ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **XSTRATA ZINC CANADA**
**8801 TRANS CANADA HWY**
**SUITE 400**
**SAINT-LAURENT QC H4S 1Z6**


**Finalized Date: 23-NOV-2010**
**Account: XSZNEX**

# CERTIFICATE TB10164684

Project: SLD

P.O. No.: 546-004

This report is for 135 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 5-NOV-2010.

The following have access to data associated with this certificate:

| | | |
|---|---|---|
| LUCY POTTER | | |

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION |
|---|---|
| WEI-21 | Received Sample Weight |
| DRY-21 | High Temperature Drying |
| LOG-22 | Sample login - Rcd w/o BarCode |
| CRU-31 | Fine crushing - 70% <2mm |
| SPL-21 | Split sample - riffle splitter |
| CRU-QC | Crushing QC Test |
| PUL-QC | Pulverizing QC Test |
| PUL-32 | Pulverize 1000g to 85% < 75 um |
| BAG-01 | Bulk Master for Storage |
| LOG-23 | Pulp Login - Rcvd with Barcode |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION | INSTRUMENT |
|---|---|---|
| Cu-AA46 | Ore grade Cu - aqua regia/AA | AAS |
| Pb-AA46 | Ore grade Pb - aqua regia/AA | AAS |
| Zn-AA46 | Ore grade Zn - aqua regia/AA | AAS |
| ME-OG62 | Ore Grade Elements - Four Acid | ICP-AES |
| Zn-OG62 | Ore Grade Zn - Four Acid | VARIABLE |
| Au-AA23 | Au 30g FA-AA finish | AAS |
| Ag-AA45 | Trace Ag - aqua regia/AAS | AAS |

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**ATTN: LUCY POTTER**
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**
Colin Ramshaw, Vancouver Laboratory Manager

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# CERTIFICATE OF ANALYSIS TB10164684

| Sample Description | Method / Analyte / Units / LOR | WEI-21 Recvd Wt. kg 0.02 | Cu-AA46 Cu % 0.001 | Pb-AA46 Pb % 0.001 | Zn-AA46 Zn % 0.001 | Ag-AA45 Ag ppm 0.2 | Zn-OG62 Zn % 0.001 | Au-AA23 Au ppm 0.005 |
|---|---|---|---|---|---|---|---|---|
| E460541 | | 0.77 | 0.181 | 0.005 | 0.192 | 2.1 | | |
| E460542 | | 0.77 | 0.161 | 0.002 | 0.021 | 1.6 | | |
| E460543 | | 0.73 | 0.047 | 0.003 | 0.028 | 1.2 | | |
| E460544 | | 1.08 | 0.575 | <0.001 | 0.204 | 8.2 | | |
| E460545 | | 1.45 | 0.415 | 0.002 | 0.095 | 10.5 | | |
| E460546 | | 2.31 | 0.005 | 0.001 | 0.017 | 0.2 | | |
| E460547 | | 2.23 | 0.012 | 0.001 | 0.030 | 0.4 | | |
| E460548 | | 1.36 | 0.001 | <0.001 | 0.020 | 0.2 | | |
| E460549 | | 1.37 | 0.001 | <0.001 | 0.021 | 0.3 | | |
| E460550 | | 0.08 | 0.932 | 0.032 | 9.97 | 9.5 | 10.30 | 0.079 |
| E460551 | | 1.54 | 0.014 | 0.001 | 0.025 | 0.3 | | |
| E460552 | | 1.37 | 0.098 | <0.001 | 0.025 | 1.4 | | |
| E460553 | | 1.36 | 0.008 | <0.001 | 0.021 | 0.4 | | |
| E460554 | | 1.46 | 0.009 | <0.001 | 0.007 | 0.3 | | |
| E460555 | | 2.27 | 0.001 | <0.001 | 0.011 | 0.3 | | |
| E460556 | | 1.81 | 0.005 | <0.001 | 0.009 | 0.3 | | |
| E460557 | | 2.22 | 0.011 | <0.001 | 0.009 | 0.3 | | |
| E460558 | | 1.38 | 0.017 | <0.001 | 0.065 | 0.6 | | |
| E460559 | | 0.81 | 0.133 | 0.007 | 0.124 | 2.0 | | |
| E460560 | | 1.33 | 0.016 | <0.001 | 0.018 | 0.6 | | |
| E460561 | | 1.38 | <0.001 | <0.001 | 0.026 | <0.2 | | |
| E460562 | | 1.39 | 0.004 | <0.001 | 0.036 | 0.2 | | |
| E460563 | | 1.59 | 0.047 | <0.001 | 0.700 | 0.6 | | |
| E460564 | | 1.56 | 0.040 | <0.001 | 0.422 | 0.6 | | |
| E460565 | | 1.38 | 0.002 | <0.001 | 0.016 | <0.2 | | |
| E460566 | | 2.15 | 0.003 | <0.001 | 0.021 | <0.2 | | |
| E460567 | | 2.06 | 0.008 | <0.001 | 0.028 | <0.2 | | |
| E460568 | | 1.95 | 0.004 | <0.001 | 0.033 | <0.2 | | |
| E460569 | | 1.40 | 0.008 | <0.001 | 0.012 | 0.2 | | |
| E460570 | | 1.56 | 0.003 | 0.001 | 0.013 | 0.5 | | |
| E460571 | | 1.42 | 0.001 | 0.003 | 0.009 | 0.3 | | |
| E460572 | | 1.47 | 0.003 | 0.001 | 0.009 | 0.2 | | |
| E460573 | | 0.87 | 0.011 | <0.001 | 0.012 | 0.3 | | |
| E460574 | | 1.45 | 0.001 | <0.001 | 0.014 | <0.2 | | |
| E460575 | | 0.07 | 0.953 | 0.032 | 9.97 | 9.8 | 10.50 | 0.079 |
| E460576 | | 1.43 | <0.001 | 0.001 | 0.029 | <0.2 | | |
| E460577 | | 1.67 | 0.004 | 0.001 | 0.011 | <0.2 | | |
| E460578 | | 1.43 | 0.002 | 0.001 | 0.012 | <0.2 | | |
| E460579 | | 1.32 | <0.001 | 0.001 | 0.011 | <0.2 | | |
| E460580 | | 1.38 | 0.002 | 0.001 | 0.015 | 0.2 | | |

