EQUITY | EXPLORATION CONSULTANTS LTD.

# GeoSpark Logger ~ Drill Log

**Project:** KZK **Hole Number:** K16-396

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Prospect: | GP4F | Hole Type: | DD | Survey Type: | RTK DGPS | Logged By: | Roger Hulstein |
| Grid: | NAD83_Z9 | Hole Diameter: | 96 | Survey By: | Challenger_Survey | Date Logging Start: | 7/17/2016 |
| UTM Easting | 419505.137 | Core Size: | HQ3 | Azimuth: | 180.3 | Date Logging Complete: | 7/21/2016 |
| UTM Northing: | 6813219.449 | Casing Pulled?: | Yes | Dip: | -88 | Drill Company: | New Age |
| UTM Elev. (m): | 1333.63 | Casing Depth (m): | 10.5 | Length (m): | 210 | Drill Rig: | Zinex A5 |
| Local Easting: | | Stored?: | Yes | Claims Title | | Drill Started: | 7/16/2016 |
| Local Northing: | | Cemented?: | Yes | Core Storage Loc.: | KZK Camp | Drill Completed: | 7/19/2016 |
| Local Elev. (m): | | | | Hole Completed?: | Completed | Purpose: | Resource/Met |
| Comments: | | | | | | Parent Hole: | |

The purpose of this DDH is resource infill and to collect a metallurgical sample from the GP4F sulfide lens. Both objectives were accomplished. The GP4F lens was intersected at 83.74-90-90.53m (with minor interval of rhyolite) and consisted mainly of OJ type mineralization and lesser OF type. Sphalerite was up to 20% in some sections of OF. The lower lens was intersected from 160.57-167.72 and consisted of OJ type mineralization with strong cordierite alteration. Sphalerite content was up to 10% in one short interval but otherwise sulfides of interest were low. A major fault zone was intersected from 190.00-208.00m. Minor MDSt and MDS was recovered below 206.40m.

***Downhole Surveys:***

| Depth (m) | Dip | Measured Azimuth | Correction Factor | Corrected Azimuth | Survey Type | Survey By | Survey Date | Mag Field | Accept Values? | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -88 | 178.9 | 1.4 | 180.3 | TN14 | Roger Hulstein | 7/16/2016 | | ☑ | The azimuth was set by R.Hulstein and R.Voordouw on July 14, 2016 for DDH K16-393 using the TN14 gyrocompass which has the same azimuth. New Age Drilling set the dip for K16-396 on July 16, 2016. |
| 5 | -87.88264 | 178.45332 | 1.4 | 179.85332 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 10 | -87.92045 | 174.88075 | 1.4 | 176.28075 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 15 | -87.8262 | 169.12185 | 1.4 | 170.52185 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 18 | -87.7 | 164.9 | 22.1 | 187 | ReflexEZS | New Age | 7/16/2016 | 5801 | ☐ | |
| 20 | -87.52176 | 164.74818 | 1.4 | 166.14818 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 25 | -87.14496 | 160.85967 | 1.4 | 162.25967 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 30 | -86.7193 | 157.82749 | 1.4 | 159.22749 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 35 | -86.35194 | 156.56072 | 1.4 | 157.96072 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 40 | -85.97162 | 154.46769 | 1.4 | 155.86769 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 45 | -85.48331 | 152.52641 | 1.4 | 153.92641 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 45.01 | -85.4 | 155.9 | 22.1 | 178 | ReflexEZS | New Age | 7/17/2016 | 5766 | ☐ | |
| 50 | -85.02555 | 150.26248 | 1.4 | 151.66248 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 55 | -84.53368 | 149.40855 | 1.4 | 150.80855 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 60 | -84.18829 | 150.09329 | 1.4 | 151.49329 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 65 | -83.6703 | 150.4755 | 1.4 | 151.8755 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 70 | -83.26613 | 151.37982 | 1.4 | 152.77982 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |

