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Acme Analytical Laboratories (Vancouver) Ltd.  
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PHONE (604) 253-3158

Client: **Pacific Ridge Exploration Ltd.**

Suite 1100, 1111 Melville St,  
Vancouver BC V6E 3V6 CANADA

Submitted By: Gerry Carlson  
Receiving Lab: Canada-Whitehorse  
Received: September 18, 2013  
Report Date: October 03, 2013  
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## CERTIFICATE OF ANALYSIS

WHI13000434.1

### CLIENT JOB INFORMATION

Project: MPA  
Shipment ID: MPAGP13-002  
P.O. Number  
Number of Samples: 33

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

| Procedure Code | Number of Samples | Code Description                                  | Test Wgt (g) | Report Status | Lab |
|----------------|-------------------|---|--------------|---------------|-----|
| R200-250       | 31                | Crush, split and pulverize 250 g rock to 200 mesh |              |               | WHI |
| G601           | 33                | Fire Assay Fusion Au - AAS Finish                 | 30           | Completed     | VAN |
| IDX1           | 33                | 1:1:1 Aqua Regia digestion ICP-MS analysis        | 0.5          | Completed     | VAN |

### SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Pacific Ridge Exploration Ltd.  
Suite 1100, 1111 Melville St,  
Vancouver BC V6E 3V6  
CANADA