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**Finalized Date: 23-NOV-2010**
**Account: XSZNEX**

Project: SLD

# CERTIFICATE OF ANALYSIS TB10164684

| Sample Description | Method / Analyte / Units / LOR | WEI-21 Recvd Wt. kg 0.02 | Cu-AA46 Cu % 0.001 | Pb-AA46 Pb % 0.001 | Zn-AA46 Zn % 0.001 | Ag-AA45 Ag ppm 0.2 | Zn-OG62 Zn % 0.001 | Au-AA23 Au ppm 0.005 |
|---|---|---|---|---|---|---|---|---|
| E460581 | | 1.46 | 0.001 | 0.001 | 0.015 | <0.2 | | |
| E460582 | | 1.42 | 0.003 | 0.002 | 0.011 | 0.4 | | |
| E460583 | | 1.03 | 0.008 | 0.002 | 0.012 | 0.4 | | |
| E460584 | | 1.43 | 0.008 | 0.002 | 0.017 | 0.3 | | |
| E460585 | | 1.64 | 0.014 | 0.001 | 0.009 | 0.2 | | |
| E460586 | | 1.43 | 0.010 | 0.001 | 0.005 | <0.2 | | |
| E460587 | | 1.30 | 0.030 | <0.001 | 0.006 | 0.3 | | |
| E460588 | | 1.50 | 0.009 | 0.001 | 0.011 | 0.2 | | |
| E460589 | | 1.38 | 0.017 | 0.002 | 0.020 | 0.5 | | |
| E460590 | | 1.59 | 0.002 | 0.001 | 0.011 | 0.3 | | |
| E460591 | | 1.49 | 0.003 | 0.001 | 0.003 | 0.2 | | |
| E460592 | | 1.57 | 0.003 | 0.001 | 0.003 | <0.2 | | |
| E460593 | | 1.62 | 0.003 | 0.001 | 0.004 | 0.2 | | |
| E460594 | | 1.59 | 0.002 | 0.001 | 0.003 | 0.2 | | |
| E460595 | | 1.37 | 0.001 | 0.001 | 0.006 | 0.3 | | |
| E460596 | | 1.37 | 0.001 | <0.001 | 0.003 | 0.3 | | |
| E460597 | | 1.31 | 0.006 | <0.001 | 0.004 | 0.2 | | |
| E460598 | | 1.36 | 0.004 | <0.001 | 0.004 | <0.2 | | |
| E460599 | | 1.38 | 0.003 | <0.001 | 0.004 | 0.3 | | |
| E460600 | | 0.08 | 0.931 | 0.035 | 10.00 | 9.8 | 10.40 | 0.077 |
| E460601 | | 1.45 | 0.008 | 0.001 | 0.017 | 0.3 | | |
| E460602 | | 1.42 | 0.005 | <0.001 | 0.004 | 0.2 | | |
| E460603 | | 1.39 | 0.008 | <0.001 | 0.005 | 0.3 | | |
| E460604 | | 1.58 | 0.011 | 0.001 | 0.007 | 0.3 | | |
| E460605 | | 1.42 | 0.002 | <0.001 | 0.010 | <0.2 | | |
| E460606 | | 1.46 | 0.004 | 0.005 | 0.024 | <0.2 | | |
| E460607 | | 1.33 | 0.001 | <0.001 | 0.007 | 0.2 | | |
| E460608 | | 2.28 | 0.008 | <0.001 | 0.013 | <0.2 | | |
| E460609 | | 2.13 | 0.004 | <0.001 | 0.009 | 0.2 | | |
| E460610 | | 2.19 | 0.003 | 0.001 | 0.011 | 0.2 | | |
| E460611 | | 2.15 | 0.004 | <0.001 | 0.010 | 0.2 | | |
| E460612 | | 2.19 | 0.006 | 0.001 | 0.012 | 0.2 | | |
| E460613 | | 1.87 | 0.006 | 0.001 | 0.013 | 0.3 | | |
| E460614 | | 1.90 | 0.001 | 0.001 | 0.005 | <0.2 | | |
| E460615 | | 2.13 | 0.001 | <0.001 | 0.007 | <0.2 | | |
| E460616 | | 2.08 | <0.001 | <0.001 | 0.005 | <0.2 | | |
| E460617 | | 2.15 | <0.001 | <0.001 | 0.008 | <0.2 | | |
| E460618 | | 2.14 | <0.001 | <0.001 | 0.009 | 0.2 | | |
| E460619 | | 2.11 | <0.001 | <0.001 | 0.009 | 0.2 | | |
| E460620 | | 2.04 | 0.001 | <0.001 | 0.011 | <0.2 | | |

