



**BUREAU
VERITAS**

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MINERAL TESTING & LABORATORY SERVICES

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Reference: **aa036780.c**
Date Finished: 06/09/2018
Order: NC_018
Project: Arunta Project
Date Received: 02/08/2018
Type of Sample: Soil
Samples Analysed: **98**

FINAL ANALYSIS REPORT

Analysis of Mineral Samples

for

Northern Cobalt Ltd

67 Goodwood Road WAYVILLE SA 5034

Attention: Mr Duncan Chessell

Authorised By:

Vaughn Noble
Senior Chemist

Christopher Abbott
Senior Chemist

Jenet Hwende
Technical Quality
Manager



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ag | As | Ba | Be | Bi | Ca | Cd | Co |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 5 | 5 | 5 | 1 | 1 | 1000 | 10 | 10 |
| BLANK 1 | <5 | <5 | <5 | <1 | <1 | <1000 | <10 | <10 |
| SA3800 | <5 | <5 | 330 | <1 | <1 | 4.08% | <10 | <10 |
| SA3801 | <5 | <5 | 275 | <1 | <1 | 7.17% | <10 | <10 |
| SA3802 | <5 | <5 | 320 | 1 | <1 | 5500 | <10 | <10 |
| SA3803 | <5 | <5 | 335 | 1 | <1 | 5300 | <10 | <10 |
| SA3804 | <5 | <5 | 360 | <1 | <1 | 9.42% | <10 | <10 |
| SA3805 | <5 | <5 | 320 | <1 | <1 | 4.55% | <10 | <10 |
| SA3805 REP | <5 | <5 | 305 | 1 | <1 | 3.66% | <10 | <10 |
| SA3806 | <5 | <5 | 320 | 1 | <1 | 5100 | <10 | <10 |
| Std Nominal | <5 | 675 | 2.94% | | | | | 730 |
| Determined | <5 | 730 | 3.12% | <1 | 15 | 3.47% | <10 | 780 |
| SA3807 | <5 | <5 | 345 | <1 | <1 | 1.74% | <10 | <10 |
| Std Nominal | 50 | 305 | | 2 | 21 | 1.31% | <10 | <10 |
| Determined | 45 | 330 | 4230 | 3 | 19 | 1.27% | <10 | <10 |
| SA3808 | <5 | <5 | 320 | <1 | <1 | 2.16% | <10 | <10 |
| SA3809 | <5 | 10 | 335 | 1 | <1 | 4700 | <10 | <10 |
| SA3810 | <5 | <5 | 290 | 1 | <1 | 3700 | <10 | <10 |
| SA3811 | <5 | 10 | 350 | 1 | <1 | 4500 | <10 | <10 |
| SA3812 | <5 | <5 | 325 | 1 | <1 | 4900 | <10 | <10 |
| SA3813 | <5 | <5 | 325 | <1 | <1 | 3.93% | <10 | <10 |
| SA3814 | <5 | <5 | 330 | 1 | <1 | 7.29% | <10 | <10 |
| SA3815 | <5 | <5 | 345 | 1 | <1 | 8200 | <10 | <10 |
| SA3816 | <5 | <5 | 345 | 1 | <1 | 6200 | <10 | <10 |
| SA3816 Rpt | <5 | <5 | 335 | <1 | <1 | 6200 | <10 | <10 |
| SA3817 | <5 | <5 | 285 | 1 | <1 | 3600 | <10 | <10 |
| SA3818 | <5 | 15 | 325 | 1 | <1 | 1.29% | <10 | <10 |
| SA3819 | <5 | <5 | 310 | <1 | <1 | 8400 | <10 | <10 |
| SA3820 | <5 | <5 | 335 | <1 | <1 | 4900 | <10 | <10 |
| SA3821 | <5 | <5 | 335 | 1 | <1 | 5100 | <10 | <10 |
| SA3822 | <5 | 10 | 325 | 1 | <1 | 5.54% | <10 | <10 |
| SA3823 | <5 | <5 | 320 | <1 | <1 | 4.90% | <10 | <10 |
| SA3824 | <5 | <5 | 375 | <1 | <1 | 3.75% | <10 | <10 |
| SA3825 | <5 | <5 | 320 | 1 | <1 | 5700 | <10 | <10 |
| SA3826 | <5 | <5 | 335 | 1 | <1 | 5500 | <10 | <10 |
| SA3827 | <5 | <5 | 330 | 1 | <1 | 5200 | <10 | <10 |
| SA3828 | <5 | <5 | 325 | <1 | <1 | 5100 | <10 | <10 |
| SA3829 | <5 | 15 | 320 | 1 | <1 | 4700 | <10 | 10 |
| SA3830 | <5 | <5 | 350 | 1 | <1 | 5300 | <10 | <10 |
| SA3830 Rpt | <5 | <5 | 335 | <1 | <1 | 5000 | <10 | <10 |
| SA3831 | <5 | <5 | 305 | <1 | <1 | 1.55% | <10 | <10 |
| SA3832 | <5 | <5 | 340 | 1 | <1 | 6400 | <10 | <10 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ag | As | Ba | Be | Bi | Ca | Cd | Co |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 5 | 5 | 5 | 1 | 1 | 1000 | 10 | 10 |
| SA3833 | <5 | <5 | 340 | <1 | <1 | 1.42% | <10 | <10 |
| SA3834 | <5 | <5 | 340 | <1 | <1 | 2.66% | <10 | <10 |
| SA3835 | <5 | <5 | 350 | 1 | <1 | 7300 | <10 | <10 |
| SA3836 | <5 | <5 | 335 | 1 | <1 | 8600 | <10 | <10 |
| Std Nominal | <5 | 5 | 430 | 3 | 1 | 5600 | | 10 |
| Determined | <5 | 10 | 410 | 3 | 1 | 5200 | <10 | 10 |
| SA3837 | <5 | <5 | 340 | <1 | <1 | 4700 | <10 | <10 |
| SA3838 | <5 | <5 | 335 | <1 | <1 | 1.60% | <10 | <10 |
| SA3839 | <5 | <5 | 295 | 1 | <1 | 3700 | <10 | <10 |
| SA3840 | <5 | <5 | 320 | 1 | <1 | 3700 | <10 | <10 |
| Std Nominal | <5 | 10 | 710 | 2 | 5 | 2.74% | <10 | 20 |
| Determined | <5 | 15 | 735 | 2 | 5 | 2.72% | <10 | 20 |
| SA3841 | <5 | <5 | 330 | <1 | <1 | 3400 | <10 | <10 |
| SA3842 | <5 | <5 | 325 | <1 | <1 | 1.17% | <10 | <10 |
| SA3843 | <5 | <5 | 310 | 1 | <1 | 4400 | <10 | <10 |
| SA3844 | <5 | <5 | 330 | <1 | <1 | 1.09% | <10 | <10 |
| SA3845 | <5 | <5 | 280 | <1 | <1 | 3200 | <10 | <10 |
| SA3846 | <5 | <5 | 265 | <1 | <1 | 4.86% | <10 | <10 |
| SA3847 | <5 | 10 | 290 | <1 | <1 | 5.41% | <10 | <10 |
| SA3848 | <5 | <5 | 290 | <1 | <1 | 5600 | <10 | <10 |
| BLANK 2 | <5 | <5 | <5 | <1 | <1 | <1000 | <10 | <10 |
| SA3849 | <5 | <5 | 295 | 1 | <1 | 6500 | <10 | <10 |
| SA3850 | <5 | <5 | 305 | 1 | <1 | 4000 | <10 | <10 |
| SA3851 | <5 | <5 | 315 | 1 | <1 | 4000 | <10 | <10 |
| SA3852 | <5 | <5 | 1900 | <1 | <1 | 4800 | <10 | <10 |
| SA3853 | <5 | <5 | 295 | 1 | <1 | 1.85% | <10 | <10 |
| SA3854 | <5 | 10 | 325 | <1 | <1 | 1.22% | <10 | <10 |
| Std Nominal | <5 | 675 | 2.94% | | | | | 730 |
| Determined | <5 | 675 | 3.01% | <1 | 15 | 3.44% | <10 | 750 |
| SA3855 | <5 | <5 | 310 | <1 | <1 | 6200 | <10 | <10 |
| SA3856 | <5 | <5 | 325 | 1 | <1 | 9800 | <10 | <10 |
| SA3915 | <5 | <5 | 525 | <1 | <1 | 5000 | <10 | 10 |
| SA3929 | <5 | <5 | 490 | <1 | <1 | 2900 | <10 | 10 |
| SA3943 | <5 | <5 | 515 | <1 | <1 | 7400 | <10 | 20 |
| SA3957 | <5 | <5 | 425 | <1 | <1 | 4000 | <10 | <10 |
| Std Nominal | 50 | 305 | | 2 | 21 | 1.31% | <10 | <10 |
| Determined | 45 | 320 | 3720 | 3 | 21 | 1.23% | <10 | <10 |
| SA3972 | <5 | <5 | 345 | <1 | <1 | 2600 | <10 | <10 |
| SA3973 | <5 | <5 | 350 | <1 | <1 | 3000 | <10 | <10 |
| SA3974 | <5 | <5 | 335 | <1 | <1 | 2500 | <10 | <10 |
| SA3975 | <5 | <5 | 355 | <1 | <1 | 3000 | <10 | <10 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ag | As | Ba | Be | Bi | Ca | Cd | Co |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 5 | 5 | 5 | 1 | 1 | 1000 | 10 | 10 |
| SA3976 | <5 | <5 | 415 | <1 | <1 | 2400 | <10 | <10 |
| SA3977 | <5 | 10 | 400 | <1 | <1 | 2900 | <10 | <10 |
| SA3978 | <5 | <5 | 405 | <1 | <1 | 3400 | <10 | <10 |
| SA3979 | <5 | <5 | 375 | <1 | <1 | 2600 | <10 | <10 |
| SA3980 | <5 | <5 | 370 | <1 | <1 | 2500 | <10 | <10 |
| SA3980 Rpt | <5 | <5 | 385 | <1 | <1 | 2700 | <10 | <10 |
| SA3981 | <5 | <5 | 390 | <1 | <1 | 3400 | <10 | <10 |
| SA3982 | <5 | <5 | 405 | <1 | <1 | 2800 | <10 | <10 |
| SA3983 | <5 | 10 | 360 | <1 | <1 | 3100 | <10 | <10 |
| SA3984 | <5 | <5 | 385 | <1 | <1 | 2600 | <10 | <10 |
| SA3985 | <5 | <5 | 400 | <1 | <1 | 2600 | <10 | <10 |
| SA3986 | <5 | <5 | 405 | <1 | <1 | 2600 | <10 | <10 |
| SA3987 | <5 | <5 | 415 | 3 | 2 | 2500 | <10 | <10 |
| SA3988 | <5 | <5 | 425 | <1 | <1 | 2900 | <10 | <10 |
| SA3989 | <5 | <5 | 390 | <1 | <1 | 2300 | <10 | <10 |
| SA3990 | <5 | <5 | 420 | <1 | <1 | 2100 | <10 | <10 |
| SA3991 | <5 | <5 | 390 | <1 | <1 | 2000 | <10 | <10 |
| SA3992 | <5 | <5 | 395 | <1 | <1 | 2500 | <10 | <10 |
| SA3993 | <5 | <5 | 395 | <1 | <1 | 2700 | <10 | <10 |
| Std Nominal | <5 | 5 | 430 | 3 | 1 | 5600 | | 10 |
| Determined | <5 | 10 | 400 | 3 | <1 | 5800 | <10 | 10 |
| SA3994 | <5 | 10 | 425 | <1 | <1 | 2200 | <10 | <10 |
| SA3995 | <5 | <5 | 405 | <1 | <1 | 2300 | <10 | <10 |
| SA3996 | <5 | <5 | 410 | <1 | <1 | 2100 | <10 | <10 |
| SA3997 | <5 | <5 | 365 | <1 | <1 | 2500 | <10 | <10 |
| SA3998 | <5 | <5 | 430 | <1 | <1 | 2700 | <10 | <10 |
| SA3999 | <5 | <5 | 415 | <1 | <1 | 2800 | <10 | <10 |
| SA4000 | <5 | <5 | 420 | <1 | <1 | 2500 | <10 | <10 |
| SA4001 | <5 | <5 | 445 | <1 | <1 | 2600 | <10 | <10 |
| SA4002 | <5 | <5 | 470 | <1 | <1 | 2500 | <10 | <10 |
| SA4003 | <5 | <5 | 455 | <1 | <1 | 3200 | <10 | <10 |
| SA4004 | <5 | <5 | 440 | <1 | <1 | 2800 | <10 | <10 |
| Std Nominal | <5 | 10 | 710 | 2 | 5 | 2.74% | <10 | 20 |
| Determined | <5 | 15 | 710 | 2 | 5 | 2.73% | <10 | 20 |
| SA4005 | <5 | <5 | 435 | <1 | <1 | 2800 | <10 | <10 |
| SA4006 | <5 | <5 | 400 | <1 | <1 | 2600 | <10 | <10 |
| SA4006 Rpt | <5 | <5 | 400 | <1 | <1 | 2600 | <10 | <10 |
| SA4007 | <5 | <5 | 580 | <1 | <1 | 3000 | <10 | 10 |



