ALS Canada Ltd.

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

To: **OSISKO MINING LTD.**
**P.O. BOX 996**
**KIRKLAND LAKE ON P2N 3L1**


**Finalized Date: 26-MAR-2014**
**Account: OSIKLI**

# CERTIFICATE SD14042678

Project: KL_LITHO

P.O. No.: KL 000436

This report is for 40 Rock samples submitted to our lab in Sudbury, ON, Canada on 12-MAR-2014.

The following have access to data associated with this certificate:

| | | |
|---|---|---|
| MIKE FELL | FRANK PLOEGER | ANDREW STOKES |

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION |
|---|---|
| FND-02 | Find Sample for Addn Analysis |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION | INSTRUMENT |
|---|---|---|
| ME-ICP61 | 33 element four acid ICP-AES | ICP-AES |

To: **OSISKO MINING LTD.**
**ATTN: ANDREW STOKES**
**P.O. BOX 996**
**KIRKLAND LAKE ON P2N 3L1**

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.

***** See Appendix Page for comments regarding this certificate *****

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

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**KIRKLAND LAKE ON P2N 3L1**


**Finalized Date: 26-MAR-2014**
**Account: OSIKLI**

Project: KL_LITHO

# CERTIFICATE OF ANALYSIS SD14042678

| Sample Description | Method | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | K | La |
| | Units | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | % | ppm |
| | LOR | 0.5 | 0.01 | 5 | 10 | 0.5 | 2 | 0.01 | 0.5 | 1 | 1 | 1 | 0.01 | 10 | 0.01 | 10 |
| L174151 | | <0.5 | 6.97 | <5 | 370 | 0.5 | 2 | 2.46 | <0.5 | 12 | 20 | 26 | 4.25 | 20 | 1.26 | 10 |
| L174152 | | <0.5 | 7.72 | 6 | 290 | 0.8 | 4 | 2.43 | <0.5 | 46 | 47 | 53 | 4.85 | 20 | 0.87 | 10 |
| L174153 | | <0.5 | 7.05 | 5 | 190 | <0.5 | 6 | 5.03 | <0.5 | 33 | 16 | 62 | 7.02 | 20 | 0.53 | 10 |
| L174154 | | <0.5 | 6.64 | <5 | 210 | 0.5 | <2 | 2.60 | <0.5 | 5 | 9 | 12 | 2.91 | 10 | 0.64 | 10 |
| L174155 | | <0.5 | 7.37 | <5 | 310 | 0.7 | 3 | 2.96 | <0.5 | 5 | 38 | 20 | 3.20 | 20 | 1.01 | 10 |
| L174421 | | <0.5 | 7.04 | 47 | 2760 | 2.8 | <2 | 5.15 | <0.5 | 22 | 101 | 103 | 6.04 | 20 | 4.82 | 80 |
| L174422 | | <0.5 | 6.96 | 25 | 720 | 1.4 | <2 | 1.60 | <0.5 | 19 | 227 | 43 | 3.59 | 20 | 1.18 | 30 |
| L174423 | | <0.5 | 7.73 | 5 | 30 | 0.7 | 3 | 8.63 | <0.5 | 24 | 17 | 39 | 5.36 | 30 | 0.05 | 10 |
| L174424 | | <0.5 | 6.57 | 30 | 910 | 1.1 | 2 | 3.13 | <0.5 | 14 | 135 | 17 | 3.16 | 10 | 4.80 | 20 |
| L174425 | | <0.5 | 5.11 | 19 | 610 | 2.4 | 6 | 7.50 | <0.5 | 33 | 134 | 59 | 7.19 | 20 | 2.46 | 50 |
| L174426 | | <0.5 | 7.49 | 8 | 1120 | 2.1 | 5 | 2.24 | <0.5 | 21 | 110 | 14 | 4.73 | 20 | 3.42 | 30 |
| L174427 | | <0.5 | 5.71 | 17 | 3470 | 25.6 | 10 | 3.07 | <0.5 | 30 | 8 | 285 | 10.95 | 20 | 3.81 | 210 |
| L174428 | | <0.5 | 9.43 | <5 | 3070 | 9.8 | <2 | 1.34 | <0.5 | 7 | 4 | 86 | 3.89 | 30 | 4.94 | 80 |
