZE: $1 \mathrm{~mm} \times \mathbf{0 . 1 5 m m}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT $(\mathrm{g})$ | WT\% | Mois $\%$ | Ash $\%$ | GCV (kcal/kg) | FSI |  |
| F1.35 | 315 | 29.5 | 7.33 | 2.73 | 6639 | 0.0 |  |
| S1.35-F1.40 | 240 | 22.5 | 7.21 | 6.09 | 6314 | 0.0 |  |
| S1.40-F1.45 | 97 | 9.0 | 6.44 | 11.61 | 5953 | 0.0 |  |
| S1.45-F1.50 | 65 | 6.1 | 6.43 | 15.16 | 5688 | 0.0 |  |
| S1.50-F1.55 | 55 | 5.1 | 6.15 | 17.47 | 5478 | 0.0 |  |
| S1.55-F1.60 | 38 | 3.6 | 5.99 | 22.42 | 5089 | 0.0 |  |
| S1.60-F1.70 | 50 | 4.6 | 5.25 | 32.08 | 4380 | . |  |
| S1.70-F1.80 | 39 | 3.7 | 4.56 | 43.32 | 3592 | $*$ |  |
| S1.80-F1.90 | 34 | 3.2 | 4.36 | 51.91 | 2916 | . |  |
| S1.90-F2.00 | 27 | 2.5 | 3.95 | 59.43 | 2347 | . |  |
| S2.00 | 107 | 10.1 | 2.40 | 72.32 | 795 | . |  |

FROTH FLOTATION

| SIZE: $0.15 \mathrm{~mm} \times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT(g) | WT\% | Mois \% | Ash \% | GCV (kcal/kg) | FSI |
| 15 SEC | 3 | 0.8 | NSS | 12.08 | 6278 | 0.0 |
| 30 SEC | 1 | 0.2 | NSS | NSS | NSS | 0.0 |
| 60 SEC | 1 | 0.2 | NSS | NSS | NSS | 0.0 |
| 90 SEC | 0 | 0.1 | NSS | NSS | NSS | 0.0 |
| Tails (T2) | 6 | 1.6 | 5.74 | 56.11 | 2335 | 0.0 |
| Tails (T1) | 354 | 97.1 | 6.41 | 65.24 | 1567 | 0.0 |
| $\begin{array}{ll}\text { RAMETERS: } & 10 \% \text { PULP DENSITY, COND. TIME } 90 \text { SECOND } \\ & 0.667 \mathrm{KG} / \mathrm{T} \text { 10:1 KERO:MIBC, DENVER CELL, } 1200 \text { RPM }\end{array}$ |  |  |  |  |  |  |

FINES

| SIZE: $-0.038 \mathrm{~mm}$ |  |  |
| :---: | :---: | :---: |
| Mois \% | Ash $\%$ | GCV $(\mathrm{kcal} / \mathrm{kg})$ |
| 6.46 | 78.32 | 702 |

NSS $=$ Not sufficient Sample
We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard
Methods of analysis of Coal.


| CUMULATIVE WEIGHT \% SIZE: $1 \mathrm{~mm} \times 0.15 \mathrm{~mm}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT $\%$ | CUM WT $\%$ | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |  |
| F1.35 | 29.5 | 29.5 | 7.33 | 2.73 | 6639 | 0.0 |  |
| S1.35-F1.40 | 22.5 | 52.0 | 7.28 | 4.18 | 6498 | 0.0 |  |
| S1.40-F1.45 | 9.0 | 61.0 | 7.15 | 5.28 | 6417 | 0.0 |  |
| S1.45-F1.50 | 6.1 | 67.1 | 7.09 | 6.18 | 6351 | 0.0 |  |
| S1.50-F1.55 | 5.1 | 72.3 | 7.02 | 6.99 | 6289 | 0.0 |  |
| S1.55-F1.60 | 3.6 | 75.9 | 6.97 | 7.72 | 6232 | 0.0 |  |
| S1.60-F1.70 | 4.6 | 80.5 | 6.87 | 9.12 | 6125 | - |  |
| S1.70-F1.80 | 3.7 | 84.2 | 6.77 | 10.62 | 6015 | - |  |
| S1.80-F1.90 | 3.2 | 87.4 | 6.68 | 12.13 | 5901 | - |  |
| S1.90-F2.00 | 2.5 | 89.9 | 6.61 | 13.47 | 5800 | - |  |
| S2.00 | 10.1 | 100.0 | 6.18 | 19.39 | 5297 | - |  |

FROTH FLOTATION

| CUMULATIVE WEIGHT \% SIZE 0.15mm $\times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |  |  |
| 15 SEC (P2) | 0.8 | 0.8 | - | 12.08 | 6278 | 0.0 |  |  |
| 30 SEC (P3) | 0.2 | 1.0 | - | - | - | 0.0 |  |  |
| 60 SEC (P4) | 0.2 | 1.2 | - | - | - | 0.0 |  |  |
| 90 SEC (P5) | 0.1 | 1.2 | - | - | - | 0.0 |  |  |
| Tails (T2) | 1.6 | 2.9 | - | - | - | 0.0 |  |  |
| Tails (T1) | 97.1 | 100.0 | - | - | - | 0.0 |  |  |

FINES

| CUMULATIVE WEIGHT \% SIZE: |  |  |
| :---: | :---: | :---: |
| Mois $\%$ | Ash $\%$ | $\mathrm{CV}(\mathrm{kcal} / \mathrm{kg})$ |
| 6.46 | 78.32 | 702 |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal