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| Method | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 | PF102 | PF101 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Cr | Cs | Cu | Fe | Ge | Hf | In | K |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 1 | 10 | 100 | 20 | 2 | 0.2 | 1000 |
| BLANK 1 | 20 | <1 | <10 | <100 | <20 | <2 | <0.2 | <1000 |
| SA3800 | 50 | 1 | 30 | 2.19% | <20 | 12 | <0.2 | 1.20% |
| SA3801 | 70 | 1 | 30 | 2.04% | <20 | 12 | <0.2 | 9000 |
| SA3802 | 290 | 2 | 20 | 2.89% | <20 | 10 | <0.2 | 1.30% |
| SA3803 | 50 | 1 | 30 | 2.69% | <20 | 8 | <0.2 | 1.40% |
| SA3804 | 140 | 1 | 40 | 2.27% | <20 | 12 | <0.2 | 1.20% |
| SA3805 | 130 | 1 | 30 | 2.14% | <20 | 12 | <0.2 | 1.10% |
| SA3805 REP | 330 | 1 | 30 | 2.14% | <20 | 12 | <0.2 | 8000 |
| SA3806 | 50 | 1 | 20 | 2.91% | <20 | 16 | <0.2 | 1.40% |
| Std Nominal | 30 | <1 | 2.53% | | | 2 | 0.6 | 2.50% |
| Determined | 30 | <1 | 2.79% | 30.3% | <20 | <2 | 0.4 | 2.60% |
| SA3807 | 340 | 1 | 20 | 2.53% | <20 | 16 | <0.2 | 1.40% |
| Std Nominal | 40 | 7 | 1010 | 2.48% | <20 | 4 | 1.8 | 2.10% |
| Determined | 50 | 6 | 950 | 2.49% | <20 | 4 | 1.4 | 2.30% |
| SA3808 | 40 | 1 | 20 | 2.70% | <20 | 12 | <0.2 | 1.30% |
| SA3809 | 50 | 1 | 20 | 3.20% | <20 | 10 | <0.2 | 1.50% |
| SA3810 | 310 | 2 | 30 | 3.06% | <20 | 16 | <0.2 | 1.30% |
| SA3811 | 50 | 1 | 50 | 2.72% | <20 | 14 | <0.2 | 1.30% |
| SA3812 | 120 | 1 | 20 | 2.24% | <20 | 12 | <0.2 | 1.30% |
| SA3813 | 40 | 1 | 20 | 2.13% | <20 | 12 | <0.2 | 1.30% |
| SA3814 | 100 | 1 | 30 | 2.14% | <20 | 12 | <0.2 | 1.20% |
| SA3815 | 50 | 1 | 20 | 2.44% | <20 | 16 | <0.2 | 1.50% |
| SA3816 | 150 | 1 | 20 | 2.23% | <20 | 10 | <0.2 | 1.30% |
| SA3816 Rpt | 140 | 1 | 20 | 2.21% | <20 | 10 | <0.2 | 1.40% |
| SA3817 | 50 | 2 | 30 | 2.71% | <20 | 16 | <0.2 | 1.40% |
| SA3818 | 40 | 1 | 20 | 2.21% | <20 | 12 | <0.2 | 1.40% |
| SA3819 | 120 | 1 | 20 | 2.51% | <20 | 16 | <0.2 | 1.30% |
| SA3820 | 40 | 1 | 20 | 2.22% | <20 | 10 | <0.2 | 1.40% |
| SA3821 | 150 | 1 | 20 | 2.33% | <20 | 14 | <0.2 | 1.40% |
| SA3822 | 40 | 1 | 20 | 2.50% | <20 | 12 | <0.2 | 1.20% |
| SA3823 | 150 | 1 | 30 | 2.62% | <20 | 10 | <0.2 | 1.30% |
| SA3824 | 50 | 1 | 20 | 2.51% | <20 | 12 | <0.2 | 1.30% |
| SA3825 | 210 | 2 | 20 | 3.22% | <20 | 14 | <0.2 | 1.30% |
| SA3826 | 50 | 2 | 20 | 2.98% | <20 | 14 | <0.2 | 1.40% |
| SA3827 | 140 | 2 | 30 | 2.59% | <20 | 12 | <0.2 | 1.40% |
| SA3828 | 50 | 1 | 30 | 2.41% | <20 | 16 | <0.2 | 1.20% |
| SA3829 | 600 | 2 | 20 | 2.73% | <20 | 14 | <0.2 | 1.30% |
| SA3830 | 60 | 1 | 20 | 3.29% | <20 | 14 | <0.2 | 1.40% |
| SA3830 Rpt | 60 | 1 | 20 | 3.07% | <20 | 12 | <0.2 | 1.40% |
| SA3831 | 160 | 1 | 20 | 2.18% | <20 | 16 | <0.2 | 1.10% |
| SA3832 | 50 | 1 | 20 | 2.79% | <20 | 10 | <0.2 | 1.30% |



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| Method | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 | PF102 | PF101 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Cr | Cs | Cu | Fe | Ge | Hf | In | K |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 1 | 10 | 100 | 20 | 2 | 0.2 | 1000 |
| SA3833 | 50 | 1 | 20 | 2.41% | <20 | 10 | <0.2 | 1.40% |
| SA3834 | 290 | 1 | 20 | 2.50% | <20 | 10 | <0.2 | 1.20% |
| SA3835 | 60 | 1 | 20 | 2.85% | <20 | 16 | <0.2 | 1.40% |
| SA3836 | 230 | 1 | 20 | 2.52% | <20 | 14 | <0.2 | 1.30% |
| Std Nominal | 100 | 6 | 260 | 4.34% | | 4 | | 2.90% |
| Determined | 90 | 6 | 240 | 4.21% | <20 | 4 | <0.2 | 2.80% |
| SA3837 | 60 | 1 | 20 | 2.94% | <20 | 16 | <0.2 | 1.30% |
| SA3838 | 300 | 1 | 30 | 2.52% | <20 | 16 | <0.2 | 1.30% |
| SA3839 | 50 | 2 | 20 | 2.79% | <20 | 16 | <0.2 | 1.20% |
| SA3840 | 260 | 2 | 20 | 3.18% | <20 | 12 | <0.2 | 1.30% |
| Std Nominal | 70 | 5 | 1.11% | 7.33% | | <2 | 0.8 | 2.90% |
| Determined | 90 | 4 | 1.16% | 7.61% | <20 | 2 | 0.4 | 2.80% |
| SA3841 | 50 | 1 | 10 | 2.76% | <20 | 18 | <0.2 | 1.30% |
| SA3842 | 320 | 1 | 20 | 2.97% | <20 | 12 | <0.2 | 1.10% |
| SA3843 | 60 | 2 | 30 | 3.12% | <20 | 12 | <0.2 | 1.30% |
| SA3844 | 250 | 1 | 30 | 2.50% | <20 | 12 | <0.2 | 1.10% |
| SA3845 | 50 | <1 | 20 | 2.99% | <20 | 12 | <0.2 | 9000 |
| SA3846 | 240 | 1 | 40 | 2.16% | <20 | 14 | <0.2 | 1.10% |
| SA3847 | 50 | 1 | 30 | 2.19% | <20 | 12 | <0.2 | 1.10% |
| SA3848 | 290 | 2 | 30 | 2.33% | <20 | 18 | <0.2 | 1.10% |
| BLANK 2 | <10 | <1 | <10 | <100 | <20 | <2 | <0.2 | <1000 |
| SA3849 | 50 | 2 | 30 | 3.15% | <20 | 18 | <0.2 | 9000 |
| SA3850 | 300 | 2 | 30 | 2.74% | <20 | 18 | <0.2 | 1.20% |
| SA3851 | 60 | 2 | 20 | 2.88% | <20 | 16 | <0.2 | 1.30% |
| SA3852 | 220 | 1 | 30 | 2.82% | <20 | 16 | <0.2 | 1.20% |
| SA3853 | 60 | 2 | 30 | 2.93% | <20 | 14 | <0.2 | 1.20% |
| SA3854 | 330 | 1 | 20 | 2.62% | <20 | 16 | <0.2 | 1.30% |
| Std Nominal | 30 | <1 | 2.53% | | | 2 | 0.6 | 2.50% |
| Determined | 30 | <1 | 2.74% | 29.7% | <20 | 2 | 0.4 | 2.50% |
| SA3855 | 30 | 2 | 10 | 2.49% | <20 | 16 | <0.2 | 1.00% |
| SA3856 | 280 | 1 | 30 | 2.56% | <20 | 16 | <0.2 | 9000 |
| SA3915 | 60 | 2 | 30 | 5.02% | <20 | 14 | <0.2 | 1.50% |
| SA3929 | 270 | 1 | 30 | 4.81% | <20 | 12 | <0.2 | 1.80% |
| SA3943 | 90 | 1 | 30 | 6.54% | <20 | 18 | <0.2 | 1.40% |
| SA3957 | 310 | 1 | 10 | 3.58% | <20 | 16 | <0.2 | 1.20% |
| Std Nominal | 40 | 7 | 1010 | 2.48% | <20 | 4 | 1.8 | 2.10% |
| Determined | 50 | 6 | 910 | 2.32% | <20 | 6 | 1.4 | 2.00% |
| SA3972 | 40 | 1 | 20 | 2.41% | <20 | 8 | <0.2 | 1.30% |
| SA3973 | 280 | 1 | 20 | 2.15% | <20 | 10 | <0.2 | 1.30% |
| SA3974 | 40 | <1 | 20 | 2.14% | <20 | 8 | <0.2 | 1.10% |
| SA3975 | 320 | <1 | 20 | 2.14% | <20 | 10 | <0.2 | 1.20% |