| L174429 | | <0.5 | 7.10 | 27 | 1880 | 2.8 | 3 | 4.28 | <0.5 | 23 | 88 | 101 | 5.63 | 20 | 4.08 | 90 |
| L174430 | | <0.5 | 7.98 | <5 | 210 | 0.6 | <2 | 2.11 | <0.5 | 8 | 20 | 23 | 2.39 | 20 | 0.42 | 10 |
| L174431 | | <0.5 | 6.33 | 15 | 120 | 0.5 | 3 | 5.00 | <0.5 | 28 | 5 | 84 | 8.75 | 20 | 0.53 | <10 |
| L174432 | | <0.5 | 7.46 | 6 | 40 | 0.9 | 3 | 1.27 | <0.5 | 19 | 131 | <1 | 3.98 | 20 | 0.06 | 40 |
| L174433 | | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS |
| L174434 | | <0.5 | 3.28 | <5 | 480 | 1.9 | <2 | 3.50 | <0.5 | 94 | 1635 | 31 | 6.32 | 10 | 1.93 | <10 |
| L174435 | | <0.5 | 6.27 | <5 | 170 | <0.5 | 8 | 6.10 | <0.5 | 115 | 2290 | 95 | 9.40 | 10 | 0.43 | <10 |
| L174436 | | <0.5 | 3.77 | <5 | 100 | 0.7 | 4 | 7.86 | <0.5 | 63 | 284 | 71 | 10.65 | 10 | 0.43 | 10 |
| L174437 | | <0.5 | 6.49 | 6 | 170 | 0.6 | 4 | 3.96 | <0.5 | 58 | 43 | 221 | 10.65 | 20 | 0.52 | 10 |
| L174438 | | <0.5 | 4.77 | 5 | 190 | 0.8 | 9 | 5.72 | <0.5 | 76 | 20 | 428 | 12.70 | 20 | 0.72 | 10 |
| L174439 | | <0.5 | 6.67 | <5 | 270 | 0.5 | 6 | 5.42 | <0.5 | 47 | 15 | 133 | 9.64 | 20 | 0.79 | <10 |
| L174440 | | <0.5 | 2.50 | <5 | 50 | <0.5 | 4 | 9.18 | <0.5 | 55 | 1055 | 58 | 7.81 | 10 | 0.40 | <10 |
| I279862 | | <0.5 | 7.21 | <5 | 70 | <0.5 | 11 | 4.01 | <0.5 | 37 | 103 | 88 | 9.16 | 20 | 0.03 | <10 |
| I279863 | | <0.5 | 7.60 | 10 | 50 | <0.5 | 5 | 2.71 | <0.5 | 48 | 233 | 109 | 8.66 | 20 | 0.03 | <10 |
| I279864 | | <0.5 | 7.57 | 6 | 120 | <0.5 | 8 | 4.90 | <0.5 | 38 | 116 | 85 | 8.09 | 20 | 0.13 | <10 |
| I279865 | | <0.5 | 6.86 | <5 | 430 | <0.5 | <2 | 5.64 | <0.5 | 39 | 164 | 87 | 7.70 | 20 | 0.45 | <10 |
| I279866 | | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS |
| I279867 | | <0.5 | 7.24 | <5 | 130 | <0.5 | <2 | 6.48 | <0.5 | 39 | 162 | 106 | 7.67 | 20 | 0.21 | <10 |
| I279868 | | <0.5 | 7.02 | <5 | 60 | <0.5 | 2 | 4.60 | <0.5 | 43 | 168 | 100 | 7.88 | 20 | 0.13 | <10 |
| I279869 | | <0.5 | 7.30 | <5 | 100 | <0.5 | 4 | 6.06 | <0.5 | 41 | 206 | 84 | 6.77 | 20 | 0.19 | <10 |
| I279870 | | <0.5 | 7.10 | <5 | 50 | <0.5 | 5 | 6.35 | <0.5 | 41 | 124 | 100 | 9.57 | 20 | 0.07 | <10 |
| I279871 | | <0.5 | 7.34 | 8 | 70 | <0.5 | 7 | 5.95 | <0.5 | 42 | 198 | 106 | 8.09 | 20 | 0.11 | <10 |
| I279872 | | <0.5 | 8.01 | <5 | 160 | <0.5 | 3 | 6.51 | <0.5 | 51 | 250 | 120 | 6.83 | 20 | 0.26 | <10 |
| I279873 | | <0.5 | 7.66 | 7 | 50 | <0.5 | 3 | 6.78 | <0.5 | 39 | 189 | 107 | 8.30 | 20 | 0.08 | <10 |
| I279874 | | <0.5 | 7.52 | 5 | 270 | <0.5 | 3 | 6.29 | <0.5 | 42 | 223 | 112 | 7.29 | 20 | 0.56 | <10 |
| I279875 | | <0.5 | 7.23 | 9 | 170 | <0.5 | 9 | 6.54 | <0.5 | 40 | 220 | 96 | 6.94 | 20 | 0.30 | <10 |
| I279876 | | <0.5 | 7.04 | 5 | 40 | <0.5 | <2 | 5.71 | <0.5 | 45 | 121 | 65 | 9.82 | 20 | 0.05 | <10 |