CC: John Brock



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: MPA

Report Date: October 03, 2013

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Part: 1 of 2

**CERTIFICATE OF ANALYSIS****WHI13000434.1**

| Method<br>Analyte<br>Unit<br>MDL | WGHT      | G6    | 1DX   | 1DX  | 1DX   | 1DX  | 1DX | 1DX  | 1DX  | 1DX | 1DX  | 1DX  | 1DX  | 1DX   | 1DX | 1DX | 1DX  | V    | Ca   |    |      |
|----------------------------------|-----------|-------|-------|------|-------|------|-----|------|------|-----|------|------|------|-------|-----|-----|------|------|------|----|------|
|                                  | Wgt       | Au    | Mo    | Cu   | Pb    | Zn   | Ag  | Ni   | Co   | Mn  | Fe   | As   | Au   | Th    | Sr  | Cd  | Sb   | Bi   | %    |    |      |
|                                  | kg        | ppm   | ppm   | ppm  | ppm   | ppm  | ppm | ppm  | ppm  | ppm | %    | ppm  | ppb  | ppm   | ppm | ppm | ppm  | ppm  | %    |    |      |
|                                  | 0.01      | 0.005 | 0.1   | 0.1  | 0.1   | 1    | 0.1 | 0.1  | 0.1  | 1   | 0.01 | 0.5  | 0.5  | 0.1   | 1   | 0.1 | 0.1  | 2    | 0.01 |    |      |
| 1374304                          | Rock      | 0.92  | 0.026 | 2.6  | 105.3 | 7.5  | 37  | 0.2  | 1.7  | 2.4 | 242  | 1.37 | <0.5 | 26.8  | 5.7 | 11  | <0.1 | 0.3  | 0.1  | 2  | 0.10 |
| 1374305                          | Rock      | 0.99  | 0.123 | 3.8  | 113.0 | 6.5  | 37  | 0.2  | 1.9  | 3.2 | 359  | 1.70 | 1.0  | 75.4  | 6.5 | 11  | <0.1 | 0.6  | 0.1  | 3  | 0.10 |
| 1374306                          | Rock      | 1.02  | 0.283 | 3.9  | 93.5  | 4.6  | 42  | 0.3  | 2.6  | 2.4 | 356  | 1.67 | <0.5 | 113.1 | 7.0 | 10  | 0.1  | 0.2  | 0.1  | 3  | 0.13 |
| 1374307                          | Rock      | 0.94  | 0.102 | 3.5  | 54.9  | 6.3  | 42  | <0.1 | 2.8  | 3.1 | 456  | 1.84 | 0.9  | 89.3  | 6.4 | 12  | 0.2  | 0.2  | 0.1  | 6  | 0.09 |
| 1374308                          | Rock      | 0.97  | 0.260 | 3.9  | 149.8 | 12.8 | 43  | 0.3  | 1.9  | 3.7 | 371  | 1.89 | 1.3  | 159.5 | 7.7 | 20  | 0.1  | 0.2  | 0.1  | 6  | 0.08 |
| 1374309                          | Rock      | 0.77  | 0.066 | 2.8  | 80.0  | 5.9  | 54  | <0.1 | 1.9  | 3.1 | 425  | 1.79 | 0.9  | 26.1  | 7.5 | 23  | <0.1 | 0.3  | <0.1 | 5  | 0.12 |
| 1374310                          | Rock      | 0.75  | 0.040 | 2.5  | 34.4  | 5.9  | 41  | <0.1 | 2.6  | 2.6 | 302  | 1.34 | 1.1  | 26.0  | 4.5 | 24  | <0.1 | 0.2  | <0.1 | 5  | 0.07 |
| 1374311                          | Rock      | 0.87  | 0.053 | 2.4  | 34.6  | 10.6 | 49  | <0.1 | 3.7  | 3.7 | 377  | 1.84 | 1.9  | 29.7  | 5.1 | 12  | <0.1 | 0.2  | 0.1  | 9  | 0.11 |
| 1374312                          | Rock      | 0.85  | 0.024 | 2.4  | 26.1  | 5.2  | 37  | <0.1 | 3.5  | 3.2 | 337  | 1.54 | 2.8  | 14.4  | 4.9 | 11  | <0.1 | 0.3  | 0.1  | 8  | 0.09 |
| 1374313                          | Rock      | 0.74  | 0.038 | 2.4  | 35.0  | 4.8  | 32  | <0.1 | 2.7  | 2.7 | 278  | 1.51 | 1.4  | 16.5  | 5.0 | 11  | <0.1 | 0.3  | <0.1 | 4  | 0.07 |
| 1374314                          | Rock      | 1.00  | 0.075 | 5.0  | 45.9  | 12.3 | 48  | <0.1 | 1.9  | 3.2 | 375  | 1.71 | 1.8  | 62.4  | 6.7 | 14  | <0.1 | 0.2  | 0.2  | 5  | 0.14 |
| 1374315                          | Rock      | 0.75  | 0.029 | 6.8  | 36.6  | 10.2 | 64  | 0.1  | 1.5  | 3.8 | 1021 | 1.67 | <0.5 | 33.3  | 9.8 | 72  | 0.1  | 0.1  | 0.2  | 5  | 0.23 |