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| Method | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 | PF102 | PF101 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Cr | Cs | Cu | Fe | Ge | Hf | In | K |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 1 | 10 | 100 | 20 | 2 | 0.2 | 1000 |
| SA3976 | 30 | <1 | 20 | 1.51% | <20 | 2 | <0.2 | 1.40% |
| SA3977 | 300 | <1 | 20 | 1.83% | <20 | 8 | <0.2 | 1.30% |
| SA3978 | 40 | <1 | 20 | 2.09% | <20 | 8 | <0.2 | 1.40% |
| SA3979 | 280 | <1 | 20 | 2.10% | <20 | 10 | <0.2 | 1.30% |
| SA3980 | 40 | <1 | 20 | 2.24% | <20 | 10 | <0.2 | 1.30% |
| SA3980 Rpt | 50 | <1 | 20 | 2.35% | <20 | 10 | <0.2 | 1.30% |
| SA3981 | 280 | <1 | 20 | 2.13% | <20 | 10 | <0.2 | 1.40% |
| SA3982 | 50 | <1 | 20 | 2.15% | <20 | 10 | <0.2 | 1.30% |
| SA3983 | 330 | <1 | 20 | 2.73% | <20 | 16 | <0.2 | 1.30% |
| SA3984 | 50 | <1 | 20 | 2.85% | <20 | 10 | <0.2 | 1.40% |
| SA3985 | 310 | <1 | 20 | 2.11% | <20 | 10 | <0.2 | 1.30% |
| SA3986 | 50 | <1 | 20 | 2.31% | <20 | 8 | <0.2 | 1.40% |
| SA3987 | 290 | 2 | 10 | 1.91% | <20 | 8 | <0.2 | 1.20% |
| SA3988 | 20 | <1 | 10 | 2.29% | <20 | 8 | <0.2 | 1.10% |
| SA3989 | 280 | <1 | 20 | 2.26% | <20 | 10 | <0.2 | 1.40% |
| SA3990 | 40 | <1 | 10 | 2.36% | <20 | 8 | <0.2 | 1.50% |
| SA3991 | 270 | <1 | 20 | 1.97% | <20 | 10 | <0.2 | 1.40% |
| SA3992 | 40 | <1 | 20 | 2.43% | <20 | 10 | <0.2 | 1.30% |
| SA3993 | 280 | 1 | 20 | 2.53% | <20 | 10 | <0.2 | 1.40% |
| Std Nominal | 100 | 6 | 260 | 4.34% | | 4 | | 2.90% |
| Determined | 90 | 6 | 240 | 4.21% | <20 | 4 | <0.2 | 2.90% |
| SA3994 | 50 | <1 | 10 | 3.10% | <20 | 8 | <0.2 | 1.60% |
| SA3995 | 410 | <1 | 20 | 2.95% | <20 | 8 | <0.2 | 1.60% |
| SA3996 | 50 | <1 | 20 | 2.69% | <20 | 8 | <0.2 | 1.40% |
| SA3997 | 350 | <1 | 10 | 2.57% | <20 | 14 | <0.2 | 1.40% |
| SA3998 | 70 | 1 | 20 | 4.90% | <20 | 18 | <0.2 | 1.70% |
| SA3999 | 340 | 1 | 20 | 3.01% | <20 | 12 | <0.2 | 1.50% |
| SA4000 | 300 | <1 | 20 | 2.50% | <20 | 10 | <0.2 | 1.60% |
| SA4001 | 50 | <1 | 20 | 2.87% | <20 | 10 | <0.2 | 1.70% |
| SA4002 | 340 | <1 | 20 | 2.79% | <20 | 8 | <0.2 | 1.70% |
| SA4003 | 50 | <1 | 20 | 2.70% | <20 | 8 | <0.2 | 1.50% |
| SA4004 | 290 | <1 | 20 | 2.74% | <20 | 10 | <0.2 | 1.70% |
| Std Nominal | 70 | 5 | 1.11% | 7.33% | | <2 | 0.8 | 2.90% |
| Determined | 100 | 5 | 1.19% | 7.50% | <20 | 2 | 0.6 | 2.80% |
| SA4005 | 100 | 1 | 40 | 4.32% | <20 | 14 | <0.2 | 2.10% |
| SA4006 | 280 | <1 | 30 | 4.56% | <20 | 20 | <0.2 | 1.80% |
| SA4006 Rpt | 280 | 1 | 30 | 4.49% | <20 | 20 | <0.2 | 1.60% |
| SA4007 | 90 | <1 | 20 | 8.40% | <20 | 14 | <0.2 | 2.50% |



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| Method | PF101 | PF101 | PF101 | PF102 | PF102 | PF102 | PF101 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Li | Mg | Mn | Mo | Nb | Ni | P | Pb |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 100 | 10 | 5 | 5 | 20 | 100 | 10 |
| BLANK 1 | 10 | <100 | <10 | <5 | <5 | <20 | <100 | <10 |
| SA3800 | 20 | 4700 | 280 | <5 | 10 | <20 | <100 | <10 |
| SA3801 | 10 | 8700 | 230 | <5 | 10 | 20 | <100 | <10 |
| SA3802 | 20 | 4600 | 350 | <5 | 10 | 20 | <100 | 10 |
| SA3803 | 20 | 4900 | 350 | <5 | 10 | 20 | <100 | <10 |
| SA3804 | <10 | 7000 | 270 | <5 | 10 | 20 | <100 | <10 |
| SA3805 | <10 | 5400 | 250 | <5 | 10 | 20 | <100 | <10 |
| SA3805 REP | <10 | 5000 | 270 | <5 | 5 | 20 | <100 | <10 |
| SA3806 | 10 | 3200 | 350 | <5 | 10 | 20 | <100 | 10 |
| Std Nominal | | | | 390 | 5 | 80 | 1000 | 40 |
| Determined | 20 | 1.04% | 4920 | 375 | 5 | 80 | 800 | 40 |
| SA3807 | 20 | 3800 | 310 | <5 | 10 | 20 | 200 | 10 |
| Std Nominal | 20 | 3900 | 480 | <5 | 15 | 20 | 500 | 330 |
| Determined | 10 | 4100 | 490 | <5 | 15 | 40 | 300 | 310 |
| SA3808 | 10 | 3900 | 370 | <5 | 10 | <20 | <100 | <10 |
| SA3809 | 10 | 3300 | 430 | <5 | 5 | 20 | <100 | 10 |
| SA3810 | 10 | 2800 | 330 | <5 | 10 | 20 | <100 | 10 |
| SA3811 | <10 | 3400 | 330 | <5 | 10 | 20 | 200 | 10 |
| SA3812 | <10 | 2800 | 260 | <5 | 5 | 20 | <100 | <10 |
| SA3813 | 20 | 4100 | 260 | <5 | 5 | 20 | <100 | <10 |
| SA3814 | 10 | 5600 | 260 | <5 | 10 | 20 | <100 | <10 |
| SA3815 | 10 | 4000 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3816 | <10 | 4000 | 300 | <5 | 5 | 20 | <100 | 10 |
| SA3816 Rpt | 10 | 3800 | 300 | <5 | 5 | 20 | <100 | 10 |
| SA3817 | 10 | 3100 | 320 | <5 | 10 | 20 | <100 | 10 |
| SA3818 | <10 | 3900 | 280 | <5 | 10 | 20 | <100 | 10 |
| SA3819 | <10 | 3900 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3820 | <10 | 3600 | 270 | <5 | 5 | 20 | <100 | <10 |
| SA3821 | 10 | 3600 | 280 | <5 | 10 | 20 | <100 | <10 |
| SA3822 | 10 | 4000 | 300 | <5 | 10 | 20 | <100 | <10 |
| SA3823 | 20 | 7200 | 280 | <5 | 5 | 20 | <100 | <10 |
| SA3824 | 10 | 4700 | 310 | <5 | 10 | 20 | <100 | <10 |
| SA3825 | 10 | 3600 | 330 | <5 | 10 | 20 | <100 | 10 |
| SA3826 | 10 | 3400 | 350 | <5 | 10 | 20 | <100 | 10 |
| SA3827 | 10 | 4200 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3828 | 10 | 3400 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3829 | <10 | 3700 | 310 | 10 | 15 | 40 | <100 | 10 |
| SA3830 | 10 | 3800 | 400 | <5 | 10 | 20 | <100 | 10 |
| SA3830 Rpt | 10 | 3800 | 380 | <5 | 10 | 20 | 200 | 10 |
| SA3831 | <10 | 3200 | 260 | <5 | 10 | 20 | <100 | <10 |
| SA3832 | 10 | 4500 | 340 | <5 | 5 | 20 | <100 | 10 |



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| Method | PF101 | PF101 | PF101 | PF102 | PF102 | PF102 | PF101 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Li | Mg | Mn | Mo | Nb | Ni | P | Pb |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 100 | 10 | 5 | 5 | 20 | 100 | 10 |
| SA3833 | 20 | 4000 | 320 | <5 | 5 | <20 | <100 | <10 |
| SA3834 | 10 | 4600 | 300 | <5 | 5 | 20 | 200 | <10 |
| SA3835 | 10 | 4000 | 350 | <5 | 10 | 20 | <100 | 10 |
| SA3836 | 20 | 3800 | 310 | <5 | 10 | 20 | <100 | 10 |
| Std Nominal | 30 | 1.57% | 700 | | 15 | 40 | 700 | <10 |
| Determined | <10 | 1.48% | 660 | <5 | 15 | 40 | 500 | <10 |
| SA3837 | 20 | 3900 | 340 | <5 | 10 | 20 | <100 | 10 |
| SA3838 | 10 | 4500 | 300 | <5 | 10 | 20 | 200 | 10 |
| SA3839 | 20 | 3600 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3840 | 20 | 3100 | 370 | <5 | 10 | 20 | 200 | 10 |
| Std Nominal | 20 | 1.66% | 540 | 500 | 10 | 40 | 1000 | 30 |
| Determined | 10 | 1.70% | 570 | 480 | 10 | 40 | 800 | 20 |
| SA3841 | 10 | 2900 | 340 | <5 | 10 | 20 | 200 | 10 |
| SA3842 | 10 | 4300 | 460 | <5 | 10 | 20 | 200 | 10 |
| SA3843 | 10 | 4700 | 360 | <5 | 10 | 20 | <100 | 10 |
| SA3844 | 10 | 4100 | 310 | <5 | 10 | 20 | <100 | 10 |
| SA3845 | <10 | 3500 | 370 | <5 | 5 | <20 | <100 | <10 |
| SA3846 | <10 | 4300 | 280 | <5 | 10 | 20 | <100 | <10 |
| SA3847 | <10 | 9500 | 280 | <5 | 10 | 20 | <100 | <10 |
| SA3848 | 10 | 2800 | 270 | <5 | 10 | 20 | <100 | 10 |
| BLANK 2 | <10 | <100 | <10 | <5 | <5 | <20 | <100 | <10 |
| SA3849 | 30 | 3400 | 320 | <5 | 10 | 20 | 200 | 10 |
| SA3850 | 20 | 2900 | 340 | <5 | 10 | 20 | 200 | 10 |
| SA3851 | 10 | 3000 | 280 | <5 | 10 | 20 | 200 | 10 |
| SA3852 | 10 | 3200 | 310 | <5 | 10 | 20 | 300 | 10 |
| SA3853 | 10 | 9300 | 350 | <5 | 10 | 20 | 200 | 10 |
| SA3854 | 10 | 4400 | 320 | <5 | 10 | 20 | <100 | 10 |
| Std Nominal | | | | 390 | 5 | 80 | 1000 | 40 |
| Determined | 20 | 1.06% | 4920 | 395 | 5 | 60 | 1000 | 50 |
| SA3855 | <10 | 3700 | 360 | <5 | 10 | 20 | 200 | 10 |
| SA3856 | <10 | 4900 | 330 | <5 | 10 | 20 | <100 | 10 |
| SA3915 | <10 | 7300 | 780 | <5 | 10 | 40 | 300 | 10 |
| SA3929 | <10 | 6300 | 760 | <5 | 10 | 40 | 200 | 10 |
| SA3943 | <10 | 1.08% | 1050 | <5 | 15 | 40 | 700 | 10 |
| SA3957 | <10 | 4400 | 650 | <5 | 10 | 40 | 400 | 10 |
| Std Nominal | 20 | 3900 | 480 | <5 | 15 | 20 | 500 | 330 |
| Determined | 10 | 3600 | 460 | <5 | 15 | 40 | 400 | 350 |
| SA3972 | <10 | 2000 | 360 | <5 | 5 | <20 | <100 | 10 |
| SA3973 | 30 | 2100 | 350 | <5 | 5 | 20 | 200 | 10 |
| SA3974 | 10 | 1800 | 340 | <5 | 5 | <20 | <100 | 10 |
| SA3975 | <10 | 2000 | 350 | <5 | 5 | 20 | <100 | 10 |