## Robb Trend Project

Coal Sample Results - 2012 Core Program

RT-11-719C

## Arbour Seam

## Sample Horizon: 47.1 to 57.56

## ALS LABORATORY GROUP - COAL DIVISION

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5HI Canada

| CERTIFICATE OF ANALYSIS |  | Preliminary Report Final Report | 31-Jul-12 |
| :---: | :---: | :---: | :---: |
| Coal Valley Resources Inc. |  |  |  |
| 1600 Oxford Tower |  |  |  |
| 10235-101 Street |  |  |  |
| Edmonton, AB |  |  |  |
| T5J 3G1, Canada |  |  |  |
| WORKORDER: | RC12020421 |  |  |
| Hole: | RT-11-719C |  |  |
| Seam: | Arbour |  |  |
| Diameter: | 63.5 mm |  |  |
| Depth: | 47.1 m to 57.56 m |  |  |
| Plies: | A,B,D1,D2 |  |  |

Raw Analysis

|  | WUt (g) | Mois $\%$ | Ash\% | VM\% | F.C. $\%$ | S $\%$ | CV (kcal/kg) | Cl $\%$ | RD | ARD |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Raw Coal | 32950 | 6.59 | 28.60 | 28.18 | 36.63 | 0.25 | 4707 | 0.01 | 1.58 | 1.53 |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada

| WORKORDER: | RC12020421 |
| :--- | :--- |
|  |  |
| Hole: | RT-11-719C |
| Seam: | Arbour |
| Diameter: | 63.5 mm |
| Depth: | 47.1 m to 57.56 m |
| Plies: | A,B,D1,D2 |

# ALS LABORATORY GROUP - COAL DIVISION 

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report
Coal Valley Resources Inc
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1, Canada

WORKORDER: RC12020421

| Hole: | RT-11-719C |
| :--- | :--- |
| Seam: | Arbour |
| Diameter: | 63.5 mm |
| Depth: | 47.1 m to 57.56 m |
| Plies: | A, B,D1,D2 |

DRY SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 4920 | 14.9 | 14.9 |
| $-31.5+25$ | 1384 | 4.2 | 19.1 |
| $-25+16$ | 2908 | 8.8 | 28.0 |
| $-16+8$ | 3508 | 10.6 | 38.6 |
| $-8+4$ | 3432 | 10.4 | 49.0 |
| $-4+2$ | 7487 | 22.7 | 71.7 |
| -2 | 9311 | 28.3 | 100.0 |

ASTM Standard of Analysis

D4749
(split with RSD)
*All losses allocated to -2 mm fraction
We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.
<original signed by>

Brett Warden
Laboratory Manager

11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: + 16042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report
31-Jul-12

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada
WORKORDER: RC12020421

| Hole: | RT-11-719C |
| :--- | :--- |
| Seam: | Arbour |
| Diameter: | 63.5 mm |
| Depth: | 47.1 m to 57.56 m |
| Plies: | A,B,D1,D2 |

## WET SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 2031 | 8.2 | 8.2 |
| +25 | 1185 | 4.8 | 13.1 |
| +16 | 1840 | 7.5 | 20.5 |
| +12.5 | 976 | 4.0 | 24.5 |
| +8 | 1671 | 6.8 | 31.3 |
| +4 | 2490 | 10.1 | 41.4 |
| +2 | 4808 | 19.5 | 60.9 |
| +1 | 3534 | 14.3 | 75.2 |
| +0.5 | 1830 | 7.4 | 82.7 |
| +0.25 | 777 | 3.2 | 85.8 |
| +0.15 | 326 | 1.3 | 87.2 |
| +0.063 | 865 | 3.5 | 90.7 |
| +0.038 | 605 | 2.5 | 93.1 |
| -0.038 | 1696 | 6.9 | 100.0 |

ASTM Standard of Analysis

D4749 (split with RSD)

## *All losses allocated to $\mathbf{- 0 . 0 3 8 \mathrm { mm }}$ fraction

Sample was attrited in maximum 50kg lots with 18 cubes and 150 L of water or equivalent mass for 5 min @ 20 rpm