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| Sample Description | Method / Analyte / Units / LOR | WEI-21 Recvd Wt. kg 0.02 | Cu-AA46 Cu % 0.001 | Pb-AA46 Pb % 0.001 | Zn-AA46 Zn % 0.001 | Ag-AA45 Ag ppm 0.2 | Zn-OG62 Zn % 0.001 | Au-AA23 Au ppm 0.005 |
|---|---|---|---|---|---|---|---|---|
| E460621 | | 2.11 | <0.001 | <0.001 | 0.010 | <0.2 | | |
| E460622 | | 2.12 | <0.001 | <0.001 | 0.007 | <0.2 | | |
| E460623 | | 1.89 | 0.002 | 0.001 | 0.010 | 0.3 | | |
| E460624 | | 2.06 | 0.006 | 0.001 | 0.013 | <0.2 | | |
| E460625 | | 1.73 | 0.003 | 0.001 | 0.014 | <0.2 | | |
| E460626 | | 1.96 | 0.004 | 0.001 | 0.012 | 0.2 | | |
| E460627 | | 2.15 | 0.005 | <0.001 | 0.010 | 0.2 | | |
| E460628 | | 1.44 | 0.005 | 0.001 | 0.010 | 0.2 | | |
| E460629 | | 1.02 | 0.004 | <0.001 | 0.009 | 0.2 | | |
| I599591 | | 1.12 | <0.001 | <0.001 | 0.014 | <0.2 | | |
| I599592 | | 2.21 | 0.002 | <0.001 | 0.010 | 0.5 | | |
| I599593 | | 2.35 | 0.003 | 0.001 | 0.012 | 0.4 | | |
| I599594 | | 2.26 | 0.002 | 0.001 | 0.010 | 0.5 | | |
| I599595 | | 2.18 | 0.002 | <0.001 | 0.009 | <0.2 | | |
| I599596 | | 2.09 | 0.003 | <0.001 | 0.010 | 0.4 | | |
| I599597 | | 2.27 | 0.004 | 0.001 | 0.015 | 0.6 | | |
| I599598 | | 2.28 | 0.004 | 0.001 | 0.017 | 0.4 | | |
| I599599 | | 2.22 | 0.002 | 0.004 | 0.021 | 0.6 | | |
| I599600 | | 2.15 | 0.004 | 0.002 | 0.017 | 0.8 | | |
| I599601 | | 2.09 | 0.004 | 0.001 | 0.019 | 0.6 | | |
| I599602 | | 2.09 | 0.001 | 0.001 | 0.056 | 0.4 | | |
| I599603 | | 1.41 | 0.005 | <0.001 | 0.057 | 0.4 | | |
| I599604 | | 2.04 | 0.001 | <0.001 | 0.006 | <0.2 | | |
| I599605 | | 2.03 | 0.002 | <0.001 | 0.011 | 0.3 | | |
| I599606 | | 2.05 | 0.002 | <0.001 | 0.067 | 0.2 | | |
| I599607 | | 2.03 | <0.001 | <0.001 | 0.048 | <0.2 | | |
| I599608 | | 2.09 | <0.001 | <0.001 | 0.011 | 0.2 | | |
| I599609 | | 2.09 | <0.001 | <0.001 | 0.009 | <0.2 | | |
| I599610 | | 0.07 | 0.973 | 0.036 | 10.20 | 9.9 | 10.25 | 0.063 |
| I599611 | | 1.76 | 0.005 | 0.002 | 0.029 | 0.2 | | |
| I599612 | | 1.38 | <0.001 | 0.001 | 0.013 | <0.2 | | |
| I599613 | | 2.06 | 0.002 | 0.002 | 0.010 | <0.2 | | |
| I599614 | | 2.06 | 0.003 | 0.002 | 0.012 | <0.2 | | |
| I599615 | | 1.41 | 0.021 | 0.002 | 0.041 | 0.5 | | |
| I599616 | | 2.07 | 0.004 | 0.002 | 0.040 | <0.2 | | |
| I599617 | | 2.15 | 0.002 | 0.002 | 0.013 | <0.2 | | |
| I599618 | | 2.12 | <0.001 | 0.002 | 0.027 | <0.2 | | |
| I599619 | | 2.20 | 0.006 | 0.002 | 0.042 | <0.2 | | |
| I599620 | | 2.02 | 0.011 | 0.002 | 0.058 | 0.4 | | |
| I599621 | | 2.03 | 0.011 | 0.002 | 0.042 | <0.2 | | |