***** See Appendix Page for comments regarding this certificate *****

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**Finalized Date: 26-MAR-2014**
**Account: OSIKLI**

Project: KL_LITHO

# CERTIFICATE OF ANALYSIS SD14042678

| Sample Description | Method | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Mg | Mn | Mo | Na | Ni | P | Pb | S | Sb | Sc | Sr | Th | Ti | Tl | U |
| | Units | % | ppm | ppm | % | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm |
| | LOR | 0.01 | 5 | 1 | 0.01 | 1 | 10 | 2 | 0.01 | 5 | 1 | 1 | 20 | 0.01 | 10 | 10 |
| L174151 | | 0.59 | 1055 | 1 | 1.81 | 17 | 730 | 3 | 0.03 | <5 | 17 | 157 | <20 | 0.34 | <10 | <10 |
| L174152 | | 0.58 | 1260 | 1 | 2.54 | 48 | 700 | 6 | 0.01 | <5 | 10 | 246 | <20 | 0.15 | <10 | <10 |
| L174153 | | 1.47 | 1355 | <1 | 2.59 | 36 | 780 | 2 | <0.01 | <5 | 16 | 151 | <20 | 0.27 | <10 | <10 |
| L174154 | | 0.34 | 899 | <1 | 2.72 | 7 | 550 | <2 | <0.01 | <5 | 9 | 199 | <20 | 0.21 | <10 | <10 |
| L174155 | | 0.43 | 1215 | <1 | 2.84 | 12 | 700 | 3 | <0.01 | <5 | 8 | 205 | <20 | 0.20 | <10 | <10 |
| L174421 | | 2.70 | 1280 | <1 | 2.00 | 29 | 2560 | 18 | 0.42 | <5 | 22 | 911 | <20 | 0.36 | <10 | <10 |
| L174422 | | 1.81 | 567 | <1 | 3.46 | 80 | 820 | 16 | 0.24 | <5 | 13 | 484 | <20 | 0.21 | <10 | <10 |
| L174423 | | 1.77 | 859 | 1 | 0.63 | 42 | 600 | <2 | 0.01 | <5 | 22 | 37 | <20 | 0.59 | <10 | <10 |
| L174424 | | 1.84 | 974 | <1 | 0.60 | 85 | 620 | 10 | 0.33 | 5 | 12 | 275 | <20 | 0.14 | <10 | <10 |
| L174425 | | 4.24 | 1450 | <1 | 2.17 | 55 | 2400 | 12 | 0.01 | <5 | 35 | 765 | <20 | 0.58 | 10 | <10 |
| L174426 | | 1.85 | 669 | <1 | 3.16 | 36 | 1340 | 5 | 1.93 | <5 | 15 | 561 | <20 | 0.19 | <10 | <10 |
| L174427 | | 1.82 | 3270 | 1 | 0.87 | 7 | 3730 | 117 | 0.39 | <5 | 11 | 1585 | 50 | 1.09 | 10 | <10 |
| L174428 | | 0.58 | 999 | <1 | 2.50 | 3 | 1260 | 14 | 0.11 | 6 | 4 | 555 | 30 | 0.33 | <10 | <10 |
| L174429 | | 2.33 | 1020 | <1 | 2.76 | 41 | 2930 | 21 | 0.40 | <5 | 18 | 824 | 20 | 0.38 | <10 | <10 |
| L174430 | | 0.99 | 475 | <1 | 5.30 | 12 | 640 | <2 | <0.01 | <5 | 10 | 301 | <20 | 0.35 | <10 | <10 |
| L174431 | | 1.83 | 2590 | <1 | 1.89 | 19 | 560 | <2 | 0.13 | <5 | 40 | 195 | <20 | 0.87 | <10 | <10 |
| L174432 | | 2.78 | 388 | <1 | 4.72 | 49 | 1370 | <2 | 0.01 | <5 | 14 | 150 | <20 | 0.27 | <10 | <10 |