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    LaboratoryManager
```

CERTIFICATE OF ANALYSIS | Preliminary Report |
| :--- |
| Final Report |$\quad 31$-Jul-12

ANALYSIS
ASTM Standard of Analysis
FLOAT SINK ANALYSIS AIR-DRIED BASIS

| SIZE: +12.5mm |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT(g) | WT\% | Mois $\%$ | Ash $\%$ | GCV $(\mathrm{kcal} / \mathrm{kg})$ | FSI |  |
| F1.30 | 13 | 0.2 | 7.48 | 3.45 | 6765 | 0.0 |  |
| S1.30-F1.35 | 599 | 9.9 | 7.39 | 4.75 | 6569 | 0.0 |  |
| S1.35-F1.40 | 1143 | 19.0 | 6.65 | 10.42 | 6223 | 0.0 |  |
| S1.40-F1.45 | 741 | 12.3 | 6.24 | 15.60 | 5803 | 0.0 |  |
| S1.45-F1.50 | 425 | 7.1 | 5.90 | 21.39 | 5349 | 0.0 |  |
| S1.50-F1.55 | 390 | 6.5 | 5.63 | 26.53 | 4953 | 0.0 |  |
| S1.55-F1.60 | 381 | 6.3 | 5.35 | 32.12 | 4597 | 0.0 |  |
| S1.60-F1.70 | 1118 | 18.6 | 4.37 | 35.55 | 4083 | . |  |
| S1.70-F1.80 | 244 | 4.1 | 3.89 | 47.24 | 3300 | . |  |
| S1.80-F1.90 | 219 | 3.6 | 3.30 | 52.33 | 2815 | . |  |
| S1.90-F2.00 | 261 | 4.3 | 3.04 | 62.13 | 2018 | . |  |
| S2.00 | 492 | 8.2 | 1.55 | 71.78 | 843 | . |  |


| SIZE: $-12.5 \mathrm{~mm} x+1.0 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT(g) | WT\% | Mois $\%$ | Ash \% | GCV (kcal/kg) | FSI |
| F1.30 | 63 | 1.3 | 7.79 | 2.94 | 6777 | 0.5 |
| S1.30-F1.35 | 1431 | 30.5 | 7.15 | 4.07 | 6560 | 0.0 |
| S1.35-F1.40 | 921 | 19.7 | 6.57 | 8.87 | 6242 | 0.0 |
| S1.40-F1.45 | 527 | 11.3 | 6.04 | 13.73 | 5896 | 0.0 |
| S1.45-F1.50 | 347 | 7.4 | 5.42 | 19.05 | 5531 | 0.0 |
| S1.50-F1.55 | 232 | 5.0 | 5.30 | 23.89 | 5141 | 0.0 |
| S1.55-F1.60 | 184 | 3.9 | 5.74 | 29.09 | 4738 | 0.0 |
| S1.60-F1.70 | 280 | 6.0 | 5.30 | 36.25 | 4196 | . |
| S1.70-F1.80 | 168 | 3.6 | 4.62 | 45.32 | 3441 | . |
| S1.80-F1.90 | 122 | 2.6 | 3.96 | 54.01 | 2787 | . |
| S1.90-F2.00 | 90 | 1.9 | 3.82 | 61.27 | 2104 | . |
| S2.00 | 319 | 6.8 | 2.65 | 74.61 | 1046 | . |


| SIZE: $1 \mathrm{~mm} \times 0.15 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT (g) | WT\% | Mois \% | Ash \% | GCV (kcal/kg) | FSI |
| F1.30 | 12 | 1.1 | 6.74 | 3.42 | 6811 | 0.0 |
| S1.30-F1.35 | 318 | 29.0 | 7.97 | 2.91 | 6622 | 0.0 |
| S1.35-F1.40 | 250 | 22.8 | 7.69 | 6.27 | 6350 | 0.0 |
| S1.40-F1.45 | 106 | 9.6 | 7.09 | 11.89 | 5980 | 0.0 |
| S1.45-F1.50 | 66 | 6.0 | 6.82 | 15.91 | 5688 | 0.0 |
| S1.50-F1.55 | 48 | 4.4 | 6.44 | 19.14 | 5397 | 0.0 |
| S1.55-F1.60 | 38 | 3.4 | 5.98 | 24.91 | 4974 | 0.0 |
| S1.60-F1.70 | 47 | 4.2 | 5.50 | 33.35 | 4308 | - |
| S1.70-F1.80 | 36 | 3.3 | 5.23 | 43.26 | 3565 | * |
| S1.80-F1.90 | 26 | 2.4 | 4.98 | 51.58 | 2921 | * |
| S1.90-F2.00 | 23 | 2.1 | 4.73 | 59.59 | 2261 | * |
| S2.00 | 128 | 11.6 | 2.71 | 74.72 | 900 | * |

FROTH FLOTATION

| SIZE: $0.15 \mathrm{~mm} \times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT(g) | WT\% | Mois \% | Ash \% | GCV (kcal/kg) | FSI |
| 15 SEC | 5 | 1.3 | NSS | 9.21 | 6691 | 0.0 |
| 30 SEC | 3 | 0.7 | NSS | 10.06 | 6359 | 0.0 |
| 60 SEC | 1 | 0.2 | NSS | NSS | NSS | 0.0 |
| 90 SEC | 0 | 0.1 | NSS | NSS | NSS | 0.0 |
| Tails (T1) | 339 | 93.5 | 5.20 | 66.75 | 1705 | 0.0 |
| Tails (T2) | 15 | 4.2 | 5.33 | 75.60 | 1027 | 0.0 |
| PARAMETERS: | $10 \%$ PULP DENSITY, COND. TIME 90 SECOND $0.667 \mathrm{KG} / \mathrm{T} 10: 1 \mathrm{KERO}: \mathrm{MIBC}$, DENVER CELL, 1200 RPM |  |  |  |  |  |

FINES

| SIZE: $-0.038 \mathrm{~mm}$ |  |  |
| :---: | :---: | :---: |
| Mois \% | Ash $\%$ | GCV $(\mathrm{kcal} / \mathrm{kg})$ |
| 4.38 | 83.98 | 509 |

## NSS $=$ Not Sufficient Sample

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal


| CUMULATIVE WEIGHT \% SIZE: $12.5 \mathrm{~mm} \times 1.0 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV $(\mathrm{kcal} / \mathrm{kg})$ | FSI |
| F1.30 | 1.3 | 1.3 | 7.79 | 2.94 | 6777 | 0.5 |
| S1.30-F1.35 | 30.5 | 31.9 | 7.18 | 4.02 | 6569 | 0.0 |
| S1.35-F1.40 | 19.7 | 51.5 | 6.95 | 5.87 | 6444 | 0.0 |
| S1.40-F1.45 | 11.3 | 62.8 | 6.78 | 7.28 | 6346 | 0.0 |
| S1.45-F1.50 | 7.4 | 70.2 | 6.64 | 8.52 | 6260 | 0.0 |
| S1.50-F1.55 | 5.0 | 75.2 | 6.55 | 9.54 | 6186 | 0.0 |
| S1.55-F1.60 | 3.9 | 79.1 | 6.51 | 10.51 | 6114 | 0.0 |
| S1.60-F1.70 | 6.0 | 85.1 | 6.43 | 12.32 | 5979 | - |
| S1.70-F1.80 | 3.6 | 88.7 | 6.35 | 13.65 | 5877 | - |
| S1.80-F1.90 | 2.6 | 91.3 | 6.28 | 14.81 | 5788 | - |
| S1.90-F2.00 | 1.9 | 93.2 | 6.23 | 15.77 | 5712 | - |
| S2.00 | 6.8 | 100.0 | 5.99 | 19.77 | 5395 | - |


| CUMULATIVE WEIGHT \% SIZE: $1 \mathrm{~mm} \times 0.15 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |
| F1.30 | 1.1 | 1.1 | 6.74 | 3.42 | 6811 | 0.0 |
| S1.30-F1.35 | 29.0 | 30.0 | 7.93 | 2.93 | 6629 | 0.0 |
| S1.35-F1.40 | 22.8 | 52.8 | 7.82 | 4.37 | 6508 | 0.0 |
| S1.40-F1.45 | 9.6 | 62.5 | 7.71 | 5.53 | 6427 | 0.0 |
| S1.45-F1.50 | 6.0 | 68.5 | 7.63 | 6.45 | 6362 | 0.0 |
| S1.50-F1.55 | 4.4 | 72.9 | 7.56 | 7.21 | 6303 | 0.0 |
| S1.55-F1.60 | 3.4 | 76.3 | 7.49 | 8.01 | 6244 | 0.0 |
| S1.60-F1.70 | 4.2 | 80.6 | 7.38 | 9.34 | 6142 | - |
| S1.70-F1.80 | 3.3 | 83.9 | 7.30 | 10.66 | 6041 | - |
| S1.80-F1.90 | 2.4 | 86.2 | 7.24 | 11.79 | 5956 | - |
| S1.90-F2.00 | 2.1 | 88.4 | 7.18 | 12.94 | 5886 | - |
| S2.00 | 11.6 | 100.0 | 6.66 | 20.13 | 5288 | - |

FROTH FLOTATION

|  |  |  |  |  |  |  |  | CUMULATIVE WEIGHT $\%$ SIZE 0.15mm $\times 0.038 \mathrm{~mm}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT\% | CUM WT $\%$ | Mois $\%$ | Ash $\%$ | CV $(\mathrm{kcal} / \mathrm{kg})$ | FSI |  |  |
| 15 SEC (P2) | 1.3 | 1.3 | - | 9.21 | 6691 | 0.0 |  |  |
| 30 SEC (P3) | 0.7 | 2.0 | - | 9.51 | 6575 | 0.0 |  |  |
| 60 SEC (P4) | 0.2 | 2.2 | - | - | - | 0.0 |  |  |
| 90 SEC (P5) | 0.1 | 2.3 | - | - | - | 0.0 |  |  |
| Tails (T1) | 93.5 | 95.8 | - | - | - | 0.0 |  |  |
| Tails (T2) | 4.2 | 100.0 | - | - | - | 0.0 |  |  |

FINES

| CUMULATIVE WEIGHT \% SIZE: -0.038 mm |  |  |
| :---: | :---: | :---: |
| Mois \% | Ash \% | $\mathrm{CV}(\mathrm{kcal} / \mathrm{kg})$ |
| 4.38 | 83.98 | 509 |

NSS $=$ Not Sufficient Sample
We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

Robb Trend Project

Coal Sample Results - 2012 Core Program

## McPherson Seam

## RT-11-424C

## McPherson Seam

## Sample Horizon: 43.2 to 51.2

## ALS LABORATORY GROUP - COAL DIVISION

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +16042413166 Fax: + 16042413126 Email: adrian.reifenstein@alsglobal.com

Preliminary Report Final Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton,AB
T5J 3G1,Canada
WORKORDER:

RC12020624
Hole:
Ream:

| Siameter: | McPherson |
| :--- | :--- |
| Depth: | 63.5 mm |
| Plies: | 43.2 m to 51.2 m |
|  | 1,2 |

Raw Analysis

|  | Wt (g) | Mois\% | Ash\% | VM\% | F.C.\% | S\% | CV (kcal/kg) | CI \% | RD | ARD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Raw Coal | 11200 | 7.74 | 26.53 | 28.00 | 37.73 | 0.24 | 4821 | 0.01 | 1.56 | 1.50 |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

> <original signed by>

ALS LABORATORY GROUP - COAL DIVISION RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +16042413166 Fax: +16042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada

| WORKORDER: | RC12020624 |
| :--- | :--- |
|  |  |
| Hole: | RT-11-424C |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 43.2 m to 51.2 m |
| Plies: | 1,2 |

## SIZING AFTER 20 DROPS

| Size $(\mathrm{mm})$ | Weight $(\mathrm{g})$ | Weight $\%$ |
| :---: | :---: | :---: |
| +50 | 109 | 1.0 |
| -50 | 11091 | 99.0 |

We certify the analysis reported hereon was determined in accordance with the modified procedure for Drop Shatter Testing