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**Project:** KZK **Hole Number:** K16-396

| Depth (m) | Dip | Measured Azimuth | Correction Factor | Corrected Azimuth | Survey Type | Survey By | Survey Date | Mag Field | Accept Values? | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | -82.9294 | 152.43909 | 1.4 | 153.83909 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 75.01 | -83.3 | 156.2 | 22.1 | 178.3 | ReflexEZS | New Age | 7/17/2016 | 5758 | ☐ | |
| 80 | -82.71528 | 152.68983 | 1.4 | 154.08983 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 85 | -82.57495 | 153.29184 | 1.4 | 154.69184 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 90 | -82.606 | 153.09753 | 1.4 | 154.49753 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 95 | -82.47108 | 153.95787 | 1.4 | 155.35787 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 100 | -82.36601 | 155.63654 | 1.4 | 157.03654 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 102 | -82.3 | 160.5 | 22.1 | 182.6 | ReflexEZS | New Age | 7/17/2016 | 5719 | ☐ | |
| 105 | -82.16221 | 155.76944 | 1.4 | 157.16944 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 110 | -81.8883 | 156.80775 | 1.4 | 158.20775 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 115 | -81.6502 | 157.48017 | 1.4 | 158.88017 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 120 | -81.43425 | 158.80017 | 1.4 | 160.20017 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 123 | -81.2 | 164.3 | 22.1 | 186.4 | ReflexEZS | New Age | 7/17/2016 | 5741 | ☐ | |
| 125 | -81.35493 | 159.90796 | 1.4 | 161.30796 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 130 | -81.19214 | 160.69613 | 1.4 | 162.09613 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 135 | -80.99011 | 161.43494 | 1.4 | 162.83494 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 140 | -80.902 | 162.69777 | 1.4 | 164.09777 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 145 | -80.76447 | 163.55184 | 1.4 | 164.95184 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 150 | -80.62718 | 164.14116 | 1.4 | 165.54116 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 155 | -80.56389 | 163.86989 | 1.4 | 165.26989 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 159 | -80.2 | 168 | 22.1 | 190.1 | ReflexEZS | New Age | 7/18/2016 | 5904 | ☐ | |
| 160 | -80.43309 | 163.36987 | 1.4 | 164.76987 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 165 | -80.24616 | 163.31847 | 1.4 | 164.71847 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 170 | -80.18889 | 163.57638 | 1.4 | 164.97638 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 175 | -80.11233 | 164.21735 | 1.4 | 165.61735 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 180 | -80.00056 | 165.09501 | 1.4 | 166.49501 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 180.01 | -79.8 | 170.4 | 22.1 | 192.5 | ReflexEZS | New Age | 7/19/2016 | 5766 | ☐ | |
| 185 | -79.87056 | 165.68224 | 1.4 | 167.08224 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 190 | -79.722 | 166.13853 | 1.4 | 167.53853 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 195 | -79.60287 | 165.16825 | 1.4 | 166.56825 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 200 | -79.56115 | 164.9032 | 1.4 | 166.3032 | Gyro | David Nuttal | 7/19/2016 | | ☑ | Motion Quality = 100 |
| 210 | -79.6 | 170 | 22.1 | 192.1 | ReflexEZS | New Age | 7/19/2016 | 5747 | ☐ | |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

**0.00 11.10 OVBN Overburden**

**11.10 19.00 RHYva Coarse grained to ash tuff**

<<Alt: 11.1 - 19 Moderate-Strong Calcite>> also abundant calcite veinlets

<<Vein: 16 - 18 5% Calcite 60 deg. >> cross cutting and foliaform (at 60deg) calcite veinlets

<<Struc: 11.1 - 16 Moderate-Strong dominant foliation>>

<<Struc: 15 - 20 Moderate Fault>> broken and crushed core, missing core.

**19.00 24.15 SED undifferentiated Sediment light grey**

19 - 24.15: biotite and weak calcite on folia

<<Min: 20 - 27.45 0.1% Min: Pyrite>> trace!

<<Alt: 19 - 27.45 Weak Calcite>> fracture filling, veinlets and diss

<<Struc: 23 - 31 Weak Fault>> broken core, minor crushed zones (<10cm wide)