| 1374316                          | Rock      | 0.75  | 0.038 | 4.7  | 54.3  | 6.9  | 36  | <0.1 | 1.8  | 2.4 | 293  | 1.32 | 0.5  | 38.0  | 6.2 | 8   | <0.1 | 0.1  | <0.1 | 3  | 0.08 |
| 1374317                          | Rock      | 0.80  | 0.157 | 4.4  | 41.3  | 10.2 | 56  | <0.1 | 4.3  | 3.3 | 511  | 1.91 | 1.2  | 105.2 | 5.7 | 13  | 0.4  | 0.1  | 0.1  | 8  | 0.10 |
| 1374318                          | Rock      | 0.54  | 0.066 | 3.9  | 84.4  | 6.8  | 36  | <0.1 | 2.8  | 4.0 | 312  | 1.60 | <0.5 | 90.5  | 6.4 | 9   | <0.1 | 0.2  | 0.1  | 5  | 0.08 |
| 1266798                          | Rock Pulp | 0.05  | 0.011 | 2.4  | 23.1  | 2.3  | 40  | 0.3  | 22.7 | 9.8 | 391  | 2.39 | 3.7  | 7.0   | 0.8 | 39  | 0.1  | 0.3  | <0.1 | 60 | 0.83 |
| 1374319                          | Rock      | 0.86  | 3.081 | 6.9  | 36.0  | 14.0 | 38  | 1.1  | 3.1  | 4.1 | 728  | 1.71 | 0.9  | 1751  | 5.4 | 14  | 0.2  | 0.2  | 0.3  | 7  | 0.09 |
| 1374320                          | Rock      | 0.76  | 0.110 | 6.3  | 23.3  | 7.2  | 29  | 0.1  | 3.3  | 2.4 | 376  | 1.31 | 1.7  | 23.6  | 7.3 | 11  | <0.1 | 0.2  | <0.1 | 8  | 0.09 |
| 1374321                          | Rock      | 0.69  | 0.040 | 3.2  | 44.5  | 6.3  | 173 | 0.1  | 1.9  | 5.8 | 963  | 3.82 | 0.6  | 28.9  | 5.9 | 22  | 0.2  | 0.2  | 0.3  | 24 | 0.30 |
| 1374322                          | Rock      | 0.57  | 0.018 | 2.5  | 43.1  | 6.5  | 53  | 0.2  | 4.1  | 3.6 | 374  | 1.75 | 1.0  | 478.3 | 7.1 | 12  | 0.1  | 0.1  | 0.2  | 13 | 0.16 |
| 1374323                          | Rock      | 0.84  | 0.009 | 5.5  | 44.3  | 3.9  | 81  | <0.1 | 2.8  | 4.7 | 491  | 2.62 | 0.9  | 8.9   | 6.8 | 27  | <0.1 | 0.1  | <0.1 | 22 | 0.20 |
| 1374324                          | Rock      | 0.64  | 0.015 | 5.8  | 37.6  | 5.7  | 45  | <0.1 | 4.0  | 3.6 | 450  | 1.49 | <0.5 | 13.9  | 8.3 | 12  | <0.1 | 0.1  | 0.1  | 7  | 0.13 |
| 1374325                          | Rock      | 0.96  | 0.018 | 2.4  | 29.6  | 12.1 | 73  | <0.1 | 3.9  | 4.4 | 578  | 2.14 | 1.5  | 13.5  | 7.0 | 14  | <0.1 | 0.2  | 0.2  | 15 | 0.20 |
| 1374326                          | Rock      | 0.69  | 0.013 | 2.1  | 283.1 | 4.4  | 28  | <0.1 | 1.2  | 3.7 | 212  | 1.19 | <0.5 | 8.4   | 6.6 | 10  | <0.1 | <0.1 | <0.1 | <2 | 0.14 |
| 1374327                          | Rock      | 0.78  | 0.050 | 4.5  | 27.9  | 4.0  | 34  | <0.1 | 4.0  | 2.6 | 515  | 1.39 | <0.5 | 6.5   | 3.3 | 7   | 0.1  | 0.2  | <0.1 | 8  | 0.06 |
| 1374328                          | Rock      | 0.73  | 0.042 | 14.8 | 68.6  | 8.0  | 71  | <0.1 | 5.9  | 6.7 | 574  | 2.45 | 1.0  | 18.2  | 6.7 | 16  | 0.1  | 0.4  | 0.4  | 28 | 0.24 |
| 1374329                          | Rock      | 0.80  | 0.066 | 3.6  | 73.1  | 6.4  | 69  | 0.1  | 7.8  | 6.7 | 498  | 2.63 | 2.2  | 212.0 | 6.6 | 17  | <0.1 | 0.2  | 0.3  | 28 | 0.23 |
| 1374330                          | Rock      | 0.85  | 0.024 | 2.3  | 37.8  | 5.5  | 43  | <0.1 | 7.7  | 3.9 | 307  | 1.72 | 2.0  | 36.1  | 5.8 | 17  | 0.1  | <0.1 | 0.1  | 17 | 0.15 |
| 1374331                          | Rock      | 0.85  | 0.014 | 1.8  | 51.9  | 5.2  | 57  | 0.2  | 4.0  | 3.3 | 456  | 1.69 | 0.9  | 7.2   | 7.2 | 10  | 0.1  | <0.1 | 1.1  | 8  | 0.20 |
| 1374332                          | Rock      | 0.80  | 0.014 | 4.2  | 76.6  | 8.8  | 80  | 0.1  | 6.1  | 5.3 | 676  | 2.21 | 1.6  | 10.0  | 7.0 | 12  | 0.2  | 0.1  | 0.3  | 13 | 0.15 |