```
<original signed by>
    Brett Warden
    Laboratory Manager
```

11191 Coppersmith Place, Richmond BC V7A 5H1 Canada

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton,AB
T5J 3G1,Canada

| WORKORDER: | RC12020624 |
| :--- | :--- |
|  |  |
| Hole: | RT-11-424C |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 43.2 m to 51.2 m |
| Plies: | 1,2 |

ASTM Standard of Analysis

D4749
(split with RSD)

## *All losses allocated to -2mm fraction

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    brett warden
    Laboratory Manager
```


# ALS LABORATORY GROUP - COAL DIVISION <br> RICHMOND BC CANADA 

11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada
WORKORDER: RC12020624

| Hole: | RT-11-424C |
| :--- | :--- |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 43.2 m to 51.2 m |
| Plies: | 1,2 |

## ASTM Standard <br> of Analysis

D4749 (split with RSD)

## WET SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 122 | 1.4 | 1.4 |
| +25 | 203 | 2.4 | 3.8 |
| +16 | 564 | 6.7 | 10.5 |
| +12.5 | 322 | 3.8 | 14.3 |
| +8 | 644 | 7.6 | 21.9 |
| +4 | 1154 | 13.6 | 35.5 |
| +2 | 1290 | 15.2 | 50.8 |
| +1 | 1237 | 14.6 | 65.4 |
| +0.5 | 954 | 11.3 | 76.6 |
| +0.25 | 493 | 5.8 | 82.5 |
| +0.15 | 205 | 2.4 | 84.9 |
| +0.063 | 359 | 4.2 | 89.1 |
| +0.038 | 159 | 1.9 | 91.0 |
| -0.038 | 763 | 9.0 | 100.0 |

*All losses allocated to -0.038 mm fraction
Sample was attrited in maximum 50 kg lots with 18 cubes and 150 L of water or equivalent mass for $5 \mathrm{~min} @ 20 \mathrm{rpm}$

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.