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| Method | PF101 | PF101 | PF101 | PF102 | PF102 | PF102 | PF101 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Li | Mg | Mn | Mo | Nb | Ni | P | Pb |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 100 | 10 | 5 | 5 | 20 | 100 | 10 |
| SA3976 | <10 | 1500 | 260 | <5 | <5 | <20 | <100 | <10 |
| SA3977 | <10 | 1700 | 270 | <5 | 5 | 20 | 200 | 10 |
| SA3978 | <10 | 2000 | 320 | <5 | 5 | 20 | <100 | 10 |
| SA3979 | <10 | 1900 | 300 | <5 | 5 | 20 | 200 | 10 |
| SA3980 | 10 | 1700 | 290 | <5 | 5 | 20 | <100 | 10 |
| SA3980 Rpt | <10 | 1800 | 300 | <5 | 5 | <20 | <100 | 10 |
| SA3981 | 10 | 1800 | 290 | <5 | 5 | 20 | <100 | 10 |
| SA3982 | <10 | 1900 | 310 | <5 | 5 | 20 | <100 | 10 |
| SA3983 | <10 | 3700 | 420 | <5 | 10 | 20 | 200 | 10 |
| SA3984 | <10 | 2500 | 390 | <5 | 5 | 20 | <100 | <10 |
| SA3985 | <10 | 2200 | 320 | <5 | 5 | 20 | <100 | 10 |
| SA3986 | <10 | 1700 | 320 | <5 | 5 | <20 | <100 | 10 |
| SA3987 | <10 | 1800 | 320 | <5 | 10 | 20 | <100 | 10 |
| SA3988 | <10 | 2000 | 360 | <5 | 5 | <20 | <100 | 10 |
| SA3989 | <10 | 1900 | 310 | <5 | 5 | 20 | <100 | 10 |
| SA3990 | 10 | 2000 | 310 | <5 | 5 | <20 | <100 | 10 |
| SA3991 | <10 | 1600 | 260 | <5 | 5 | 20 | 200 | 10 |
| SA3992 | <10 | 2000 | 340 | <5 | 5 | <20 | <100 | 10 |
| SA3993 | 10 | 2400 | 460 | <5 | 5 | 20 | <100 | 10 |
| Std Nominal | 30 | 1.57% | 700 | | 15 | 40 | 700 | <10 |
| Determined | 20 | 1.50% | 660 | <5 | 15 | 40 | 600 | <10 |
| SA3994 | <10 | 3600 | 530 | <5 | 5 | <20 | <100 | 10 |
| SA3995 | 10 | 3100 | 520 | <5 | 5 | 20 | <100 | 10 |
| SA3996 | <10 | 2300 | 420 | <5 | 5 | <20 | <100 | 10 |
| SA3997 | <10 | 2700 | 380 | <5 | 10 | 20 | <100 | 10 |
| SA3998 | 10 | 7100 | 1240 | <5 | 10 | 20 | 300 | 10 |
| SA3999 | 20 | 3300 | 520 | <5 | 5 | 20 | <100 | 10 |
| SA4000 | 10 | 2600 | 380 | <5 | 5 | 20 | <100 | 10 |
| SA4001 | 10 | 3100 | 370 | <5 | 5 | 20 | <100 | 10 |
| SA4002 | 10 | 2900 | 400 | <5 | 5 | 20 | <100 | 10 |
| SA4003 | 10 | 3100 | 370 | <5 | 5 | 20 | 200 | 10 |
| SA4004 | <10 | 3000 | 360 | <5 | 10 | 20 | <100 | 10 |
| Std Nominal | 20 | 1.66% | 540 | 500 | 10 | 40 | 1000 | 30 |
| Determined | 20 | 1.70% | 590 | 495 | 10 | 40 | 900 | 20 |
| SA4005 | <10 | 7100 | 570 | <5 | 10 | 40 | 200 | 10 |
| SA4006 | 10 | 6100 | 650 | <5 | 15 | 20 | 200 | 10 |
| SA4006 Rpt | 10 | 6000 | 630 | <5 | 15 | 20 | <100 | 10 |
| SA4007 | 20 | 9600 | 1500 | <5 | 10 | 40 | 300 | 20 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF101 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|--------|-------|-------|
| Result Name | Rb | Re | S | Sb | Sc | Si | Sn | Sr |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 1 | 100 | 10 | 10 | 100 | 10 | 1 |
| BLANK 1 | <0.5 | <1 | <100 | <10 | <10 | <100 | <10 | <1 |
| SA3800 | 50.0 | <1 | 700 | <10 | <10 | 29.8% | <10 | 67 |
| SA3801 | 36.5 | <1 | 800 | <10 | <10 | 28.6% | <10 | 78 |
| SA3802 | 66.0 | <1 | <100 | <10 | <10 | 34.4% | <10 | 75 |
| SA3803 | 64.5 | <1 | <100 | <10 | <10 | 37.4% | <10 | 65 |
| SA3804 | 51.0 | <1 | <100 | <10 | <10 | 27.1% | <10 | 103 |
| SA3805 | 56.0 | <1 | 400 | <10 | <10 | 30.4% | <10 | 83 |
| SA3805 REP | 59.5 | <1 | 700 | <10 | <10 | 29.5% | <10 | 86 |
| SA3806 | 64.5 | <1 | 700 | <10 | <10 | 39.0% | <10 | 68 |
| Std Nominal | 67.0 | | 5.58% | | <10 | | 10 | 287 |
| Determined | 69.5 | <1 | 5.52% | 10 | <10 | 12.8% | 10 | 297 |
| SA3807 | 65.0 | <1 | <100 | <10 | <10 | 35.0% | <10 | 72 |
| Std Nominal | 97.0 | <1 | 1.07% | 30 | <10 | 32.4 % | <10 | 230 |
| Determined | 104 | <1 | 1.10% | 30 | <10 | 33.2% | <10 | 220 |
| SA3808 | 53.0 | <1 | 400 | <10 | <10 | 35.2% | <10 | 65 |
| SA3809 | 66.5 | <1 | <100 | <10 | <10 | 31.7% | <10 | 59 |
| SA3810 | 61.0 | <1 | <100 | <10 | <10 | 35.9% | <10 | 61 |
| SA3811 | 60.5 | <1 | 300 | <10 | <10 | 37.8% | <10 | 60 |
| SA3812 | 54.5 | <1 | <100 | <10 | <10 | 38.7% | <10 | 57 |
| SA3813 | 53.5 | <1 | <100 | <10 | <10 | 34.3% | <10 | 72 |
| SA3814 | 54.0 | <1 | <100 | <10 | <10 | 30.9% | <10 | 82 |
| SA3815 | 60.0 | <1 | <100 | <10 | <10 | 36.5% | <10 | 66 |
| SA3816 | 60.5 | <1 | <100 | <10 | <10 | 39.0% | <10 | 61 |
| SA3816 Rpt | 60.5 | <1 | 400 | <10 | <10 | 39.8% | <10 | 61 |
| SA3817 | 70.5 | <1 | 200 | <10 | <10 | 34.6% | <10 | 72 |
| SA3818 | 63.0 | <1 | <100 | <10 | <10 | 35.9% | <10 | 68 |
| SA3819 | 60.0 | <1 | <100 | <10 | <10 | 36.2% | <10 | 60 |
| SA3820 | 57.0 | <1 | <100 | <10 | <10 | 38.5% | <10 | 58 |
| SA3821 | 58.0 | <1 | <100 | <10 | <10 | 37.0% | <10 | 60 |
| SA3822 | 50.5 | <1 | <100 | <10 | <10 | 34.6% | <10 | 71 |
| SA3823 | 54.5 | <1 | <100 | <10 | <10 | 35.5% | <10 | 83 |
| SA3824 | 56.0 | <1 | 200 | <10 | <10 | 37.7% | <10 | 74 |
| SA3825 | 64.5 | <1 | <100 | <10 | <10 | 40.3% | <10 | 65 |
| SA3826 | 64.5 | <1 | <100 | <10 | <10 | 40.3% | <10 | 66 |
| SA3827 | 68.0 | <1 | <100 | <10 | <10 | 39.2% | <10 | 66 |
| SA3828 | 64.0 | <1 | <100 | <10 | <10 | 39.7% | <10 | 65 |
| SA3829 | 63.0 | 2 | <100 | <10 | <10 | 36.8% | <10 | 62 |
| SA3830 | 63.0 | <1 | <100 | <10 | <10 | 40.5% | <10 | 66 |
| SA3830 Rpt | 59.5 | <1 | <100 | <10 | <10 | 39.6% | <10 | 61 |
| SA3831 | 54.0 | <1 | <100 | <10 | <10 | 38.4% | <10 | 62 |
| SA3832 | 58.5 | <1 | <100 | <10 | <10 | 40.3% | <10 | 62 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF101 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|--------|-------|-------|
| Result Name | Rb | Re | S | Sb | Sc | Si | Sn | Sr |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 1 | 100 | 10 | 10 | 100 | 10 | 1 |
| SA3833 | 54.5 | <1 | <100 | <10 | <10 | 37.5% | <10 | 61 |
| SA3834 | 54.5 | <1 | <100 | <10 | <10 | 39.7% | <10 | 70 |
| SA3835 | 58.5 | <1 | <100 | <10 | <10 | 40.4% | <10 | 61 |
| SA3836 | 63.0 | <1 | 100 | <10 | <10 | 39.8% | <10 | 67 |
| Std Nominal | 198 | | 800 | <10 | 10 | 31.6 % | <10 | 35 |
| Determined | 196 | <1 | 400 | <10 | 10 | 31.9% | <10 | 33 |
| SA3837 | 62.5 | <1 | <100 | <10 | <10 | 39.6% | <10 | 61 |
| SA3838 | 62.5 | <1 | 500 | <10 | <10 | 34.8% | <10 | 71 |
| SA3839 | 69.5 | <1 | <100 | <10 | <10 | 34.0% | <10 | 72 |
| SA3840 | 71.0 | <1 | 100 | <10 | <10 | 37.1% | <10 | 73 |
| Std Nominal | 106 | <1 | 1.31% | <10 | | | 10 | 423 |
| Determined | 100 | <1 | 1.28% | <10 | 10 | 28.5% | 10 | 414 |
| SA3841 | 58.5 | <1 | 200 | <10 | <10 | 39.1% | <10 | 58 |
| SA3842 | 54.5 | <1 | <100 | <10 | <10 | 38.1% | <10 | 63 |
| SA3843 | 74.0 | <1 | 200 | <10 | <10 | 33.4% | <10 | 74 |
| SA3844 | 58.0 | <1 | <100 | <10 | <10 | 34.0% | <10 | 66 |
| SA3845 | 53.5 | <1 | <100 | <10 | <10 | 36.3% | <10 | 48 |
| SA3846 | 56.5 | <1 | <100 | <10 | <10 | 28.4% | <10 | 84 |
| SA3847 | 58.5 | <1 | <100 | <10 | <10 | 27.5% | <10 | 142 |
| SA3848 | 64.5 | <1 | <100 | <10 | <10 | 31.0% | <10 | 68 |
| BLANK 2 | <0.5 | <1 | <100 | <10 | <10 | 100 | <10 | <1 |
| SA3849 | 66.0 | <1 | <100 | <10 | 10 | 32.3% | <10 | 73 |
| SA3850 | 68.0 | <1 | 200 | <10 | <10 | 36.6% | <10 | 66 |
| SA3851 | 61.0 | <1 | <100 | <10 | <10 | 36.3% | <10 | 61 |
| SA3852 | 61.0 | <1 | 300 | <10 | <10 | 37.3% | <10 | 58 |
| SA3853 | 61.5 | <1 | 200 | <10 | <10 | 32.9% | <10 | 77 |
| SA3854 | 62.5 | <1 | <100 | <10 | <10 | 37.4% | <10 | 70 |
| Std Nominal | 67.0 | | 5.58% | | <10 | | 10 | 287 |
| Determined | 66.0 | <1 | 5.90% | 10 | <10 | 12.9% | 10 | 280 |
| SA3855 | 68.0 | <1 | <100 | <10 | <10 | 34.4% | <10 | 72 |
| SA3856 | 60.0 | <1 | 400 | <10 | <10 | 33.8% | <10 | 72 |
| SA3915 | 89.5 | <1 | 300 | <10 | <10 | 31.6% | <10 | 84 |
| SA3929 | 92.0 | <1 | 300 | <10 | <10 | 32.0% | <10 | 73 |
| SA3943 | 85.0 | <1 | 600 | <10 | 10 | 29.0% | <10 | 96 |
| SA3957 | 68.5 | <1 | <100 | <10 | <10 | 33.8% | <10 | 63 |
| Std Nominal | 97.0 | <1 | 1.07% | 30 | <10 | 32.4 % | <10 | 230 |
| Determined | 101 | <1 | 1.01% | 30 | <10 | 31.5% | <10 | 215 |
| SA3972 | 53.0 | <1 | <100 | <10 | <10 | 35.0% | <10 | 60 |
| SA3973 | 54.5 | <1 | <100 | <10 | <10 | 36.3% | <10 | 63 |