**24.15 27.45 RHYva Coarse grained to ash tuff**

**27.45 28.75 PEL Equigranular biotite + calcite +/- quartz rock**

<<Min: 27.45 - 28.75 3% Min: Pyrite>>

<<Min: 27.45 - 28.75 0.5% Min: Pyrrhotite>>

<<Alt: 27.45 - 28.75 Moderate Chlorite>>

<<Alt: 27.45 - 28.75 Moderate-Strong Calcite>>

<<Alt: 27.45 - 29.75 Weak-Moderate Biotite>>

**28.75 33.82 RHYvl Lapilli tuff**

<<Min: 28.75 - 33.85 3% Min: Pyrite>>

<<Min: 33.24 - 35.6 1% Min: Pyrrhotite>>

<<Min: 33.24 - 40.6 1% Min: Pyrite>>

<<Min: 33.7 - 45 3% Min: Pyrite>>

<<Alt: 28.75 - 33.4 Trace Chlorite>>

<<Alt: 29.75 - 33.82 Weak-Moderate Calcite>>

<<Alt: 33.24 - 53.62 Trace Biotite>>

<<Struc: 32.6 - 33 Weak-Moderate Fault>> broken core, minor crushed zones (<10cm wide)

**33.82 34.24 PEL Equigranular biotite + calcite +/- quartz rock**

<<Alt: 33.82 - 34.24 Moderate-Strong Calcite>>

**34.24 46.63 RHYvl Lapilli tuff**

<<Min: 40.6 - 44.7 5% Min: Pyrite>> in qtz bands (foliaform veinlets) and as diss

<<Min: 45 - 46.63 3% Min: Pyrite>>

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Alt: 34.24 - 39.6 Weak Calcite>>

<<Alt: 39.6 - 46.63 Trace Calcite>>

<<Vein: 39.44 - 41.23 20% Quartz 50 deg. >> foliaform bull qtz

<<Vein: 44 - 45 25% Quartz-Tourmaline>> foliaform and croscutting

<<Struc: 34.24 - 35 Moderate-Strong dominant foliation>>

**46.63 48.30 PEL Equigranular biotite + calcite +/- quartz rock**

46.63 - 48.3: gradational interfingering contacts

<<Min: 46.63 - 48.3 3% Min: Pyrrhotite>> in qtz-cal-chl bands

<<Alt: 46.63 - 48.3 Strong Calcite>>

<<Alt: 46.63 - 48.6 Weak-Moderate Chlorite>>

<<Vein: 46.7 - 48.53 10% Quarzt-Chlorite-Carbonate 65 deg. >> calcite, and qtz-calcite-chlorite veinlets

**48.30 53.62 RHYva Coarse grained to ash tuff**

48.3 - 53.62: some streaky biotite sections could be lpl

<<Min: 48.3 - 53.62 3% Min: Pyrite>>

<<Min: 48.3 - 54.6 1% Min: Pyrrhotite>>

<<Alt: 48.3 - 57.61 Weak Calcite>> patchy diss

<<Alt: 48.6 - 53.62 Trace Chlorite>>

<<Struc: 53.4 - 53.8 Moderate-Strong dominant foliation>>

**53.62 57.61 RHYvx Quartz and/or feldspar crystal tuff**

53.62 - 57.61: 53.82-54.52: RHYva, as above unit. Qtz marker unit

<<Min: 53.62 - 69.78 3% Min: Pyrite>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets, also as diss

<<Min: 56.1 - 57.61 0.5% Min: Sphalerite>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets

<<Min: 56.1 - 57.61 0.1% Min: Galena>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets

<<Min: 56.1 - 57.61 0.1% Min: Chalcopyrite>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets

<<Alt: 53.62 - 69.78 Moderate Chlorite>>

<<Alt: 53.62 - 69.78 Weak Biotite>>

<<Struc: 54.93 - 56.75 Weak-Moderate Fault>> broken and crushed core

**57.61 59.45 RHYva Coarse grained to ash tuff**

57.61 - 59.45: gradational biotite-calcite PEL on margins with green-grey RHYva in center.