FROTH FLOTATION

| SIZE: $0.15 \mathrm{~mm} \times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT(g) | WT\% | Mois \% | Ash \% | GCV (kcal/kg) | FSI |
| 15 SEC | 7 | 3.7 | 7.02 | 13.20 | 5889 | 0.0 |
| 30 SEC | 2 | 1.0 | NSS | 29.97 | 4432 | 0.0 |
| 60 SEC | 1 | 0.5 | NSS | 34.81 | NSS | 0.0 |
| 90 SEC | 1 | 0.4 | NSS | 52.18 | NSS | 0.0 |
| Tails (T1) | 164 | 89.8 | 9.12 | 62.55 | 1442 | 0.0 |
| Tails (T2) | 8 | 4.5 | 8.99 | 64.12 | 1337 | 0.0 |
| PARAMETERS | $10 \%$ PULP DENSITY, COND. TIME 90 SECOND <br> 0.667 KG/T $10: 1$ KERO:MIBC, DENVER CELL, 1200 RPM |  |  |  |  |  |

FINES

| SIZE: $-0.038 \mathrm{~mm}$ |  |  |
| :---: | :---: | :---: |
| Mois \% | Ash \% | GCV (kcal/kg) |
| 9.57 | 70.99 | 1053 |

NSS $=$ Not Sufficient Sample
We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

| CERTIFICATE OF ANALYSIS | Preliminary Report <br> Final Report |
| :--- | :--- |
| Coal Valley Resources Inc. |  |
| 1600 Oxford Tower |  |
| 10235-101 Street |  |
| Edmonton,AB |  |
| T5J 3G1,Canada |  |
| WORKORDER: | RC12020624 |
| Wole: | RT-11-424C |
| McPherson |  |
| Seam: | 63.5 mm |
| Diameter: | 43.2 m to 51.2 m |
| Depth: | 1.2 |

FLOAT SINK ANALYSIS AIR-DRIED BASIS of Analysis

| CUMULATVE WEIGHT \% SIZE: $+\mathbf{1 2 . 5 m m}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |  |
| F1.30 | 0.0 | 0.0 | - | - | - | - |  |
| S1.30-F1.35 | 4.8 | 4.8 | 7.70 | 5.91 | 6517 | 0.0 |  |
| S1.35-F1.40 | 22.6 | 27.4 | 7.57 | 8.72 | 6243 | 0.0 |  |
| S1.40-F1.45 | 22.2 | 49.6 | 7.60 | 11.33 | 6039 | 0.0 |  |
| S1.45-F1.50 | 21.0 | 70.6 | 7.56 | 13.00 | 5897 | 0.0 |  |
| S1.50-F1.55 | 12.6 | 83.2 | 7.49 | 15.00 | 5748 | 0.0 |  |
| S1.55-F1.60 | 5.5 | 88.7 | 7.38 | 15.97 | 5675 | 0.0 |  |
| S1.60-F1.70 | 4.2 | 92.9 | 7.31 | 16.92 | 5601 | - |  |
| S1.70-F1.80 | - | - | - | - | - | - |  |
| S1.80-F1.90 | - | - | - | - | - | - |  |
| S1.90-F2.00 | 6.8 | 99.7 | 7.01 | 18.55 | 5480 | - |  |
| S2.00 | 0.3 | 100.0 | 6.99 | 18.66 | 5468 | - |  |

D4371
D3172
D3172
D4239
D720

| CUMULATIVE WEIGHT \% SIZE: $12.5 \mathrm{~mm} \times 1.0 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV $\langle\mathrm{kcal} / \mathrm{kg})$ | FSI |
| F1.30 | 0.9 | 0.9 | 6.28 | 3.04 | 7011 | 0.5 |
| S1.30-F1.35 | 31.1 | 32.0 | 7.96 | 3.92 | 6572 | 0.0 |
| S1.35-F1.40 | 18.8 | 50.8 | 7.78 | 5.75 | 6441 | 0.0 |
| S1.40-F1.45 | 11.4 | 62.2 | 7.73 | 7.23 | 6328 | 0.0 |
| S1.45-F1.50 | 10.1 | 72.3 | 7.67 | 8.69 | 6212 | 0.0 |
| S1.50-F1.55 | 9.0 | 81.3 | 7.59 | 10.19 | 6096 | 0.0 |
| S1.55-F1.60 | 4.6 | 85.8 | 7.56 | 11.17 | 6021 | 0.0 |
| S1.60-F1.70 | 4.2 | 90.0 | 7.52 | 12.31 | 5931 | - |
| S1.70-F1.80 | 2.8 | 92.8 | 7.49 | 13.32 | 5852 | - |
| S1.80-F1.90 | 2.1 | 94.9 | 7.46 | 14.21 | 5781 | - |
| S1.90-F2.00 | 2.2 | 97.1 | 7.43 | 15.31 | 5691 | - |
| S2.00 | 2.9 | 100.0 | 7.34 | 16.92 | 5553 | - |


| CUMULATIVE WEIGHT \% SIZE: $1 \mathrm{~mm} \times 0.15 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |
| F1.30 | 0.8 | 0.8 | 6.17 | 3.53 | 6863 | 0.5 |
| S1.30-F1.35 | 20.5 | 21.3 | 8.28 | 3.04 | 6542 | 0.0 |
| S1.35-F1.40 | 10.9 | 32.2 | 8.19 | 4.28 | 6447 | 0.0 |
| S1.40-F1.45 | 6.2 | 38.3 | 8.12 | 5.52 | 6354 | 0.0 |
| S1.45-F1.50 | 6.0 | 44.4 | 8.04 | 6.92 | 6250 | 0.0 |
| S1.50-F1.55 | 6.2 | 50.5 | 7.98 | 8.43 | 6132 | 0.0 |
| S1.55-F1.60 | 5.2 | 55.8 | 7.95 | 9.86 | 6019 | 0.0 |
| S1.60-F1.70 | 5.5 | 61.2 | 7.91 | 11.90 | 5859 | - |
| S1.70-F1.80 | 4.8 | 66.0 | 7.88 | 14.18 | 5680 | - |
| S1.80-F1.90 | 4.8 | 70.8 | 7.85 | 16.68 | 5485 | - |
| S1.90-F2.00 | 6.1 | 76.9 | 7.80 | 20.02 | 5217 | - |
| S2.00 | 23.1 | 100.0 | 7.28 | 32.22 | 4194 | - |