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| Sample Description | Method<br>Analyte<br>Units<br>LOR | WEI-21<br>Recvd Wt.<br>kg<br>0.02 | Cu-AA46<br>Cu<br>%<br>0.001 | Pb-AA46<br>Pb<br>%<br>0.001 | Zn-AA46<br>Zn<br>%<br>0.001 | Ag-AA45<br>Ag<br>ppm<br>0.2 | Zn-OG62<br>Zn<br>%<br>0.001 | Au-AA23<br>Au<br>ppm<br>0.005 |
|---|---|---|---|---|---|---|---|---|
| I599622 | | 2.06 | 0.005 | 0.002 | 0.036 | 0.2 | | |
| I599623 | | 2.13 | 0.004 | 0.001 | 0.019 | <0.2 | | |
| I599624 | | 2.11 | 0.015 | 0.001 | 0.019 | 0.2 | | |
| I599625 | | 2.09 | 0.007 | 0.002 | 0.015 | <0.2 | | |
| I599626 | | 2.06 | 0.009 | 0.002 | 0.124 | <0.2 | | |
| I599627 | | 2.18 | 0.021 | 0.001 | 0.092 | 0.4 | | |
| I599628 | | 2.22 | 0.002 | 0.001 | 0.017 | <0.2 | | |
| I599629 | | 1.82 | 0.505 | 0.002 | 0.046 | 10.2 | | |
| I599630 | | 1.79 | 0.633 | 0.002 | 0.055 | 12.8 | | |
| I599631 | | 2.15 | 0.003 | 0.001 | 0.003 | <0.2 | | |
| I599632 | | 2.11 | 0.003 | 0.001 | 0.008 | <0.2 | | |
| I599633 | | 1.40 | 0.008 | 0.003 | 0.011 | 0.2 | | |
| I599634 | | 2.12 | 0.022 | 0.001 | 0.014 | 0.4 | | |
| I599635 | | 1.95 | 0.007 | 0.002 | 0.018 | <0.2 | | |
| I599636 | | 0.08 | 0.984 | 0.035 | 10.70 | 10.2 | 10.45 | 0.065 |