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.

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Project: MPA

Report Date: October 03, 2013

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**CERTIFICATE OF ANALYSIS****WHI13000434.1**

| Method  | 1DX       | 1DX   | 1DX | 1DX  | 1DX  | 1DX   | 1DX   | 1DX  | 1DX   | 1DX   | 1DX  | 1DX  | 1DX   | 1DX | 1DX  | 1DX   | 1DX |      |      |
|---------|-----------|-------|-----|------|------|-------|-------|------|-------|-------|------|------|-------|-----|------|-------|-----|------|------|
| Analyte | P         | La    | Cr  | Mg   | Ba   | Ti    | B     | Al   | Na    | K     | W    | Hg   | Sc    | Tl  | S    | Ga    | Se  | Te   |      |
| Unit    | %         | ppm   | ppm | %    | ppm  | %     | ppm   | %    | %     | %     | ppm  | ppm  | ppm   | ppm | %    | ppm   | ppm | ppm  |      |
| MDL     | 0.001     | 1     | 1   | 0.01 | 1    | 0.001 | 20    | 0.01 | 0.001 | 0.01  | 0.1  | 0.01 | 0.1   | 0.1 | 0.05 | 1     | 0.5 | 0.2  |      |
| 1374304 | Rock      | 0.016 | 17  | 4    | 0.07 | 169   | 0.004 | <20  | 0.49  | 0.033 | 0.21 | <0.1 | 0.01  | 1.2 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374305 | Rock      | 0.018 | 20  | 4    | 0.06 | 265   | 0.002 | <20  | 0.46  | 0.043 | 0.18 | <0.1 | 0.03  | 1.8 | <0.1 | <0.05 | 1   | <0.5 | 0.3  |
| 1374306 | Rock      | 0.016 | 21  | 3    | 0.08 | 245   | 0.002 | <20  | 0.55  | 0.032 | 0.20 | <0.1 | 0.02  | 2.1 | <0.1 | <0.05 | 1   | 0.9  | <0.2 |
| 1374307 | Rock      | 0.017 | 22  | 4    | 0.06 | 222   | 0.003 | <20  | 0.50  | 0.050 | 0.19 | <0.1 | <0.01 | 1.9 | <0.1 | <0.05 | 1   | <0.5 | 0.2  |
| 1374308 | Rock      | 0.021 | 22  | 4    | 0.06 | 383   | 0.003 | <20  | 0.49  | 0.031 | 0.22 | <0.1 | <0.01 | 2.1 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374309 | Rock      | 0.023 | 21  | 3    | 0.10 | 332   | 0.010 | <20  | 0.65  | 0.035 | 0.25 | <0.1 | <0.01 | 1.9 | <0.1 | <0.05 | 2   | 0.8  | <0.2 |
| 1374310 | Rock      | 0.016 | 11  | 5    | 0.07 | 472   | 0.006 | <20  | 0.46  | 0.034 | 0.17 | <0.1 | 0.01  | 1.5 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374311 | Rock      | 0.020 | 15  | 6    | 0.11 | 275   | 0.009 | <20  | 0.57  | 0.032 | 0.18 | <0.1 | 0.01  | 2.2 | <0.1 | <0.05 | 2   | 0.7  | <0.2 |
| 1374312 | Rock      | 0.022 | 15  | 5    | 0.08 | 240   | 0.007 | <20  | 0.45  | 0.031 | 0.19 | <0.1 | 0.01  | 1.8 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374313 | Rock      | 0.016 | 15  | 5    | 0.05 | 258   | 0.003 | <20  | 0.43  | 0.041 | 0.18 | <0.1 | 0.02  | 1.8 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374314 | Rock      | 0.018 | 20  | <1   | 0.07 | 264   | 0.002 | <20  | 0.50  | 0.030 | 0.19 | <0.1 | 0.02  | 1.8 | <0.1 | <0.05 | 1   | 0.7  | <0.2 |
| 1374315 | Rock      | 0.017 | 23  | 3    | 0.17 | 710   | 0.009 | <20  | 0.94  | 0.021 | 0.23 | <0.1 | 0.01  | 1.8 | 0.1  | <0.05 | 2   | <0.5 | <0.2 |
| 1374316 | Rock      | 0.020 | 16  | 3    | 0.04 | 163   | 0.003 | <20  | 0.40  | 0.044 | 0.19 | <0.1 | <0.01 | 1.5 | <0.1 | <0.05 | <1  | 0.9  | <0.2 |
| 1374317 | Rock      | 0.020 | 20  | 5    | 0.07 | 267   | 0.005 | <20  | 0.48  | 0.041 | 0.20 | <0.1 | <0.01 | 2.5 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374318 | Rock      | 0.013 | 15  | 4    | 0.05 | 160   | 0.004 | <20  | 0.44  | 0.041 | 0.18 | <0.1 | <0.01 | 1.6 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1266798 | Rock Pulp | 0.055 | 4   | 28   | 0.78 | 91    | 0.113 | <20  | 1.55  | 0.076 | 0.13 | 12.0 | <0.01 | 4.0 | <0.1 | <0.05 | 5   | 0.7  | <0.2 |
| 1374319 | Rock      | 0.025 | 19  | 5    | 0.05 | 451   | 0.003 | <20  | 0.35  | 0.037 | 0.13 | <0.1 | 0.02  | 2.4 | <0.1 | <0.05 | <1  | 1.3  | 0.9  |
| 1374320 | Rock      | 0.017 | 21  | 6    | 0.08 | 207   | 0.008 | <20  | 0.40  | 0.038 | 0.18 | <0.1 | 0.01  | 1.9 | <0.1 | <0.05 | <1  | <0.5 | <0.2 |
| 1374321 | Rock      | 0.078 | 20  | 3    | 0.38 | 604   | 0.103 | <20  | 1.38  | 0.026 | 0.74 | <0.1 | <0.01 | 4.8 | 0.4  | <0.05 | 4   | <0.5 | <0.2 |
| 1374322 | Rock      | 0.026 | 29  | 5    | 0.18 | 205   | 0.028 | <20  | 0.68  | 0.046 | 0.22 | <0.1 | <0.01 | 2.3 | 0.1  | <0.05 | 2   | 0.7  | <0.2 |
| 1374323 | Rock      | 0.043 | 24  | 5    | 0.36 | 311   | 0.063 | <20  | 1.06  | 0.039 | 0.38 | <0.1 | 0.02  | 3.5 | 0.2  | <0.05 | 4   | 1.1  | <0.2 |
| 1374324 | Rock      | 0.021 | 20  | 6    | 0.10 | 202   | 0.008 | <20  | 0.55  | 0.037 | 0.19 | <0.1 | 0.02  | 1.8 | <0.1 | <0.05 | 1   | 0.8  | <0.2 |
| 1374325 | Rock      | 0.043 | 20  | 6    | 0.18 | 331   | 0.046 | <20  | 0.84  | 0.031 | 0.38 | <0.1 | 0.01  | 3.4 | 0.1  | <0.05 | 3   | <0.5 | <0.2 |
| 1374326 | Rock      | 0.015 | 12  | 3    | 0.07 | 91    | 0.002 | <20  | 0.52  | 0.026 | 0.20 | <0.1 | <0.01 | 1.2 | <0.1 | <0.05 | <1  | <0.5 | <0.2 |
| 1374327 | Rock      | 0.010 | 11  | 5    | 0.04 | 115   | 0.003 | <20  | 0.30  | 0.050 | 0.12 | <0.1 | 0.01  | 3.1 | <0.1 | <0.05 | <1  | <0.5 | <0.2 |
| 1374328 | Rock      | 0.029 | 18  | 11   | 0.42 | 287   | 0.038 | <20  | 1.10  | 0.035 | 0.25 | <0.1 | <0.01 | 3.9 | 0.1  | <0.05 | 3   | <0.5 | <0.2 |
| 1374329 | Rock      | 0.031 | 23  | 14   | 0.37 | 368   | 0.047 | <20  | 1.18  | 0.033 | 0.23 | <0.1 | 0.01  | 3.8 | 0.1  | <0.05 | 4   | <0.5 | <0.2 |
| 1374330 | Rock      | 0.022 | 22  | 15   | 0.24 | 277   | 0.027 | <20  | 0.69  | 0.045 | 0.15 | <0.1 | <0.01 | 2.4 | <0.1 | <0.05 | 2   | <0.5 | <0.2 |
| 1374331 | Rock      | 0.059 | 22  | 5    | 0.10 | 220   | 0.008 | <20  | 0.52  | 0.029 | 0.27 | <0.1 | <0.01 | 1.8 | <0.1 | <0.05 | 1   | <0.5 | <0.2 |
| 1374332 | Rock      | 0.036 | 25  | 10   | 0.13 | 204   | 0.012 | <20  | 0.56  | 0.038 | 0.19 | 0.1  | 0.02  | 3.5 | <0.1 | <0.05 | 2   | <0.5 | <0.2 |