| SA3974 | 53.5 | <1 | <100 | <10 | <10 | 34.7% | <10 | 59 |
| SA3975 | 53.0 | <1 | 200 | <10 | <10 | 35.9% | <10 | 59 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF101 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|--------|-------|-------|
| Result Name | Rb | Re | S | Sb | Sc | Si | Sn | Sr |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 1 | 100 | 10 | 10 | 100 | 10 | 1 |
| SA3976 | 48.5 | <1 | <100 | <10 | <10 | 42.1% | <10 | 56 |
| SA3977 | 54.0 | <1 | <100 | <10 | <10 | 39.0% | <10 | 62 |
| SA3978 | 56.0 | <1 | <100 | <10 | <10 | 41.5% | <10 | 63 |
| SA3979 | 54.5 | <1 | <100 | <10 | <10 | 36.0% | <10 | 61 |
| SA3980 | 54.5 | <1 | <100 | <10 | <10 | 39.1% | <10 | 61 |
| SA3980 Rpt | 57.0 | <1 | 500 | <10 | <10 | 39.0% | <10 | 63 |
| SA3981 | 52.5 | <1 | <100 | <10 | <10 | 40.2% | <10 | 66 |
| SA3982 | 54.0 | <1 | <100 | <10 | <10 | 43.1% | <10 | 61 |
| SA3983 | 58.5 | <1 | <100 | <10 | 10 | 37.7% | <10 | 59 |
| SA3984 | 53.5 | <1 | <100 | <10 | <10 | 41.5% | <10 | 54 |
| SA3985 | 50.5 | <1 | <100 | <10 | <10 | 40.2% | <10 | 57 |
| SA3986 | 53.0 | <1 | <100 | <10 | <10 | 42.2% | <10 | 59 |
| SA3987 | 57.0 | 3 | 200 | <10 | <10 | 34.2% | <10 | 62 |
| SA3988 | 54.0 | <1 | <100 | <10 | <10 | 36.8% | <10 | 60 |
| SA3989 | 56.0 | <1 | <100 | <10 | <10 | 41.4% | <10 | 56 |
| SA3990 | 57.0 | <1 | <100 | <10 | <10 | 39.6% | <10 | 57 |
| SA3991 | 58.5 | <1 | 300 | <10 | <10 | 39.2% | <10 | 59 |
| SA3992 | 60.0 | <1 | <100 | <10 | <10 | 38.5% | <10 | 59 |
| SA3993 | 60.0 | <1 | <100 | <10 | <10 | 39.1% | <10 | 61 |
| Std Nominal | 198 | | 800 | <10 | 10 | 31.6 % | <10 | 35 |
| Determined | 188 | <1 | 600 | <10 | 10 | 31.8% | <10 | 36 |
| SA3994 | 64.0 | <1 | <100 | <10 | <10 | 39.5% | <10 | 54 |
| SA3995 | 60.5 | <1 | 600 | <10 | <10 | 37.6% | <10 | 53 |
| SA3996 | 60.5 | <1 | <100 | <10 | <10 | 37.2% | <10 | 56 |
| SA3997 | 58.0 | <1 | <100 | <10 | <10 | 40.0% | <10 | 50 |
| SA3998 | 83.0 | <1 | <100 | <10 | 10 | 34.3% | <10 | 52 |
| SA3999 | 63.0 | <1 | <100 | <10 | <10 | 38.2% | <10 | 58 |
| SA4000 | 63.0 | <1 | <100 | <10 | <10 | 35.5% | <10 | 61 |
| SA4001 | 61.5 | <1 | 200 | <10 | <10 | 40.5% | <10 | 58 |
| SA4002 | 62.5 | <1 | <100 | <10 | <10 | 41.0% | <10 | 58 |
| SA4003 | 64.0 | <1 | <100 | <10 | <10 | 42.1% | <10 | 61 |
| SA4004 | 64.5 | <1 | <100 | <10 | <10 | 39.2% | <10 | 60 |
| Std Nominal | 106 | <1 | 1.31% | <10 | | | 10 | 423 |
| Determined | 105 | <1 | 1.30% | <10 | 10 | 27.6% | 10 | 419 |
| SA4005 | 84.5 | <1 | 200 | <10 | 10 | 36.2% | <10 | 46 |
| SA4006 | 72.0 | <1 | <100 | <10 | 10 | 35.1% | <10 | 47 |
| SA4006 Rpt | 74.5 | <1 | <100 | <10 | 10 | 34.9% | <10 | 48 |
| SA4007 | 96.5 | <1 | <100 | <10 | 10 | 31.4% | <10 | 59 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ta | Th | Ti | Tl | U | V | W | Y |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 0.5 | 100 | 2 | 0.5 | 50 | 5 | 1 |
| BLANK 1 | <0.5 | <0.5 | <100 | <2 | <0.5 | <50 | <5 | <1 |
| SA3800 | 0.5 | 11.5 | 3400 | <2 | 2.0 | <50 | <5 | 18 |
| SA3801 | 0.5 | 11.5 | 3600 | <2 | 2.0 | <50 | <5 | 20 |
| SA3802 | 0.5 | 12.0 | 3900 | <2 | 2.0 | <50 | <5 | 22 |
| SA3803 | 0.5 | 10.5 | 3500 | <2 | 2.0 | <50 | <5 | 20 |
| SA3804 | 0.5 | 12.0 | 3400 | <2 | 2.5 | <50 | <5 | 19 |
| SA3805 | 0.5 | 10.5 | 3400 | <2 | 2.0 | <50 | <5 | 20 |
| SA3805 REP | 0.5 | 13.0 | 3100 | <2 | 2.0 | <50 | <5 | 21 |
| SA3806 | 0.5 | 13.5 | 4200 | <2 | 2.5 | <50 | <5 | 24 |
| Std Nominal | 0.5 | 8.0 | | | 59.0 | 100 | 175 | 17 |
| Determined | <0.5 | 8.0 | 3000 | <2 | 57.0 | <50 | 175 | 18 |
| SA3807 | 0.5 | 14.0 | 3900 | <2 | 2.5 | <50 | <5 | 22 |
| Std Nominal | 1.0 | 11.5 | 1800 | <2 | 4.0 | <50 | 5 | 11 |
| Determined | 1.0 | 10.5 | 1800 | <2 | 4.5 | <50 | <5 | 12 |
| SA3808 | 0.5 | 12.0 | 3900 | <2 | 2.0 | <50 | <5 | 20 |
| SA3809 | 0.5 | 12.5 | 4100 | <2 | 2.5 | <50 | <5 | 22 |
| SA3810 | 0.5 | 14.0 | 4500 | <2 | 2.5 | <50 | <5 | 23 |
| SA3811 | 0.5 | 12.5 | 4100 | <2 | 2.5 | <50 | <5 | 23 |
| SA3812 | <0.5 | 11.5 | 3600 | <2 | 2.0 | <50 | <5 | 19 |
| SA3813 | 0.5 | 11.5 | 3500 | <2 | 2.0 | <50 | <5 | 19 |
| SA3814 | 0.5 | 12.5 | 3400 | <2 | 2.0 | <50 | <5 | 19 |
| SA3815 | 0.5 | 13.0 | 3900 | <2 | 2.5 | <50 | <5 | 23 |
| SA3816 | 0.5 | 11.5 | 3300 | <2 | 2.0 | <50 | <5 | 19 |
| SA3816 Rpt | 0.5 | 11.5 | 3200 | <2 | 2.0 | <50 | <5 | 18 |
| SA3817 | 0.5 | 16.0 | 4200 | <2 | 3.0 | <50 | <5 | 26 |
| SA3818 | 0.5 | 12.5 | 3500 | <2 | 2.0 | <50 | <5 | 21 |
| SA3819 | 0.5 | 14.5 | 4300 | <2 | 2.5 | <50 | <5 | 24 |
| SA3820 | 0.5 | 11.5 | 3400 | <2 | 2.0 | <50 | <5 | 18 |
| SA3821 | 0.5 | 13.0 | 3800 | <2 | 2.0 | <50 | <5 | 20 |
| SA3822 | 0.5 | 12.0 | 3600 | <2 | 2.0 | <50 | <5 | 20 |
| SA3823 | 0.5 | 11.5 | 3700 | <2 | 2.0 | <50 | <5 | 19 |
| SA3824 | 0.5 | 11.5 | 3600 | <2 | 2.0 | <50 | <5 | 19 |
| SA3825 | 1.0 | 14.5 | 4800 | <2 | 2.5 | <50 | <5 | 24 |
| SA3826 | 0.5 | 14.0 | 4100 | <2 | 2.5 | <50 | <5 | 23 |
| SA3827 | 0.5 | 12.0 | 3700 | <2 | 2.0 | <50 | <5 | 21 |
| SA3828 | 0.5 | 14.0 | 3900 | <2 | 2.5 | <50 | <5 | 23 |
| SA3829 | 0.5 | 13.5 | 3400 | <2 | 5.5 | <50 | <5 | 24 |
| SA3830 | 0.5 | 14.5 | 4200 | <2 | 2.5 | <50 | <5 | 22 |
| SA3830 Rpt | 0.5 | 14.0 | 3900 | <2 | 2.5 | <50 | <5 | 21 |
| SA3831 | 0.5 | 13.0 | 3700 | <2 | 2.0 | <50 | <5 | 21 |
| SA3832 | 0.5 | 11.5 | 3600 | <2 | 2.0 | <50 | <5 | 19 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ta | Th | Ti | Tl | U | V | W | Y |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 0.5 | 100 | 2 | 0.5 | 50 | 5 | 1 |
| SA3833 | <0.5 | 10.5 | 3300 | <2 | 2.0 | <50 | <5 | 17 |
| SA3834 | 0.5 | 11.5 | 3500 | <2 | 2.0 | <50 | <5 | 18 |
| SA3835 | 0.5 | 14.0 | 4400 | <2 | 2.5 | <50 | <5 | 22 |
| SA3836 | 0.5 | 13.0 | 3800 | <2 | 3.0 | <50 | <5 | 22 |
| Std Nominal | 1.0 | 16.0 | 4400 | <2 | 3.5 | | <5 | 26 |
| Determined | 1.0 | 17.0 | 4300 | <2 | 3.5 | <50 | <5 | 28 |
| SA3837 | 1.0 | 15.0 | 4400 | <2 | 2.5 | <50 | <5 | 22 |
| SA3838 | 0.5 | 13.5 | 3800 | <2 | 2.5 | <50 | <5 | 22 |
| SA3839 | 1.0 | 16.0 | 4200 | <2 | 3.0 | <50 | <5 | 26 |
| SA3840 | 0.5 | 13.0 | 4200 | <2 | 2.5 | <50 | <5 | 23 |
| Std Nominal | 0.5 | 8.5 | 3600 | <2 | 2.5 | 150 | <5 | 18 |
| Determined | 0.5 | 8.0 | 3700 | <2 | 2.5 | 100 | <5 | 16 |
| SA3841 | 1.0 | 15.0 | 4400 | <2 | 2.5 | <50 | <5 | 23 |
| SA3842 | 1.0 | 17.0 | 3700 | <2 | 3.0 | <50 | 10 | 21 |
| SA3843 | 1.0 | 14.0 | 3900 | <2 | 2.0 | <50 | <5 | 24 |
| SA3844 | 0.5 | 13.0 | 3500 | <2 | 2.0 | <50 | <5 | 19 |
| SA3845 | 0.5 | 29.0 | 3300 | <2 | 2.5 | <50 | <5 | 21 |
| SA3846 | 0.5 | 13.5 | 3300 | <2 | 2.0 | <50 | <5 | 20 |
| SA3847 | 0.5 | 13.5 | 3200 | <2 | 2.5 | <50 | <5 | 19 |
| SA3848 | 1.0 | 14.5 | 3500 | <2 | 2.5 | <50 | <5 | 23 |
| BLANK 2 | <0.5 | <0.5 | <100 | <2 | <0.5 | <50 | <5 | <1 |
| SA3849 | 1.0 | 15.0 | 4000 | <2 | 3.0 | <50 | <5 | 24 |
| SA3850 | 1.0 | 17.0 | 4100 | <2 | 3.0 | <50 | <5 | 26 |
| SA3851 | 1.0 | 14.5 | 4200 | <2 | 2.5 | <50 | <5 | 25 |
| SA3852 | 0.5 | 14.0 | 4200 | <2 | 2.5 | <50 | <5 | 21 |
| SA3853 | 1.0 | 14.0 | 3900 | <2 | 2.0 | <50 | <5 | 22 |
| SA3854 | 1.0 | 14.0 | 3800 | <2 | 2.5 | <50 | <5 | 21 |
| Std Nominal | 0.5 | 8.0 | | | 59.0 | 100 | 175 | 17 |
| Determined | <0.5 | 8.5 | 2900 | <2 | 59.0 | <50 | 190 | 17 |
| SA3855 | 1.0 | 15.0 | 3700 | <2 | 2.5 | <50 | <5 | 23 |
| SA3856 | 1.0 | 17.0 | 3900 | <2 | 2.5 | <50 | <5 | 23 |
| SA3915 | 1.0 | 30.5 | 5600 | <2 | 2.5 | <50 | <5 | 28 |
| SA3929 | 1.0 | 26.0 | 5000 | <2 | 2.0 | <50 | <5 | 28 |
| SA3943 | 1.0 | 27.5 | 7500 | <2 | 2.5 | 50 | <5 | 33 |
| SA3957 | 1.0 | 24.0 | 4500 | <2 | 2.5 | <50 | <5 | 25 |
| Std Nominal | 1.0 | 11.5 | 1800 | <2 | 4.0 | <50 | 5 | 11 |
| Determined | 1.0 | 12.0 | 1600 | <2 | 4.5 | <50 | <5 | 12 |
| SA3972 | 0.5 | 13.5 | 2900 | <2 | 2.0 | <50 | <5 | 16 |
| SA3973 | 0.5 | 13.0 | 2900 | <2 | 2.0 | <50 | <5 | 16 |
| SA3974 | 0.5 | 14.0 | 2700 | <2 | 2.0 | <50 | <5 | 15 |
| SA3975 | 0.5 | 12.5 | 2900 | <2 | 2.0 | <50 | <5 | 16 |