FROTH FLOTATION

| CUMULATIVE WEIGHT \% SIZE 0.15mm $\times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT \% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |  |
| 15 SEC (P2) | 3.7 | 3.7 | 7.02 | 13.20 | 5889 | 0.0 |  |
| 30 SEC (P3) | 1.0 | 4.7 | - | 16.71 | 5584 | 0.0 |  |
| 60 SEC (P4) | 0.5 | 5.3 | - | 18.60 | - | 0.0 |  |
| 90 SEC (P5) | 0.4 | 5.7 | - | 21.18 | - | 0.0 |  |
| Tails (T1) | 89.8 | 95.5 | - | 60.08 | - | 0.0 |  |
| Tails (T2) | 4.5 | 100.0 | - | 60.26 | - | 0.0 |  |

FINES

| CUMULATIVE WEIGHT $\%$ SIZE: |  |  |  | -0.038 mm |
| :---: | :---: | :---: | :---: | :---: |
| Mois $\%$ | Ash $\%$ | CV $(\mathrm{kca} / \mathrm{kg})$ |  |  |
| 9.57 | 70.99 | 1053 |  |  |

## RT-11-523C

## McPherson Seam

## Sample Horizon: 25.1 to 33.7

## ALS LABORATORY GROUP - COAL DIVISION

11191 Coppersmith Place, Richmond BC V7A 5HI Canada
Tel: +1 6042413166 Fax: + 16042413126 Email: adrian.reifenstein@alsglobal.com

| CERTIFICATE OF ANALYSIS |  | Preliminary Report Final Report | 9-Aug-12 |
| :---: | :---: | :---: | :---: |
| Coal Valley Resources Inc. |  |  |  |
| 1600 Oxford Tower |  |  |  |
| 10235-101 Street |  |  |  |
| Edmonton, AB |  |  |  |
| T5J 3G1,Canada |  |  |  |
| WORKORDER: | RC12020621 |  |  |
| Hole: | RT-11-523C |  |  |
| Seam: | McPherson |  |  |
| Diameter: | 63.5 mm |  |  |
| Depth: | 25.1 m to 33.7 m |  |  |
| Plies: | 1,2 |  |  |

Raw Analysis

|  | Wht (g) | Mois\% | Ash\% | VM\% | F.C.\% | S\% | CV (kcal/kg) | CI \% | RD | ARD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Raw Coal | 17700 | 7.09 | 21.94 | 29.66 | 41.31 | 0.21 | 5149 | 0.01 | 1.52 | 1.48 |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

11191 Coppersmith Place, Richmond BC V7A 5HI Canada

CERTIFICATE OF ANALYSIS
Preliminary Report
9-Aug-12
Final Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada
WORKOR
RC12020621

| Hole: | RT-11-523C |
| :--- | :--- |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 25.1 m to 33.7 m |
| Plies: | 1,2 |

## SIZING AFTER 20 DROPS

| Size (mm) | Weight (g) | Weight \% |
| :---: | :---: | :---: |
| +50 | 627 | 3.5 |
| -50 | 17073 | 96.5 |

We certify the analysis reported hereon was determined in accordance with the modified procedure for Drop Shatter Testing.

```
<original signed by>
Brett Warden
Laboratory Manager
```


## ALS LABORATORY GROUP - COAL DIVISION

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report
9-Aug-12
Final Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada

WORKORDER: RC12020621

| Hole: | RT-11-523C |
| :--- | :--- |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 25.1 m to 33.7 m |
| Plies: | 1,2 |

ASTM Standard
of Analysis

D4749
(split with RSD)

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 697 | 3.9 | 3.9 |
| $-31.5+25$ | 835 | 4.7 | 8.7 |
| $-25+16$ | 1728 | 9.8 | 18.4 |
| $-16+8$ | 2815 | 15.9 | 34.3 |
| $-8+4$ | 2695 | 15.2 | 49.6 |
| $-4+2$ | 2976 | 16.8 | 66.4 |
| -2 | 5953 | 33.6 | 100.0 |

## *All losses allocated to -2 mm fraction

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    Laboratory Manager
```

CERTIFICATE OF ANALYSIS
Preliminary Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton,AB
T5J 3G1,Canada

| WORKORDER: | RC12020621 |
| :--- | :--- |
|  |  |
| Hole: | RT-11-523C |
| Seam: | McPherson |
| Diameter: | 63.5 mm |
| Depth: | 25.1 m to 33.7 m |
| Plies: | 1,2 |

## WET SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 76 | 0.6 | 0.6 |
| +25 | 117 | 0.9 | 1.5 |
| +16 | 486 | 3.7 | 5.1 |
| +12.5 | 422 | 3.2 | 8.3 |
| +8 | 1019 | 7.7 | 16.0 |
| +4 | 2343 | 17.6 | 33.6 |
| +2 | 2807 | 21.1 | 54.7 |
| +1 | 2425 | 18.3 | 73.0 |
| +0.5 | 1298 | 9.8 | 82.8 |
| +0.25 | 697 | 5.2 | 88.0 |
| +0.15 | 320 | 2.4 | 90.4 |
| +0.063 | 609 | 4.6 | 95.0 |
| +0.038 | 226 | 1.7 | 96.7 |
| -0.038 | 437 | 3.3 | 100.0 |

## ASTM Standard

 of AnalysisD4749 (split with RSD)
*All losses allocated to -0.038 mm fraction
Sample was attrited in maximum 50kg lots with 18 cubes and 150 L of water or equivalent mass for $5 \mathrm{~min} @ 20 \mathrm{rpm}$

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    Laboratory Manager
```