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Part: 1 of 2

## CERTIFICATE OF ANALYSIS

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| Method  | WGHT      | G6   | 1DX   | 1DX | 1DX  | 1DX | 1DX | 1DX  | 1DX  | 1DX | 1DX | 1DX  | 1DX | 1DX   | 1DX | 1DX | 1DX  | 1DX | 1DX  | 1DX |      |
|---------|-----------|------|-------|-----|------|-----|-----|------|------|-----|-----|------|-----|-------|-----|-----|------|-----|------|-----|------|
|         | Analyte   | Wgt  | Au    | Mo  | Cu   | Pb  | Zn  | Ag   | Ni   | Co  | Mn  | Fe   | As  | Au    | Th  | Sr  | Cd   | Sb  | Bi   | V   | Ca   |
|         | Unit      | kg   | ppm   | ppm | ppm  | ppm | ppm | ppm  | ppm  | ppm | ppm | %    | ppm | ppb   | ppm | ppm | ppm  | ppm | ppm  | ppm | %    |
|         | MDL       | 0.01 | 0.005 | 0.1 | 0.1  | 0.1 | 1   | 0.1  | 0.1  | 0.1 | 1   | 0.01 | 0.5 | 0.5   | 0.1 | 1   | 0.1  | 0.1 | 0.1  | 2   | 0.01 |
| 1374333 | Rock      | 0.59 | 0.030 | 1.2 | 26.6 | 4.9 | 35  | <0.1 | 4.5  | 4.0 | 267 | 1.53 | 1.7 | 52.3  | 5.7 | 13  | <0.1 | 0.2 | <0.1 | 15  | 0.11 |
| 1374334 | Rock      | 0.77 | 0.082 | 1.7 | 58.7 | 7.5 | 76  | <0.1 | 25.8 | 8.7 | 483 | 2.51 | 4.0 | 60.2  | 6.8 | 33  | 0.1  | 0.3 | 0.2  | 37  | 0.30 |
| 1266799 | Rock Pulp | 0.06 | 0.729 | 4.0 | 30.9 | 5.1 | 47  | 0.2  | 24.4 | 8.5 | 377 | 2.49 | 5.9 | 389.9 | 0.9 | 38  | 0.1  | 0.8 | 0.1  | 59  | 0.80 |



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| Method  | 1DX       | 1DX   | 1DX | 1DX  | 1DX  | 1DX   | 1DX   | 1DX  | 1DX   | 1DX   | 1DX  | 1DX  | 1DX  | 1DX | 1DX  | 1DX   | 1DX | 1DX  |      |
|---------|-----------|-------|-----|------|------|-------|-------|------|-------|-------|------|------|------|-----|------|-------|-----|------|------|
| Analyte | P         | La    | Cr  | Mg   | Ba   | Ti    | B     | Al   | Na    | K     | W    | Hg   | Sc   | Tl  | S    | Ga    | Se  | Te   |      |
| Unit    | %         | ppm   | ppm | %    | ppm  | %     | ppm   | %    | %     | %     | ppm  | ppm  | ppm  | ppm | %    | ppm   | ppm | ppm  |      |
| MDL     | 0.001     | 1     | 1   | 0.01 | 1    | 0.001 | 20    | 0.01 | 0.001 | 0.01  | 0.1  | 0.01 | 0.1  | 0.1 | 0.05 | 1     | 0.5 | 0.2  |      |
| 1374333 | Rock      | 0.020 | 16  | 8    | 0.17 | 173   | 0.023 | <20  | 0.67  | 0.034 | 0.14 | <0.1 | 0.01 | 2.1 | <0.1 | <0.05 | 2   | <0.5 | <0.2 |
| 1374334 | Rock      | 0.053 | 28  | 32   | 0.45 | 369   | 0.059 | <20  | 1.27  | 0.032 | 0.17 | <0.1 | 0.04 | 5.1 | <0.1 | <0.05 | 4   | <0.5 | <0.2 |
| 1266799 | Rock Pulp | 0.052 | 4   | 29   | 0.72 | 88    | 0.108 | <20  | 1.48  | 0.079 | 0.13 | 9.3  | 0.05 | 4.2 | <0.1 | <0.05 | 5   | <0.5 | <0.2 |