| From (m) | To (m) | | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | <<Min: 57.61 - 59.45 0.1% Min: Chalcopyrite>> | | | | | | | | | |
| | | | <<Alt: 57.61 - 59.45 Moderate Calcite>> | | | | | | | | | |
| **59.45** | **69.68** | **RHYvx** | **Quartz and/or feldspar crystal tuff** | 60.00 | 61.50 | 1.50 | D00004406 | 0.029 | 6.2 | 0.26 | 0.09 | 0.3 |
| | | | 59.45 - 69.68: marker unit. 68.50-69.68m: increaseingly blebby, decrease in % qtz eyes, possible coarse prophyry clasts (white-light pink with rare blue qtz eyes) or 'clasts' may be albite alteration. Blebbly feldspar phenos also 'albite' altered. | | | | | | | | | |
| | | | <<Min: 59.45 - 62.7 0.5% Min: Sphalerite>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets, also as diss | 61.50 | 63.00 | 1.50 | D00004407 | 0.009 | 1.9 | 0.04 | 0.17 | 0.4 |
| | | | <<Min: 59.45 - 62.7 0.1% Min: Galena>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets | | | | | | | | | |
| | | | <<Min: 59.45 - 62.7 0.1% Min: Chalcopyrite>> mostly in thin qtz-chl-py-sp-cp foliaform veinlets | | | | | | | | | |
| | | | <<Alt: 59.45 - 69.78 Weak Calcite>> | | | | | | | | | |
| | | | <<Vein: 63.74 - 65.9 15% Quartz-Chlorite>> qtz vns, trace chl | | | | | | | | | |
| | | | <<Struc: 60.7 - 61 Moderate Fault>> broken and crushed core | | | | | | | | | |
| | | | <<Struc: 62.2 - 62.3 Weak-Moderate Fault>> crushed and gouge | | | | | | | | | |
| | | | <<Struc: 63.47 - 64 Moderate dominant foliation>> parallel to qtz-chl-sulfide veinlets | | | | | | | | | |
| | | | <<Struc: 64.13 - 64.53 Moderate-Strong Vein>> parallel to DFOL | | | | | | | | | |
| | | | <<Struc: 67.65 - 67.7 Moderate-Strong Contact>> | | | | | | | | | |
| **69.68** | **70.66** | **PEL** | **Equigranular biotite + calcite +/- quartz rock** | | | | | | | | | |
| | | | <<Min: 69.78 - 72 1% Min: Pyrite>> and in thin qtz-chl-py-sp-cp foliaform veinlets | | | | | | | | | |
| | | | <<Alt: 69.78 - 70.66 Trace Chlorite>> | | | | | | | | | |
| | | | <<Alt: 69.78 - 70.66 Moderate-Strong Calcite>> | | | | | | | | | |
| **70.66** | **76.74** | **RHYvx** | **Quartz and/or feldspar crystal tuff** | | | | | | | | | |
| | | | 70.66 - 76.74: mod-strong chl-bio alt, minor sufide in foliaform qtz-cal mm bands (<05cm wide) | | | | | | | | | |
| | | | <<Min: 72 - 76.74 0.5% Min: Pyrite>> | | | | | | | | | |
| | | | <<Alt: 70.66 - 76.72 Weak Calcite>> | | | | | | | | | |
| | | | <<Alt: 70.66 - 76.74 Moderate-Strong Chlorite>> | | | | | | | | | |
| | | | <<Alt: 76.72 - 80.6 Trace Calcite>> | | | | | | | | | |
| | | | <<Struc: 72 - 73.3 Weak Fault>> broken and crushed core, minor gouge | | | | | | | | | |
| **76.74** | **80.60** | **RHYva** | **Coarse grained to ash tuff** | 76.74 | 78.00 | 1.26 | D00004408 | 0.01 | 2.4 | 0.02 | 0.05 | 0.16 |