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| Method | PF102 | PF102 | PF101 | PF102 | PF102 | PF101 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Ta | Th | Ti | Tl | U | V | W | Y |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.5 | 0.5 | 100 | 2 | 0.5 | 50 | 5 | 1 |
| SA3976 | <0.5 | 6.0 | 1500 | <2 | 0.5 | <50 | <5 | 7 |
| SA3977 | <0.5 | 10.5 | 2300 | <2 | 1.0 | <50 | <5 | 12 |
| SA3978 | <0.5 | 9.5 | 2300 | <2 | 1.0 | <50 | <5 | 12 |
| SA3979 | 0.5 | 14.5 | 2900 | <2 | 2.0 | <50 | <5 | 15 |
| SA3980 | <0.5 | 16.5 | 2900 | <2 | 2.0 | <50 | <5 | 14 |
| SA3980 Rpt | 0.5 | 16.0 | 3000 | <2 | 2.0 | <50 | <5 | 16 |
| SA3981 | 0.5 | 17.5 | 3200 | <2 | 2.0 | <50 | <5 | 16 |
| SA3982 | 0.5 | 16.5 | 2800 | <2 | 2.0 | <50 | <5 | 14 |
| SA3983 | 0.5 | 23.0 | 4000 | <2 | 2.5 | <50 | <5 | 20 |
| SA3984 | 0.5 | 16.0 | 3300 | <2 | 2.0 | <50 | <5 | 16 |
| SA3985 | 0.5 | 15.0 | 3000 | <2 | 2.0 | <50 | <5 | 15 |
| SA3986 | 0.5 | 12.5 | 2800 | <2 | 2.0 | <50 | <5 | 14 |
| SA3987 | <0.5 | 12.0 | 2500 | <2 | 1.0 | <50 | <5 | 16 |
| SA3988 | 0.5 | 15.0 | 3100 | <2 | 2.0 | <50 | <5 | 15 |
| SA3989 | 0.5 | 14.5 | 3100 | <2 | 2.0 | <50 | <5 | 15 |
| SA3990 | 0.5 | 16.0 | 2900 | <2 | 2.0 | <50 | <5 | 14 |
| SA3991 | 0.5 | 25.0 | 2800 | <2 | 2.0 | <50 | <5 | 14 |
| SA3992 | 0.5 | 17.5 | 3000 | <2 | 2.0 | <50 | <5 | 16 |
| SA3993 | 0.5 | 14.5 | 3300 | <2 | 2.0 | <50 | <5 | 18 |
| Std Nominal | 1.0 | 16.0 | 4400 | <2 | 3.5 | | <5 | 26 |
| Determined | 1.5 | 19.0 | 4100 | <2 | 3.5 | <50 | <5 | 28 |
| SA3994 | 0.5 | 14.5 | 3000 | <2 | 1.0 | <50 | <5 | 18 |
| SA3995 | <0.5 | 16.5 | 3300 | <2 | 1.0 | <50 | <5 | 18 |
| SA3996 | <0.5 | 14.5 | 2700 | <2 | 1.0 | <50 | <5 | 19 |
| SA3997 | 0.5 | 23.0 | 3900 | <2 | 2.0 | <50 | <5 | 18 |
| SA3998 | 0.5 | 34.5 | 4800 | <2 | 2.5 | <50 | <5 | 31 |
| SA3999 | 0.5 | 23.0 | 3600 | <2 | 2.0 | <50 | <5 | 21 |
| SA4000 | 0.5 | 16.0 | 2900 | <2 | 2.0 | <50 | <5 | 16 |
| SA4001 | 0.5 | 16.0 | 3500 | <2 | 2.0 | <50 | <5 | 16 |
| SA4002 | 0.5 | 14.5 | 3000 | <2 | 1.0 | <50 | <5 | 15 |
| SA4003 | 0.5 | 12.5 | 3000 | <2 | 1.0 | <50 | <5 | 15 |
| SA4004 | 0.5 | 15.0 | 3400 | <2 | 2.0 | <50 | <5 | 16 |
| Std Nominal | 0.5 | 8.5 | 3600 | <2 | 2.5 | 150 | <5 | 18 |
| Determined | 1.0 | 8.5 | 3900 | <2 | 2.5 | 100 | <5 | 17 |
| SA4005 | 1.0 | 24.5 | 5200 | <2 | 2.5 | <50 | <5 | 24 |
| SA4006 | 1.0 | 28.5 | 6000 | <2 | 3.0 | <50 | <5 | 28 |
| SA4006 Rpt | 1.0 | 29.0 | 5900 | <2 | 3.0 | <50 | <5 | 28 |
| SA4007 | 0.5 | 30.0 | 5300 | <2 | 2.0 | <50 | <5 | 30 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Zn | Zr | La | Ce | Pr | Nd | Sm | Eu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 10 | 0.5 | 0.5 | 0.2 | 0.5 | 0.5 | 0.2 |
| BLANK 1 | <10 | <10 | <0.5 | 0.5 | <0.2 | <0.5 | <0.5 | <0.2 |
| SA3800 | 30 | 610 | 27.5 | 54.5 | 6.8 | 23.0 | 4.0 | 0.6 |
| SA3801 | 20 | 630 | 27.5 | 54.0 | 6.8 | 24.0 | 4.0 | 0.6 |
| SA3802 | 30 | 530 | 29.0 | 59.5 | 7.0 | 27.5 | 5.5 | 0.8 |
| SA3803 | 40 | 460 | 27.5 | 54.0 | 6.2 | 23.5 | 4.0 | 0.6 |
| SA3804 | 30 | 570 | 29.0 | 57.5 | 6.8 | 24.5 | 4.0 | 0.6 |
| SA3805 | 30 | 630 | 27.0 | 52.0 | 6.2 | 22.5 | 4.5 | 0.8 |
| SA3805 REP | 30 | 490 | 25.5 | 51.0 | 6.6 | 24.0 | 4.5 | 0.8 |
| SA3806 | 40 | 780 | 33.5 | 64.0 | 8.0 | 28.5 | 5.0 | 0.8 |
| Std Nominal | 60 | 100 | 286 | 201 | 12.8 | 32.5 | 4.5 | 2.0 |
| Determined | 90 | 100 | 314 | 201 | 12.8 | 32.5 | 4.0 | 2.0 |
| SA3807 | 20 | 810 | 32.5 | 65.5 | 7.6 | 28.0 | 4.5 | 0.8 |
| Std Nominal | 1330 | 160 | 31.0 | 63.0 | 7.6 | 27.0 | 5.0 | 1.2 |
| Determined | 1320 | 180 | 32.5 | 65.5 | 7.6 | 26.5 | 4.5 | 0.8 |
| SA3808 | 40 | 660 | 28.5 | 55.5 | 6.8 | 24.0 | 4.0 | 0.6 |
| SA3809 | 30 | 560 | 30.5 | 58.0 | 7.2 | 26.5 | 4.5 | 0.8 |
| SA3810 | 30 | 720 | 32.5 | 65.0 | 8.0 | 28.5 | 5.0 | 0.8 |
| SA3811 | 30 | 680 | 30.5 | 59.0 | 7.4 | 26.0 | 4.5 | 0.8 |
| SA3812 | 30 | 590 | 26.5 | 50.5 | 6.0 | 22.5 | 3.5 | 0.6 |
| SA3813 | 30 | 640 | 26.5 | 51.5 | 6.2 | 21.5 | 4.0 | 0.6 |
| SA3814 | 30 | 560 | 28.0 | 54.0 | 6.8 | 23.0 | 4.0 | 0.6 |
| SA3815 | 40 | 730 | 29.5 | 59.5 | 7.2 | 26.5 | 4.5 | 0.8 |
| SA3816 | 30 | 530 | 27.0 | 51.5 | 6.2 | 22.5 | 4.0 | 0.6 |
| SA3816 Rpt | 30 | 480 | 27.5 | 52.5 | 6.2 | 23.0 | 3.5 | 0.6 |
| SA3817 | 70 | 760 | 37.0 | 72.5 | 8.8 | 33.0 | 5.5 | 1.0 |
| SA3818 | 40 | 630 | 29.0 | 57.5 | 7.0 | 25.0 | 4.0 | 0.8 |
| SA3819 | 30 | 770 | 34.5 | 68.0 | 8.2 | 28.5 | 5.0 | 0.8 |
| SA3820 | 40 | 540 | 25.5 | 53.5 | 6.4 | 23.0 | 4.5 | 0.8 |
| SA3821 | 30 | 700 | 31.0 | 58.0 | 7.0 | 26.0 | 4.0 | 0.6 |
| SA3822 | 30 | 600 | 27.0 | 52.0 | 6.2 | 23.0 | 4.0 | 0.6 |
| SA3823 | 40 | 480 | 26.5 | 51.5 | 6.0 | 23.5 | 4.0 | 0.8 |
| SA3824 | 30 | 580 | 26.5 | 51.0 | 6.0 | 22.5 | 3.5 | 0.6 |
| SA3825 | 30 | 670 | 33.5 | 63.5 | 8.0 | 29.5 | 5.0 | 0.8 |
| SA3826 | 40 | 670 | 31.5 | 63.0 | 7.6 | 28.0 | 5.0 | 0.8 |
| SA3827 | 40 | 570 | 29.5 | 56.5 | 7.0 | 24.5 | 4.0 | 0.8 |
| SA3828 | 40 | 780 | 32.5 | 63.5 | 7.6 | 28.0 | 4.5 | 0.8 |
| SA3829 | 40 | 570 | 25.5 | 54.0 | 6.6 | 24.0 | 4.5 | 0.8 |
| SA3830 | 30 | 610 | 33.5 | 66.0 | 8.0 | 28.0 | 4.5 | 0.8 |
| SA3830 Rpt | 40 | 570 | 31.0 | 62.5 | 7.4 | 27.5 | 4.5 | 0.8 |
| SA3831 | 20 | 720 | 30.5 | 61.5 | 7.2 | 26.5 | 5.5 | 0.8 |
| SA3832 | 40 | 510 | 27.0 | 52.0 | 6.2 | 23.0 | 4.0 | 0.8 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Zn | Zr | La | Ce | Pr | Nd | Sm | Eu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 10 | 0.5 | 0.5 | 0.2 | 0.5 | 0.5 | 0.2 |
| SA3833 | 30 | 480 | 24.0 | 49.5 | 5.8 | 21.0 | 3.5 | 0.6 |
| SA3834 | 30 | 490 | 26.5 | 51.5 | 6.0 | 22.5 | 4.0 | 0.6 |
| SA3835 | 30 | 720 | 31.0 | 61.5 | 7.4 | 26.5 | 5.0 | 0.8 |
| SA3836 | 30 | 630 | 30.0 | 59.0 | 7.2 | 26.5 | 4.5 | 0.8 |
| Std Nominal | 70 | 210 | 44.0 | 89.0 | 10.2 | 37.0 | 7.0 | 1.2 |
| Determined | 60 | 200 | 45.0 | 88.0 | 10.4 | 37.5 | 7.5 | 1.2 |
| SA3837 | 40 | 690 | 33.5 | 65.0 | 8.0 | 28.5 | 5.0 | 0.8 |
| SA3838 | 40 | 710 | 31.0 | 61.5 | 7.4 | 26.0 | 4.5 | 0.8 |
| SA3839 | 30 | 720 | 37.5 | 71.5 | 8.6 | 33.0 | 5.5 | 0.8 |
| SA3840 | 30 | 540 | 31.5 | 62.5 | 7.6 | 28.5 | 5.0 | 0.8 |
| Std Nominal | 110 | 60 | 19.5 | 38.5 | 4.6 | 17.5 | 3.5 | 1.0 |
| Determined | 100 | 110 | 18.0 | 35.5 | 4.4 | 16.5 | 3.0 | 0.8 |
| SA3841 | 30 | 650 | 33.5 | 65.5 | 8.0 | 28.0 | 4.5 | 0.8 |
| SA3842 | 40 | 510 | 38.5 | 77.0 | 9.2 | 31.5 | 5.0 | 0.8 |
| SA3843 | 40 | 490 | 34.5 | 66.5 | 8.2 | 30.0 | 5.0 | 1.0 |
| SA3844 | 40 | 500 | 29.0 | 56.5 | 6.8 | 24.5 | 4.5 | 0.8 |
| SA3845 | 40 | 490 | 66.0 | 131 | 15.2 | 53.0 | 8.5 | 1.0 |
| SA3846 | 30 | 630 | 28.5 | 55.5 | 6.8 | 23.5 | 4.5 | 0.8 |
| SA3847 | 30 | 530 | 28.5 | 55.5 | 7.0 | 24.0 | 4.0 | 0.6 |
| SA3848 | 40 | 580 | 32.5 | 63.5 | 7.6 | 28.5 | 5.0 | 0.8 |
| BLANK 2 | <10 | 20 | <0.5 | <0.5 | <0.2 | <0.5 | <0.5 | <0.2 |
| SA3849 | 40 | 690 | 34.0 | 64.0 | 8.2 | 28.5 | 5.0 | 0.8 |
| SA3850 | 40 | 810 | 37.5 | 73.5 | 9.2 | 33.5 | 5.5 | 0.8 |
| SA3851 | 30 | 680 | 32.5 | 61.0 | 8.0 | 28.5 | 5.0 | 0.8 |
| SA3852 | 30 | 660 | 30.0 | 57.5 | 7.6 | 26.0 | 4.5 | 0.8 |
| SA3853 | 40 | 580 | 31.5 | 60.5 | 7.6 | 27.5 | 5.0 | 0.8 |
| SA3854 | 40 | 620 | 30.0 | 60.5 | 7.2 | 26.0 | 4.5 | 0.8 |
| Std Nominal | 60 | 100 | 286 | 201 | 12.8 | 32.5 | 4.5 | 2.0 |
| Determined | 70 | 100 | 306 | 193 | 12.2 | 31.0 | 4.0 | 2.0 |
| SA3855 | 40 | 650 | 36.0 | 69.0 | 8.4 | 30.5 | 5.0 | 0.8 |
| SA3856 | 40 | 750 | 36.5 | 70.5 | 8.6 | 31.0 | 5.5 | 0.8 |
| SA3915 | 70 | 720 | 73.0 | 148 | 16.8 | 57.0 | 8.5 | 1.4 |
| SA3929 | 60 | 520 | 60.5 | 119 | 13.8 | 50.5 | 7.5 | 1.2 |
| SA3943 | 60 | 680 | 80.0 | 162 | 19.4 | 68.5 | 10.5 | 1.6 |
| SA3957 | 40 | 720 | 53.0 | 106 | 12.2 | 43.5 | 7.0 | 1.2 |
| Std Nominal | 1330 | 160 | 31.0 | 63.0 | 7.6 | 27.0 | 5.0 | 1.2 |
| Determined | 1270 | 180 | 34.0 | 65.5 | 7.6 | 27.5 | 5.0 | 1.0 |
| SA3972 | 20 | 290 | 28.0 | 55.0 | 6.2 | 23.5 | 4.0 | 0.6 |
| SA3973 | 20 | 320 | 28.5 | 55.0 | 6.2 | 23.5 | 3.5 | 0.6 |
| SA3974 | 20 | 360 | 30.0 | 59.5 | 7.2 | 25.0 | 4.5 | 0.8 |