CERTIFICATE OF ANALYSIS
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton,AB
T5J 3G1.Canada
WORKORDER:
Wreliminary Report
Final Report

| CUMULATIVE WEIGHT \% SIZE: $12.5 \mathrm{~mm} \times 1.0 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G. | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV $(\mathrm{kcal} / \mathrm{kg})$ | FSI |
| F1.30 | 0.6 | 0.6 | 7.69 | 2.31 | 6832 | 0.0 |
| S1.30-F1.35 | 31.7 | 32.4 | 8.45 | 3.33 | 6542 | 0.0 |
| S1.35-F1.40 | 20.2 | 52.6 | 8.07 | 5.18 | 6456 | 0.0 |
| S1.40-F1.45 | 15.6 | 68.2 | 7.87 | 6.97 | 6342 | 00 |
| S1.45-F1.50 | 9.7 | 77.9 | 7.83 | 8.23 | 6246 | 0.0 |
| S1.50-F1.55 | 5.5 | 83.3 | 7.77 | 9.15 | 6175 | 0.0 |
| S1.55-F1.60 | 2.9 | 86.3 | 7.73 | 9.81 | 6126 | 0.0 |
| S1.60-F1.70 | 3.3 | 89.6 | 7.66 | 10.78 | 6052 | - |
| S1.70-F1.80 | 2.5 | 92.1 | 7.60 | 11.72 | 5981 | - |
| S1.80-F1.90 | 1.7 | 93.8 | 7.55 | 12.50 | 5922 | - |
| S1.90-F2.00 | 1.3 | 95.1 | 7.50 | 13.18 | 5870 | - |
| S2.00 | 4.9 | 100.0 | 7.28 | 16.10 | 5632 | - |


| CUMULATIVE WEIGHT \% SIZE: $1 \mathrm{~mm} \times 0.15 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.G | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV $(\mathrm{kcal} / \mathrm{kg})$ | FSI |
| F1.30 | 0.5 | 0.5 | 6.12 | 5.87 | 6622 | 0.0 |
| S1.30-F1.35 | 25.0 | 25.5 | 7.33 | 2.67 | 6634 | 0.0 |
| S1.35-F1.40 | 16.3 | 41.8 | 7.20 | 3.99 | 6517 | 0.0 |
| S1.40-F1.45 | 9.2 | 51.0 | 7.11 | 5.20 | 6423 | 0.0 |
| S1.45-F1.50 | 7.0 | 58.0 | 7.09 | 6.30 | 6336 | 0.0 |
| S1.50-F1.55 | 6.3 | 64.4 | 7.11 | 7.38 | 6249 | 0.0 |
| S1.55-F1.60 | 3.9 | 68.3 | 7.09 | 8.27 | 6180 | 0.0 |
| S1.60-F1.70 | 3.9 | 72.2 | 7.05 | 9.56 | 6081 | - |
| S1.70-F1.80 | 2.8 | 75.0 | 7.01 | 10.82 | 5985 | - |
| S1.80-F1.90 | 2.4 | 77.4 | 6.97 | 12.09 | 5887 | - |
| S1.90-F2.00 | 2.4 | 79.9 | 6.92 | 13.52 | 5776 | - |
| S2.00 | 20.1 | 100.0 | 6.37 | 25.82 | 4758 | - |

FROTH FLOTATION

| CUMULATIVE WEIGHT \% SIZE 0.15mm $\times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT\% | CUM WT\% | Mois $\%$ | Ash $\%$ | CV (kcal/kg) | FSI |  |
| 15 SEC (P2) | 1.7 | 1.7 | 5.45 | 10.20 | 6405 | NSS |  |
| 30 SEC (P3) | 0.7 | 2.5 | 5.48 | 10.69 | 6320 | 0.0 |  |
| 60 SEC (P4) | 0.7 | 3.2 | 5.57 | 11.52 | 6202 | 0.0 |  |
| 90 SEC (P5) | 0.3 | 3.5 | - | 11.92 | - | 0.0 |  |
| Tails (T2) | 1.7 | 5.2 | - | 25.81 | - | 0.0 |  |
| Tails (T1) | 94.8 | 100.0 | - | 58.41 | - | 0.0 |  |

FINES

| CUMULATIVE WEIGHT \% SIZE: |  |  |  | -0.038 mm |
| :---: | :---: | :---: | :---: | :---: |
| Mois \% | Ash $\%$ | $\mathrm{CV}(\mathrm{kcal} / \mathrm{kg})$ |  |  |
| 7.09 | 73.26 | 1013 |  |  |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal

Robb Trend Project
Coal Sample Results - 2012 Core Program

## McLeod Seam

RT-11-523C

## McLeod Seam

Sample Horizon: 21.2 to 22.9

11191 Coppersmith Place, Richmond BC V7A 5HI Canada Tel: +16042413166 Fax; +16042413126 Email: adrian.reifenstein@alsglobal.com

| CERTIFICATE OF ANALYSIS |  | Preliminary Report Final Report | 31-Jul-12 |
| :---: | :---: | :---: | :---: |
| Coal Valley Resources Inc. |  |  |  |
| 1600 Oxford Tower |  |  |  |
| 10235-101 Street |  |  |  |
| Edmonton, AB |  |  |  |
| T5J 3G1,Canada |  |  |  |
| WORKORDER: | RC12020620 |  |  |
| Hole: | RT-11-523C |  |  |
| Seam: | McLeod |  |  |
| Diameter: | 63.5 mm |  |  |
| Depth: | 21.2 m to 22.9 m |  |  |
| Plies: |  |  |  |