| | | | 76.74 - 80.6: pyritic, fine white muscovite altered below 78.25 | | | | | | | | | |
| | | | <<Min: 76.74 - 77.18 0.1% Min: Sphalerite>> | 78.00 | 79.20 | 1.20 | D00004409 | 0.036 | 3.4 | -0.01 | 0.05 | 0.05 |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| <<Min: 76.74 - 77.18 3% Min: Pyrite>> | | | 79.20 | 80.60 | 1.40 | D00004411 | 0.031 | 4.2 | -0.01 | 0.07 | 0.06 |
| <<Min: 76.74 - 77.18 0.1% Min: Galena>> | | | | | | | | | | | |
| <<Min: 76.74 - 77.18 0.5% Min: Chalcopyrite>> | | | | | | | | | | | |
| <<Min: 77.18 - 80.6 3% Min: Pyrite>> | | | | | | | | | | | |
| <<Alt: 76.74 - 78 Weak-Moderate Muscovite>> bleaching, fine white musc | | | | | | | | | | | |
| <<Alt: 78 - 80.6 Strong Muscovite>> bleaching, fine white musc | | | | | | | | | | | |
| <<Struc: 78 - 83.37 Moderate Fault>> broken and crushed core, minor gouge | | | | | | | | | | | |
| **80.60** | **82.21** | **PEL** **Equigranular biotite + calcite +/- quartz rock** | 80.60 | 82.21 | 1.61 | D00004412 | 0.009 | 0.3 | -0.01 | -0.01 | 0.07 |
| 80.6 - 82.21: contains qtz-calcite-chlorite bands | | | | | | | | | | | |
| <<Min: 80.6 - 82.21 1% Min: Pyrite>> | | | | | | | | | | | |
| <<Alt: 80.6 - 82.21 Moderate-Strong Calcite>> | | | | | | | | | | | |
| <<Alt: 80.6 - 82.31 Moderate-Strong Biotite>> | | | | | | | | | | | |
| <<Alt: 80.6 - 83.74 Weak Chlorite>> | | | | | | | | | | | |
| **82.21** | **83.74** | **RHYva** **Coarse grained to ash tuff** | 82.21 | 83.74 | 1.53 | D00004413 | 0.305 | 1.9 | 0.03 | 0.09 | 0.62 |
| <<Min: 82.21 - 83.74 3% Min: Pyrite>> | | | | | | | | | | | |
| <<Min: 83 - 83.74 0.5% Min: Sphalerite>> diss in 0.5cm qtz bands | | | | | | | | | | | |
| <<Min: 83.54 - 85.91 3% Min: Pyrrhotite>> | | | | | | | | | | | |
| <<Alt: 82.21 - 85.91 Trace Calcite>> | | | | | | | | | | | |
| <<Alt: 82.31 - 83.74 Weak Muscovite>> bleached, weak sericite | | | | | | | | | | | |
| <<Alt: 82.31 - 86 Weak-Moderate Biotite>> on folia | | | | | | | | | | | |
| <<Struc: 83.5 - 86 Moderate-Strong dominant foliation>> | | | | | | | | | | | |
| **83.74** | **85.91** | **OJ** **Heavilly disseminated sulphides and/or stringer style mineralization in proximal altered rock** **MCG** | 83.74 | 85.09 | 1.35 | D00004414 | 0.478 | 23.8 | 0.1 | 2.15 | 3.19 |
| 83.74 - 85.91: well banded OJ with about 20% total sulfides as diss, blebs and bands. Chlorite -biotite bands, blebs and diss | | | | | | | | | | | |
| <<Min: 83.74 - 85.09 5% Min: Sphalerite>> | | | 85.09 | 85.91 | 0.82 | D00004415 | 0.305 | 8 | 0.08 | 0.26 | 0.42 |
| <<Min: 83.74 - 85.09 1% Min: Galena>> | | | | | | | | | | | |
| <<Min: 83.74 - 85.09 1% Min: Chalcopyrite>> | | | | | | | | | | | |
| <<Min: 83.74 - 85.91 5% Min: Pyrite>> | | | | | | | | | | | |
| <<Min: 85.09 - 85.91 1% Min: Sphalerite>> | | | | | | | | | | | |