| SA3975 | 20 | 310 | 27.5 | 52.0 | 6.0 | 22.5 | 4.0 | 0.6 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Zn | Zr | La | Ce | Pr | Nd | Sm | Eu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 10 | 10 | 0.5 | 0.5 | 0.2 | 0.5 | 0.5 | 0.2 |
| SA3976 | 20 | 120 | 12.0 | 25.0 | 2.8 | 10.5 | 1.5 | 0.4 |
| SA3977 | 30 | 280 | 22.5 | 44.0 | 5.0 | 19.0 | 3.0 | 0.6 |
| SA3978 | 30 | 270 | 22.5 | 39.0 | 4.8 | 16.5 | 3.0 | 0.6 |
| SA3979 | 20 | 330 | 30.5 | 60.5 | 7.4 | 25.0 | 4.0 | 0.6 |
| SA3980 | 20 | 330 | 34.5 | 68.5 | 8.0 | 28.5 | 4.5 | 0.6 |
| SA3980 Rpt | 20 | 330 | 34.0 | 67.0 | 8.0 | 27.5 | 4.5 | 0.6 |
| SA3981 | 20 | 330 | 37.5 | 74.5 | 8.8 | 31.0 | 5.0 | 0.6 |
| SA3982 | 30 | 310 | 34.5 | 67.0 | 8.0 | 28.0 | 4.0 | 0.6 |
| SA3983 | 30 | 630 | 51.0 | 97.0 | 11.8 | 40.5 | 6.5 | 0.8 |
| SA3984 | 20 | 320 | 33.5 | 63.5 | 7.6 | 26.0 | 4.5 | 0.6 |
| SA3985 | 20 | 300 | 31.5 | 63.5 | 7.4 | 26.5 | 4.0 | 0.6 |
| SA3986 | 20 | 270 | 26.5 | 50.5 | 5.8 | 20.5 | 3.5 | 0.6 |
| SA3987 | 10 | 270 | 24.0 | 49.0 | 5.8 | 20.0 | 4.5 | 0.6 |
| SA3988 | 20 | 330 | 31.0 | 62.5 | 7.4 | 27.0 | 4.5 | 0.8 |
| SA3989 | 20 | 320 | 32.5 | 65.0 | 7.6 | 27.5 | 4.5 | 0.6 |
| SA3990 | 20 | 290 | 33.5 | 66.5 | 8.0 | 27.5 | 4.5 | 0.6 |
| SA3991 | 50 | 300 | 52.5 | 107 | 12.8 | 44.0 | 6.0 | 0.6 |
| SA3992 | 20 | 340 | 37.5 | 74.0 | 8.6 | 30.5 | 5.0 | 0.8 |
| SA3993 | 30 | 340 | 32.5 | 65.0 | 7.6 | 26.5 | 4.5 | 0.8 |
| Std Nominal | 70 | 210 | 44.0 | 89.0 | 10.2 | 37.0 | 7.0 | 1.2 |
| Determined | 60 | 190 | 47.5 | 92.0 | 11.0 | 39.5 | 7.0 | 1.2 |
| SA3994 | 30 | 270 | 31.5 | 62.5 | 7.4 | 26.0 | 4.0 | 0.6 |
| SA3995 | 30 | 300 | 37.0 | 72.5 | 8.8 | 30.5 | 4.5 | 0.8 |
| SA3996 | 20 | 270 | 32.5 | 65.5 | 7.6 | 26.5 | 4.5 | 0.6 |
| SA3997 | 30 | 560 | 51.0 | 98.5 | 11.8 | 40.0 | 6.5 | 0.8 |
| SA3998 | 60 | 740 | 80.0 | 156 | 18.2 | 64.5 | 10.0 | 1.2 |
| SA3999 | 30 | 490 | 50.0 | 95.5 | 11.6 | 40.0 | 6.5 | 0.8 |
| SA4000 | 30 | 320 | 34.5 | 66.5 | 8.0 | 28.0 | 4.5 | 0.8 |
| SA4001 | 40 | 320 | 34.0 | 67.0 | 8.0 | 27.5 | 5.0 | 0.6 |
| SA4002 | 20 | 280 | 32.5 | 63.5 | 7.4 | 27.0 | 4.5 | 0.6 |
| SA4003 | 30 | 270 | 28.0 | 54.5 | 6.2 | 23.0 | 4.0 | 0.8 |
| SA4004 | 30 | 320 | 34.5 | 67.0 | 8.0 | 27.5 | 4.5 | 0.8 |
| Std Nominal | 110 | 60 | 19.5 | 38.5 | 4.6 | 17.5 | 3.5 | 1.0 |
| Determined | 100 | 110 | 20.0 | 39.0 | 4.6 | 18.0 | 3.5 | 0.8 |
| SA4005 | 50 | 580 | 52.5 | 100 | 12.2 | 42.0 | 7.0 | 1.0 |
| SA4006 | 50 | 770 | 60.0 | 118 | 14.2 | 51.0 | 8.0 | 1.0 |
| SA4006 Rpt | 40 | 800 | 62.0 | 122 | 14.6 | 52.0 | 8.5 | 1.0 |
| SA4007 | 90 | 560 | 68.5 | 136 | 16.4 | 56.5 | 9.0 | 1.2 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 2 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 |
| BLANK 1 | <2 | <0.2 | 0.0 | <0.2 | <0.5 | <0.2 | <0.5 | <0.2 |
| SA3800 | 4 | 0.4 | 3.0 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3801 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3802 | 4 | 0.6 | 4.0 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3803 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3804 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3805 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.4 |
| SA3805 REP | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.4 |
| SA3806 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| Std Nominal | 4 | 0.6 | 3.0 | 0.6 | 2.0 | | 2.0 | 0.2 |
| Determined | 4 | 0.4 | 3.0 | 0.6 | 1.5 | 0.2 | 2.0 | 0.4 |
| SA3807 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.5 | 0.4 |
| Std Nominal | 4 | 0.6 | 2.5 | 0.4 | 1.0 | <0.2 | 0.5 | <0.2 |
| Determined | 4 | 0.4 | 2.5 | 0.4 | 1.0 | <0.2 | 0.5 | <0.2 |
| SA3808 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3809 | 4 | 0.4 | 3.5 | 0.6 | 2.0 | 0.2 | 2.0 | 0.4 |
| SA3810 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3811 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3812 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3813 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3814 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3815 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3816 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3816 Rpt | 4 | 0.4 | 3.0 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3817 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3818 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3819 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3820 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3821 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.4 |
| SA3822 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3823 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3824 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3825 | 4 | 0.6 | 3.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3826 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3827 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.4 |
| SA3828 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3829 | 4 | 0.4 | 3.5 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3830 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3830 Rpt | 4 | 0.4 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3831 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3832 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 2 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 |
| SA3833 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3834 | 4 | 0.4 | 2.5 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3835 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3836 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.0 | 0.4 |
| Std Nominal | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 2.5 | 0.4 |
| Determined | 6 | 0.8 | 4.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3837 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3838 | 4 | 0.6 | 3.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3839 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 3.0 | 0.4 |
| SA3840 | 4 | 0.6 | 3.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| Std Nominal | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| Determined | 2 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3841 | 4 | 0.6 | 3.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3842 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3843 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3844 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3845 | 6 | 0.8 | 4.0 | 0.8 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA3846 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3847 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.4 | 2.0 | 0.2 |
| SA3848 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| BLANK 2 | <2 | <0.2 | 0.0 | <0.2 | <0.5 | <0.2 | <0.5 | <0.2 |
| SA3849 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 3.0 | 0.4 |
| SA3850 | 6 | 0.6 | 4.5 | 0.8 | 2.5 | 0.4 | 3.0 | 0.4 |
| SA3851 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3852 | 4 | 0.6 | 3.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3853 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3854 | 4 | 0.6 | 3.0 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| Std Nominal | 4 | 0.6 | 3.0 | 0.6 | 2.0 | | 2.0 | 0.2 |
| Determined | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 2.0 | 0.4 |
| SA3855 | 4 | 0.6 | 3.5 | 0.6 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3856 | 4 | 0.6 | 4.0 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA3915 | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 3.0 | 0.4 |
| SA3929 | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 3.5 | 0.4 |
| SA3943 | 8 | 1.0 | 6.0 | 1.2 | 3.5 | 0.4 | 3.5 | 0.4 |
| SA3957 | 6 | 0.8 | 4.5 | 0.8 | 2.5 | 0.4 | 3.0 | 0.4 |
| Std Nominal | 4 | 0.6 | 2.5 | 0.4 | 1.0 | <0.2 | 0.5 | <0.2 |
| Determined | 4 | 0.4 | 2.5 | 0.4 | 1.0 | <0.2 | 0.5 | <0.2 |
| SA3972 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3973 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3974 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3975 | 2 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |