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Report Date:

October 03, 2013

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**QUALITY CONTROL REPORT****WHI13000434.1**

| Method                 | WGHT      | G6    | 1DX   | 1DX    | 1DX   | 1DX   | 1DX  | 1DX  | 1DX   | 1DX  | 1DX   | 1DX   | 1DX  | 1DX   | 1DX  | 1DX  | 1DX  | 1DX  | 1DX  |       |        |      |
|------------------------|-----------|-------|-------|--------|-------|-------|------|------|-------|------|-------|-------|------|-------|------|------|------|------|------|-------|--------|------|
| Analyte                | Wgt       | Au    | Mo    | Cu     | Pb    | Zn    | Ag   | Ni   | Co    | Mn   | Fe    | As    | Au   | Th    | Sr   | Cd   | Sb   | Bi   | V    | Ca    |        |      |
| Unit                   | kg        | ppm   | ppm   | ppm    | ppm   | ppm   | ppm  | ppm  | ppm   | ppm  | %     | ppm   | ppb  | ppm   | ppm  | ppm  | ppm  | ppm  | %    |       |        |      |
| MDL                    | 0.01      | 0.005 | 0.1   | 0.1    | 0.1   | 1     | 0.1  | 0.1  | 0.1   | 1    | 0.01  | 0.5   | 0.5  | 0.5   | 0.1  | 0.1  | 0.1  | 0.1  | 2    | 0.01  |        |      |
| Pulp Duplicates        |           |       |       |        |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| 1374316                | Rock      | 0.75  | 0.038 | 4.7    | 54.3  | 6.9   | 36   | <0.1 | 1.8   | 2.4  | 293   | 1.32  | 0.5  | 38.0  | 6.2  | 8    | <0.1 | 0.1  | <0.1 | 3     | 0.08   |      |
| REP 1374316            | QC        |       |       | 5.5    | 55.9  | 6.8   | 36   | <0.1 | 2.0   | 2.4  | 297   | 1.33  | 0.7  | 71.8  | 5.9  | 9    | <0.1 | 0.1  | 0.1  | 2     | 0.08   |      |
| 1374326                | Rock      | 0.69  | 0.013 | 2.1    | 283.1 | 4.4   | 28   | <0.1 | 1.2   | 3.7  | 212   | 1.19  | <0.5 | 8.4   | 6.6  | 10   | <0.1 | <0.1 | <0.1 | <2    | 0.14   |      |
| REP 1374326            | QC        |       |       | 0.016  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| 1266799                | Rock Pulp | 0.06  | 0.729 | 4.0    | 30.9  | 5.1   | 47   | 0.2  | 24.4  | 8.5  | 377   | 2.49  | 5.9  | 389.9 | 0.9  | 38   | 0.1  | 0.8  | 0.1  | 59    | 0.80   |      |
| REP 1266799            | QC        |       |       | 0.762  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| Core Reject Duplicates |           |       |       |        |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| 1374325                | Rock      | 0.96  | 0.018 | 2.4    | 29.6  | 12.1  | 73   | <0.1 | 3.9   | 4.4  | 578   | 2.14  | 1.5  | 13.5  | 7.0  | 14   | <0.1 | 0.2  | 0.2  | 15    | 0.20   |      |
| DUP 1374325            | QC        |       |       | 0.020  | 2.8   | 29.6  | 12.8 | 73   | 0.1   | 3.7  | 4.6   | 594   | 2.21 | 1.5   | 11.0 | 7.2  | 14   | 0.3  | 0.1  | 0.2   | 15     | 0.22 |
| Reference Materials    |           |       |       |        |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD DS9                | Standard  |       |       | 13.5   | 105.3 | 126.4 | 315  | 1.6  | 40.3  | 7.1  | 585   | 2.40  | 24.3 | 118.1 | 6.3  | 74   | 2.2  | 4.9  | 6.9  | 41    | 0.73   |      |
| STD OREAS45EA          | Standard  |       |       | 1.5    | 703.5 | 14.7  | 32   | 0.2  | 381.8 | 52.9 | 377   | 24.49 | 10.3 | 54.9  | 10.4 | 4    | <0.1 | 0.2  | 0.3  | 299   | 0.04   |      |
| STD OXC109             | Standard  |       |       | 0.204  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXC109             | Standard  |       |       | 0.207  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXI96              | Standard  |       |       | 1.776  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXI96              | Standard  |       |       | 1.839  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXL93              | Standard  |       |       | 5.693  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXL93              | Standard  |       |       | 5.741  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXC109 Expected    |           |       |       | 0.201  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXI96 Expected     |           |       |       | 1.802  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD OXL93 Expected     |           |       |       | 5.841  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| STD DS9 Expected       |           |       |       | 12.84  | 108   | 126   | 317  | 1.83 | 40.3  | 7.6  | 575   | 2.33  | 25.5 | 118   | 6.38 | 69.6 | 2.4  | 4.94 | 6.32 | 40    | 0.7201 |      |
| STD OREAS45EA Expected |           |       |       | 1.39   | 709   | 14.3  | 28.9 | 0.26 | 381   | 52   | 400   | 23.51 | 9.1  | 53    | 10.7 | 3.5  | 0.02 | 0.2  | 0.26 | 303   | 0.036  |      |
| BLK                    | Blank     |       |       | 0.006  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| BLK                    | Blank     |       |       | <0.005 |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| BLK                    | Blank     |       |       | 0.006  |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| BLK                    | Blank     |       |       | <0.005 |       |       |      |      |       |      |       |       |      |       |      |      |      |      |      |       |        |      |
| BLK                    | Blank     |       |       | <0.1   | <0.1  | <0.1  | <1   | <0.1 | <0.1  | <1   | <0.01 | <0.5  | <0.5 | <0.1  | <1   | <0.1 | <0.1 | <0.1 | <2   | <0.01 |        |      |