| L174433 | | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS |
| L174434 | | 9.81 | 1105 | <1 | 0.04 | 1030 | 30 | 7 | 0.12 | <5 | 21 | 394 | <20 | 0.08 | 10 | <10 |
| L174435 | | 3.57 | 3410 | <1 | 1.25 | 1400 | 170 | 2 | 0.47 | <5 | 37 | 87 | <20 | 0.39 | 10 | <10 |
| L174436 | | 5.29 | 1595 | <1 | 1.95 | 188 | 350 | <2 | 0.13 | <5 | 30 | 177 | <20 | 0.73 | <10 | <10 |
| L174437 | | 3.48 | 1345 | <1 | 2.16 | 80 | 540 | <2 | 0.32 | <5 | 29 | 254 | <20 | 0.86 | <10 | <10 |
| L174438 | | 3.88 | 2110 | <1 | 2.06 | 151 | 410 | 2 | 0.10 | 5 | 20 | 181 | <20 | 0.78 | 10 | <10 |
| L174439 | | 3.33 | 1350 | <1 | 1.94 | 56 | 500 | 3 | 0.21 | <5 | 22 | 278 | <20 | 0.83 | 10 | <10 |
| L174440 | | 6.43 | 1470 | <1 | 0.72 | 253 | 230 | 4 | 0.02 | <5 | 33 | 191 | <20 | 0.49 | <10 | <10 |
| I279862 | | 3.75 | 2120 | <1 | 1.53 | 44 | 580 | 3 | 0.06 | <5 | 43 | 161 | <20 | 0.94 | <10 | <10 |
| I279863 | | 2.64 | 1540 | <1 | 2.64 | 117 | 300 | <2 | 0.08 | <5 | 41 | 79 | <20 | 0.75 | <10 | <10 |
| I279864 | | 3.05 | 1530 | <1 | 1.76 | 69 | 420 | 2 | 0.09 | <5 | 38 | 128 | <20 | 0.81 | <10 | <10 |
| I279865 | | 3.79 | 1620 | <1 | 1.61 | 93 | 390 | <2 | 0.03 | <5 | 37 | 135 | <20 | 0.66 | 10 | <10 |
| I279866 | | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS | NSS |
| I279867 | | 3.92 | 1645 | <1 | 2.26 | 92 | 410 | 3 | 0.06 | <5 | 37 | 63 | <20 | 0.68 | 10 | <10 |
| I279868 | | 4.32 | 1605 | <1 | 1.67 | 96 | 350 | <2 | 0.18 | <5 | 37 | 42 | <20 | 0.65 | <10 | <10 |
| I279869 | | 4.76 | 1200 | <1 | 1.56 | 98 | 220 | <2 | 0.04 | <5 | 34 | 87 | <20 | 0.41 | 10 | <10 |
| I279870 | | 3.40 | 1585 | <1 | 1.13 | 74 | 490 | 2 | 0.13 | <5 | 41 | 197 | <20 | 0.88 | 10 | <10 |
| I279871 | | 2.41 | 1590 | <1 | 1.04 | 104 | 280 | <2 | 0.06 | <5 | 38 | 122 | <20 | 0.64 | <10 | <10 |
| I279872 | | 2.36 | 1555 | <1 | 1.86 | 132 | 210 | <2 | 0.06 | <5 | 43 | 142 | <20 | 0.56 | <10 | <10 |
| I279873 | | 3.90 | 1245 | <1 | 1.29 | 107 | 280 | <2 | 0.06 | <5 | 37 | 206 | <20 | 0.64 | 10 | <10 |
| I279874 | | 5.25 | 1335 | <1 | 1.16 | 104 | 200 | 6 | 0.03 | <5 | 37 | 127 | <20 | 0.44 | <10 | <10 |
| I279875 | | 4.91 | 1215 | <1 | 1.21 | 130 | 200 | <2 | 0.02 | <5 | 34 | 129 | <20 | 0.43 | 10 | <10 |
| I279876 | | 2.53 | 1805 | <1 | 1.67 | 79 | 740 | 3 | 0.10 | <5 | 42 | 198 | <20 | 1.12 | <10 | <10 |