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| Method | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 | PF102 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Result Name | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu |
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 2 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 | 0.5 | 0.2 |
| SA3976 | <2 | <0.2 | 1.0 | 0.2 | 1.0 | <0.2 | 0.5 | <0.2 |
| SA3977 | 2 | 0.4 | 2.0 | 0.4 | 1.5 | <0.2 | 1.5 | 0.2 |
| SA3978 | 2 | 0.4 | 2.0 | 0.4 | 1.5 | <0.2 | 1.0 | 0.2 |
| SA3979 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3980 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3980 Rpt | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3981 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3982 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.0 | 0.2 |
| SA3983 | 6 | 0.6 | 3.5 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| SA3984 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3985 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | <0.2 | 1.0 | 0.2 |
| SA3986 | 2 | 0.4 | 2.0 | 0.4 | 1.0 | <0.2 | 1.0 | <0.2 |
| SA3987 | 2 | 0.4 | 2.5 | 0.4 | 1.5 | <0.2 | 1.5 | <0.2 |
| SA3988 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | <0.2 | 1.0 | 0.2 |
| SA3989 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3990 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.0 | 0.2 |
| SA3991 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3992 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3993 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| Std Nominal | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 2.5 | 0.4 |
| Determined | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 3.0 | 0.4 |
| SA3994 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3995 | 4 | 0.6 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3996 | 4 | 0.4 | 3.0 | 0.6 | 2.0 | 0.2 | 1.5 | 0.2 |
| SA3997 | 4 | 0.4 | 3.0 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA3998 | 8 | 0.8 | 5.5 | 1.0 | 3.5 | 0.4 | 3.5 | 0.6 |
| SA3999 | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.4 | 2.0 | 0.4 |
| SA4000 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA4001 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA4002 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA4003 | 4 | 0.4 | 2.5 | 0.4 | 1.5 | <0.2 | 1.5 | <0.2 |
| SA4004 | 4 | 0.4 | 2.5 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| Std Nominal | 4 | 0.6 | 3.5 | 0.6 | 2.0 | 0.2 | 2.0 | 0.2 |
| Determined | 4 | 0.4 | 3.0 | 0.6 | 1.5 | 0.2 | 1.5 | 0.2 |
| SA4005 | 6 | 0.6 | 4.5 | 0.8 | 2.5 | 0.4 | 2.5 | 0.4 |
| SA4006 | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 3.0 | 0.4 |
| SA4006 Rpt | 6 | 0.8 | 5.0 | 1.0 | 3.0 | 0.4 | 3.5 | 0.4 |
| SA4007 | 6 | 0.8 | 5.5 | 1.0 | 3.0 | 0.4 | 3.0 | 0.4 |



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These results pertain to the samples as received at this laboratory.
Where standards are reported, the nominal value for the element is reported above the result found.

"%" Implies this result reported in %

Sample Storage

The excess material (Residue) will be held after 30 days

The pulp samples (Pulp) will be held after 60 days as per instructions.

Sample Preparation

Samples are dried and then the whole pulverised.

Digest and Analysis:

The samples have been fused with Sodium Peroxide and subsequently the melt has been dissolved in dilute Hydrochloric acid for analysis. Because of the high furnace temperatures, volatile elements are lost. This procedure is particularly efficient for determination of Major element composition (including Silica) in the samples or for the determination of refractory mineral species.

Ba,Ca,Cr,Fe,K,Li,Mg,Mn,P,S,Sc,Si,Ti,V

have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

Ag,As,Be,Bi,Cd,Ce,Co,Cs,Cu,Dy,Er,Eu,Gd,Ge,Hf,Ho,In,La,Lu,Mo,Nb,Nd,Ni,Pb,Pr,Rb,Re,Sb,Sm,Sn,Sr,Ta,Tb,Th,Tl,Tm,U,W,Y,Yb,Zn,Zr

have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.