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: MPA

Report Date: October 03, 2013

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**QUALITY CONTROL REPORT**

WHI13000434.1

| Method                 | 1DX       | 1DX    | 1DX  | 1DX  | 1DX    | 1DX   | 1DX    | 1DX  | 1DX    | 1DX    | 1DX   | 1DX  | 1DX   | 1DX  | 1DX   | 1DX    | 1DX  |      |      |
|------------------------|-----------|--------|------|------|--------|-------|--------|------|--------|--------|-------|------|-------|------|-------|--------|------|------|------|
| Analyte                | P         | La     | Cr   | Mg   | Ba     | Ti    | B      | Al   | Na     | K      | W     | Hg   | Sc    | Tl   | S     | Ga     | Se   | Te   |      |
| Unit                   | %         | ppm    | ppm  | %    | ppm    | %     | ppm    | %    | %      | %      | ppm   | ppm  | ppm   | ppm  | %     | ppm    | ppm  | ppm  |      |
| MDL                    | 0.001     | 1      | 1    | 0.01 | 1      | 0.001 | 20     | 0.01 | 0.001  | 0.01   | 0.1   | 0.01 | 0.1   | 0.1  | 0.05  | 1      | 0.5  | 0.2  |      |
| Pulp Duplicates        |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| 1374316                | Rock      | 0.020  | 16   | 3    | 0.04   | 163   | 0.003  | <20  | 0.40   | 0.044  | 0.19  | <0.1 | <0.01 | 1.5  | <0.1  | <0.05  | <1   | 0.9  | <0.2 |
| REP 1374316            | QC        | 0.019  | 17   | 3    | 0.04   | 171   | 0.003  | <20  | 0.43   | 0.045  | 0.19  | <0.1 | 0.02  | 1.6  | <0.1  | <0.05  | 1    | 0.9  | <0.2 |
| 1374326                | Rock      | 0.015  | 12   | 3    | 0.07   | 91    | 0.002  | <20  | 0.52   | 0.026  | 0.20  | <0.1 | <0.01 | 1.2  | <0.1  | <0.05  | <1   | <0.5 | <0.2 |
| REP 1374326            | QC        |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| 1266799                | Rock Pulp | 0.052  | 4    | 29   | 0.72   | 88    | 0.108  | <20  | 1.48   | 0.079  | 0.13  | 9.3  | 0.05  | 4.2  | <0.1  | <0.05  | 5    | <0.5 | <0.2 |
| REP 1266799            | QC        |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| Core Reject Duplicates |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| 1374325                | Rock      | 0.043  | 20   | 6    | 0.18   | 331   | 0.046  | <20  | 0.84   | 0.031  | 0.38  | <0.1 | 0.01  | 3.4  | 0.1   | <0.05  | 3    | <0.5 | <0.2 |
| DUP 1374325            | QC        | 0.045  | 21   | 7    | 0.19   | 342   | 0.045  | <20  | 0.88   | 0.037  | 0.40  | <0.1 | 0.01  | 3.4  | 0.2   | <0.05  | 3    | <0.5 | <0.2 |
| Reference Materials    |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD DS9                | Standard  | 0.084  | 12   | 112  | 0.63   | 313   | 0.102  | <20  | 0.96   | 0.083  | 0.41  | 2.8  | 0.21  | 2.5  | 5.1   | 0.17   | 4    | 6.2  | 5.1  |
| STD OREAS45EA          | Standard  | 0.030  | 7    | 824  | 0.11   | 139   | 0.091  | <20  | 3.16   | 0.016  | 0.05  | <0.1 | 0.03  | 78.0 | <0.1  | <0.05  | 12   | 1.6  | <0.2 |
| STD OXC109             | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXC109             | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXI96              | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXI96              | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXL93              | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXL93              | Standard  |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXC109 Expected    |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXI96 Expected     |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD OXL93 Expected     |           |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| STD DS9 Expected       |           | 0.0819 | 13.3 | 121  | 0.6165 | 330   | 0.1108 |      | 0.9577 | 0.0853 | 0.395 | 2.89 | 0.2   | 2.5  | 5.3   | 0.1615 | 4.59 | 5.2  | 5.02 |
| STD OREAS45EA Expected |           | 0.029  | 6.57 | 849  | 0.095  | 148   | 0.0875 |      | 3.13   | 0.02   | 0.053 |      |       | 78   | 0.072 | 0.036  | 11.7 | 0.6  | 0.07 |
| BLK                    | Blank     |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| BLK                    | Blank     |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| BLK                    | Blank     |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| BLK                    | Blank     |        |      |      |        |       |        |      |        |        |       |      |       |      |       |        |      |      |      |
| BLK                    | Blank     | <0.001 | <1   | <1   | <0.01  | <1    | <0.001 | <20  | <0.01  | <0.001 | <0.01 | <0.1 | <0.01 | <0.1 | <0.1  | <0.05  | <1   | <0.5 | <0.2 |