| From (m) | To (m) | Rocktype & Description | | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <<Min: 85.09 - 85.91 0.5% Min: Chalcopyrite>> | | | | | | | | | | | | |
| <<Alt: 83.74 - 86 Weak Muscovite>> bleaching and fine muscovite | | | | | | | | | | | | |
| <<Alt: 83.74 - 86 Moderate Garnet>> | | | | | | | | | | | | |
| <<Alt: 83.74 - 86.83 Moderate-Strong Chlorite>> | | | | | | | | | | | | |
| **85.91** | **86.50 OD** | **Brecciated sulphides** | **CG** | 85.91 | 86.50 | 0.59 | D00004416 | 1.6 | 164 | 0.62 | 5.3 | 5.94 |
| 85.91 - 86.5: breccia with OJ ,qtz (-leucite) clasts in qtz-sulfide-chlorite matrix. | | | | | | | | | | | | |
| <<Min: 85.91 - 86.5 10% Min: Sphalerite>> | | | | | | | | | | | | |
| <<Min: 85.91 - 86.5 10% Min: Pyrrhotite>> | | | | | | | | | | | | |
| <<Min: 85.91 - 86.5 3% Min: Galena>> | | | | | | | | | | | | |
| <<Min: 85.91 - 86.5 5% Min: Chalcopyrite>> | | | | | | | | | | | | |
| <<Alt: 85.91 - 87.58 Weak-Moderate Calcite>> calcite clasts, diss and filling. | | | | | | | | | | | | |
| **86.50** | **87.75 OF** | **Pyrrhotite rich sulphides** | **CG** | 86.50 | 87.75 | 1.25 | D00004417 | 2.83 | 179 | 0.42 | 5.84 | 8.2 |
| 86.5 - 87.75: 86.69-87.23: pyrrhotite approx 40%, section brx with OJ - qtz clasts (qtz-chl-sulfide matrix) | | | | | | | | | | | | |
| <<Min: 86.5 - 87.75 20% Min: Sphalerite>> | | | | | | | | | | | | |
| <<Min: 86.5 - 87.75 3% Min: Pyrite>> | | | | | | | | | | | | |
| <<Min: 86.5 - 87.75 40% Min: Pyrrhotite>> | | | | | | | | | | | | |
| <<Min: 86.5 - 87.75 5% Min: Galena>> | | | | | | | | | | | | |
| <<Min: 86.5 - 87.75 3% Min: Chalcopyrite>> | | | | | | | | | | | | |
| <<Alt: 86.6 - 88.8 Moderate Cordierite>> | | | | | | | | | | | | |
| <<Alt: 86.83 - 88.8 Weak-Moderate Chlorite>> blebs, repacements, rare bands | | | | | | | | | | | | |
| <<Alt: 87.58 - 88.28 Trace Calcite>> | | | | | | | | | | | | |
| **87.75** | **88.80 OF** | **Pyrrhotite rich sulphides** | **CG** | 87.75 | 88.80 | 1.05 | D00004418 | 1.34 | 64.2 | 0.22 | 2.47 | 5.9 |
| 87.75 - 88.8: bands and blebs of sulfides | | | | | | | | | | | | |
| <<Min: 87.75 - 88 1% Min: Chalcopyrite>> | | | | | | | | | | | | |
| <<Min: 87.75 - 88.8 10% Min: Sphalerite>> | | | | | | | | | | | | |
| <<Min: 87.75 - 88.8 5% Min: Pyrite>> | | | | | | | | | | | | |
| <<Min: 87.75 - 88.8 5% Min: Pyrrhotite>> | | | | | | | | | | | | |
| <<Min: 87.75 - 88.8 3% Min: Galena>> | | | | | | | | | | | | |
| <<Min: 88 - 88.8 0.5% Min: Chalcopyrite>> | | | | | | | | | | | | |
| <<Alt: 88.28 - 88.8 Moderate Calcite>> diss, in matrix and as replacement | | | | | | | | | | | | |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **88.80** | **90.00** | **RHY undifferentiated rhyolite MCG** | 88.80 | 89.16 | 0.36 | D00004419 | 0.121 | 7.8 | 0.01 | 0.22 | 0.17 |
| 88.8 - 90: sections chlorite -biotite altered, 89.16-89.30: banded sulfides. Locally siliceous. | | | | | | | | | | | |
| <<Min: 88.8 - 89.16 1% Min: Pyrite>> | | | 89.16 | 90.00 | 0.84 | D00004421 | 0.796 | 57.8 | 0.11 | 2.04 | 2.18 |
| <<Min: 89.16 - 89.3 10% Min: Sphalerite>> | | | | | | | | | | | |
| <<Min: 89.16 - 89.3 20% Min: Pyrite>> | | | | | | | | | | | |
| <<Min: 89.16 - 89.3 5% Min: Pyrrhotite>> | | | | | | | | | | | |
| <<Min: 89.16 - 89.3 5% Min: Galena>> | | | | | | | | | | | |