***** See Appendix Page for comments regarding this certificate *****

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**Finalized Date: 26-MAR-2014**
**Account: OSIKLI**

Project: KL_LITHO

# CERTIFICATE OF ANALYSIS SD14042678

| Sample Description | Method<br>Analyte<br>Units<br>LOR | ME-ICP61<br>V<br>ppm<br>1 | ME-ICP61<br>W<br>ppm<br>10 | ME-ICP61<br>Zn<br>ppm<br>2 |
|---|---|---|---|---|
| L174151 | | 117 | <10 | 143 |
| L174152 | | 65 | <10 | 196 |
| L174153 | | 109 | <10 | 168 |
| L174154 | | 63 | <10 | 53 |
| L174155 | | 53 | <10 | 65 |
| L174421 | | 207 | <10 | 137 |
| L174422 | | 98 | <10 | 75 |
| L174423 | | 220 | <10 | 84 |
| L174424 | | 91 | <10 | 49 |
| L174425 | | 250 | <10 | 127 |
| L174426 | | 188 | <10 | 100 |
| L174427 | | 599 | <10 | 399 |
| L174428 | | 489 | 30 | 82 |
| L174429 | | 183 | <10 | 87 |
| L174430 | | 75 | <10 | 49 |
| L174431 | | 397 | <10 | 122 |
| L174432 | | 127 | <10 | 89 |
| L174433 | | NSS | NSS | NSS |
| L174434 | | 150 | 10 | 106 |
| L174435 | | 229 | <10 | 132 |
| L174436 | | 241 | <10 | 117 |
| L174437 | | 278 | <10 | 123 |
| L174438 | | 206 | <10 | 161 |
| L174439 | | 254 | <10 | 111 |
| L174440 | | 188 | <10 | 114 |
| I279862 | | 420 | <10 | 112 |
| I279863 | | 375 | <10 | 91 |
| I279864 | | 357 | <10 | 89 |
| I279865 | | 309 | <10 | 68 |
| I279866 | | NSS | NSS | NSS |
| I279867 | | 318 | <10 | 91 |
| I279868 | | 307 | <10 | 83 |
| I279869 | | 242 | <10 | 66 |
| I279870 | | 379 | <10 | 97 |
| I279871 | | 321 | <10 | 77 |
| I279872 | | 309 | <10 | 63 |
| I279873 | | 317 | <10 | 71 |
| I279874 | | 257 | <10 | 70 |
| I279875 | | 242 | <10 | 67 |
| I279876 | | 416 | <10 | 105 |

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**Account: OSIKLI**

Project: KL_LITHO

# CERTIFICATE OF ANALYSIS SD14042678

## CERTIFICATE COMMENTS

### ANALYTICAL COMMENTS

NSS is non-sufficient sample.
Applies to Method: ALL METHODS

### LABORATORY ADDRESSES

Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.
Applies to Method: FND-02

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Applies to Method: ME-ICP61