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Project: MPA

Report Date: October 03, 2013

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**QUALITY CONTROL REPORT****WHI13000434.1**

|           | WGHT       | G6    | 1DX    | 1DX  | 1DX | 1DX | 1DX | 1DX  | 1DX | 1DX | 1DX  | 1DX  | 1DX | 1DX | 1DX | 1DX | 1DX  | 1DX  | 1DX | 1DX  |      |
|-----------|------------|-------|--------|------|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|-----|------|------|-----|------|------|
|           | Wgt        | Au    | Mo     | Cu   | Pb  | Zn  | Ag  | Ni   | Co  | Mn  | Fe   | As   | Au  | Th  | Sr  | Cd  | Sb   | Bi   | V   | Ca   |      |
|           | kg         | ppm   | ppm    | ppm  | ppm | ppm | ppm | ppm  | ppm | ppm | %    | ppm  | ppb | ppm | ppm | ppm | ppm  | ppm  | ppm | %    |      |
|           | 0.01       | 0.005 | 0.1    | 0.1  | 0.1 | 1   | 0.1 | 0.1  | 0.1 | 1   | 0.01 | 0.5  | 0.5 | 0.5 | 0.1 | 1   | 0.1  | 0.1  | 0.1 | 0.01 |      |
| Prep Wash |            |       |        |      |     |     |     |      |     |     |      |      |     |     |     |     |      |      |     |      |      |
| G1-WHI    | Prep Blank |       | <0.005 | <0.1 | 2.9 | 3.2 | 46  | <0.1 | 2.5 | 4.0 | 545  | 1.93 | 0.8 | 7.8 | 4.8 | 54  | <0.1 | <0.1 | 0.1 | 35   | 0.48 |
| G1-WHI    | Prep Blank |       | <0.005 | 0.1  | 5.0 | 3.3 | 43  | <0.1 | 2.3 | 3.8 | 576  | 1.98 | 0.9 | 4.9 | 5.1 | 62  | <0.1 | <0.1 | 0.1 | 37   | 0.49 |



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Report Date: October 03, 2013

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## QUALITY CONTROL REPORT

WHI13000434.1

|           | 1DX<br>P   | 1DX<br>La | 1DX<br>Cr | 1DX<br>Mg | 1DX<br>Ba | 1DX<br>Ti  | 1DX<br>B  | 1DX<br>Al | 1DX<br>Na    | 1DX<br>K  | 1DX<br>W   | 1DX<br>Hg  | 1DX<br>Sc  | 1DX<br>Tl  | 1DX<br>S  | 1DX<br>Ga | 1DX<br>Se  | 1DX<br>Te  |
|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|--------------|-----------|------------|------------|------------|------------|-----------|-----------|------------|------------|
|           | %<br>0.001 | ppm<br>1  | ppm<br>1  | %<br>0.01 | ppm<br>1  | %<br>0.001 | ppm<br>20 | %<br>0.01 | ppm<br>0.001 | %<br>0.01 | ppm<br>0.1 | ppm<br>0.1 | ppm<br>0.1 | ppm<br>0.1 | %<br>0.05 | ppm<br>1  | ppm<br>0.5 | ppm<br>0.2 |
| Prep Wash |            |           |           |           |           |            |           |           |              |           |            |            |            |            |           |           |            |            |
| G1-WHI    | 0.065      | 11        | 6         | 0.51      | 151       | 0.120      | <20       | 0.99      | 0.089        | 0.49      | <0.1       | <0.01      | 1.9        | 0.3        | <0.05     | 4         | <0.5       | <0.2       |
| G1-WHI    | 0.067      | 13        | 6         | 0.47      | 146       | 0.115      | <20       | 0.93      | 0.093        | 0.47      | <0.1       | <0.01      | 1.9        | 0.3        | <0.05     | 5         | 0.8        | <0.2       |