Raw Analysis

|  | Wt (g) | Mois\% | Ash\% | VM\% | F.C.\% | S\% | CV (kcal/kg) | CI \% | RD | ARD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Raw Coal | 7945 | 7.70 | 23.20 | 32.61 | 36.49 | 0.30 | 5084 | 0.01 | 1.53 | 1.45 |

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.
<original signed by>

## Brett Warden

Laboratory Manager

# ALS LABORATORY GROUP - COAL DIVISION 

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton,AB
T5J 3G1,Canada
WORKORDER: RC12020620

| Hole: | RT-11-523C |
| :--- | :--- |
| Seam: | McLeod |
| Diameter: | 63.5 mm |
| Depth: | 21.2 m to 22.9 m |
| Plies: |  |

# ALS LABORATORY GROUP - COAL DIVISION 

RICHMOND BC CANADA
11191 Coppersmith Place, Richmond BC V7A 5H1 Canada Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

CERTIFICATE OF ANALYSIS
Preliminary Report
31-Jul-12 Final Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada

WORKORDER:
RC12020620

Hole: RT-11-523C
Seam: McLeod
Diameter: $\quad 63.5 \mathrm{~mm}$
Depth: $\quad 21.2 \mathrm{~m}$ to 22.9 m
Plies:

DRY SIZING

ASTM Standard
of Analysis

D4749
(split with RSD)

| Size $(\mathrm{mm})$ | Weight $(\mathrm{g})$ | Weight $\%$ | Cum. Weight $\%$ |
| :---: | :---: | :---: | :---: |
| +31.5 | 0 | 0.0 | 0.0 |
| $-31.5+25$ | 12 | 0.2 | 0.2 |
| $-25+16$ | 245 | 3.1 | 3.2 |
| $-16+8$ | 993 | 12.5 | 15.7 |
| $-8+4$ | 1259 | 15.8 | 31.6 |
| $-4+2$ | 1561 | 19.7 | 51.2 |
| -2 | 3874 | 48.8 | 100.0 |

## *All losses allocated to -2mm fraction

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    Laboratory Manager
```


# ALS LABORATORY GROUP - COAL DIVISION <br> RICHMOND BC CANADA 

11191 Coppersmith Place, Richmond BC V7A 5HI Canada
Tel: +1 6042413166 Fax: +1 6042413126 Email: adrian.reifenstein@alsglobal.com

Preliminary Report
31-Jul-12
CERTIFICATE OF ANALYSIS
Final Report
Coal Valley Resources Inc.
1600 Oxford Tower
10235-101 Street
Edmonton, AB
T5J 3G1,Canada
WORKORDER: RC12020620

| Hole: | RT-11-523C |
| :--- | :--- |
| Seam: | McLeod |
| Diameter: | 63.5 mm |
| Depth: | 21.2 m to 22.9 m |

Plies:

## WET SIZING

| Size (mm) | Weight (g) | Weight \% | Cum.Weight \% |
| :---: | :---: | :---: | :---: |
| +31.5 | 0 | 0.0 | 0.0 |
| +25 | 0 | 0.0 | 0.0 |
| +16 | 85 | 1.4 | 1.4 |
| +12.5 | 163 | 2.7 | 4.1 |
| +8 | 470 | 7.9 | 12.0 |
| +4 | 904 | 15.1 | 27.1 |
| +2 | 1172 | 19.6 | 46.7 |
| +1 | 1306 | 21.8 | 68.6 |
| +0.5 | 636 | 10.6 | 79.2 |
| +0.25 | 303 | 5.1 | 84.2 |
| +0.15 | 131 | 2.2 | 86.4 |
| +0.063 | 301 | 5.0 | 91.5 |
| +0.038 | 142 | 2.4 | 93.8 |
| -0.038 | 368 | 6.2 | 100.0 |

ASTM Standard of Analysis

D4749 (split with RSD)

## *All losses allocated to -0.038 mm fraction

Sample was attrited in maximum 50 kg lots with 18 cubes and 150 L of water or equivalent mass for $5 \mathrm{~min} @ 20 \mathrm{rpm}$

We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal.

```
<original signed by>
    Brett Warden
    Laboratory Manager
```



FROTH FLOTATION

| SIZE: $0.15 \mathrm{~mm} \times 0.038 \mathrm{~mm}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TIME | WT(g) | WT\% | Mois \% | Ash \% | GCV (kcal/kg) | FSI |
| 15 SEC | 1 | 0.2 | NSS | NSS | NSS | NSS |
| 30 SEC | 1 | 0.2 | NSS | NSS | NSS | NSS |
| 60 SEC | 1 | 0.2 | NSS | NSS | NSS | NSS |
| 90 SEC | 0 | 0.1 | NSS | NSS | NSS | NSS |
| Tails (T2) | 15 | 4.2 | 5.54 | 54.26 | 2670 | 0.0 |
| Tails (T1) | 341 | 95.2 | 5.73 | 68.93 | 1490 | 0.0 |
| $\begin{array}{ll}\text { PARAMETERS: } & 10 \% \text { PULP DENSITY, COND. TIME } 90 \text { SECOND } \\ & 0.667 \mathrm{KG} / \mathrm{T} 10: 1 \mathrm{KERO}: \mathrm{MIBC}, \text { DENVER CELL, } 1200 \mathrm{RPM}\end{array}$ |  |  |  |  |  |  |

FINES

| SIZE: $-0.038 \mathrm{~mm}$ |  |  |
| :---: | :---: | :---: |
| Mois | Ash \% | GCV (kcalkg) |
| 5.32 | 81.49 | 647 |

NSS $=$ Not Sufficient Sample
We certify the analysis reported hereon was determined in accordance with the applicable ASTM Standard Methods of analysis of Coal