| <<Min: 89.3 - 90 3% Min: Pyrite>> | | | | | | | | | | | |
| <<Min: 89.3 - 90 0.1% Min: Chalcopyrite>> | | | | | | | | | | | |
| <<Alt: 88.8 - 89.16 Weak Calcite>> | | | | | | | | | | | |
| <<Alt: 88.8 - 90 Moderate-Strong Silicification>> | | | | | | | | | | | |
| <<Alt: 88.8 - 90 Weak Muscovite>> bleached and silicified | | | | | | | | | | | |
| <<Alt: 88.8 - 90 Weak Chlorite>> | | | | | | | | | | | |
| <<Alt: 88.8 - 90 Weak Biotite>> minor non bleached - silicified sections. | | | | | | | | | | | |
| <<Alt: 89.16 - 89.5 Weak-Moderate Calcite>> in sufide band and as calcareous bands in RHYva. | | | | | | | | | | | |
| <<Alt: 89.5 - 90.53 Trace Calcite>> | | | | | | | | | | | |
| <<Struc: 88.8 - 89.25 Weak Fault>> broken core | | | | | | | | | | | |
| <<Struc: 89.5 - 90 Weak-Moderate Fault>> broken core | | | | | | | | | | | |
| **90.00** | **90.53** | **OF Pyrrhotite rich sulphides CG** | 90.00 | 90.53 | 0.53 | D00004422 | 2.96 | 150 | 0.24 | 4.86 | 11.3 |
| 90 - 90.53: Graditional from OF at 90.00m to OL at 90.53m. 90.30-90.53: Buckshot pyrite in pyrrhotite - sphalerite groundmass. | | | | | | | | | | | |
| <<Min: 90 - 90.25 0.5% Min: Chalcopyrite>> | | | | | | | | | | | |
| <<Min: 90 - 90.53 10% Min: Sphalerite>> | | | | | | | | | | | |
| <<Min: 90 - 90.53 15% Min: Pyrite>> | | | | | | | | | | | |
| <<Min: 90 - 90.53 30% Min: Pyrrhotite>> | | | | | | | | | | | |
| <<Min: 90 - 90.53 3% Min: Galena>> | | | | | | | | | | | |
| <<Alt: 90 - 90.53 Weak-Moderate Chlorite>> | | | | | | | | | | | |
| <<Alt: 90 - 90.53 Trace Biotite>> | | | | | | | | | | | |
| **90.53** | **91.58** | **RHY undifferentiated rhyolite** | 90.53 | 91.42 | 0.89 | D00004423 | 0.069 | 3 | 0.01 | 0.07 | 0.06 |
| 90.53 - 91.58: 91.50-91.58: Med-coarse grained sulfide band at contact with PEL. Rhy has qtz clasts and blebby appearance. | | | | | | | | | | | |
| <<Min: 90.53 - 90.73 3% Min: Pyrrhotite>> | | | 91.42 | 92.68 | 1.26 | D00004424 | 0.192 | 35.2 | 0.03 | 1.39 | 2.2 |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | <<Min: 90.73 - 91.42 0.1% Min: Pyrite>> | | | | | | | | | |
| | | <<Min: 91.42 - 91.58 5% Min: Sphalerite>> | | | | | | | | | |
| | | <<Min: 91.42 - 91.58 5% Min: Pyrite>> | | | | | | | | | |
| | | <<Min: 91.42 - 91.58 20% Min: Pyrrhotite>> | | | | | | | | | |
| | | <<Alt: 90.53 - 90.7 Moderate-Strong Calcite>> calcareous band | | | | | | | | | |
| | | <<Alt: 90.53 - 90.73 Moderate-Strong Biotite>> | | | | | | | | | |
| | | <<Alt: 90.7 - 91.5 Trace Calcite>> | | | | | | | | | |
| | | <<Alt: 90.73 - 91.43 Moderate-Strong Muscovite>> sericite-muscovite and bleached | | | | | | | | | |
| | | <<Alt: 90.73 - 91.43 Trace Chlorite>> | | | | | | | | | |
| | | <<Alt: 91.43 - 95.6 Weak-Moderate Chlorite>> patchy | | | | | | | | | |
| | | <<Alt: 91.43 - 97.96 Weak Muscovite>> local bleaching and sericite on fractures. | | | | | | | | | |
| | | <<Alt: 91.5 - 92.5 Moderate Calcite>> | | | | | | | | | |
| | | <<Struc: 90.73 - 92.74 Weak-Moderate Fault>> broken and crushed core, minor gouge | | | | | | | | | |
| **91.58** | **92.94** | **PEL** **Equigranular biotite + calcite +/- quartz rock** | 92.68 | 94.10 | 1.42 | D00004425 | 0.018 | 8.6 | -0.01 | 0.39 | 0.79 |
| | | 91.58 - 92.94: gougy, 92.45-92.65: minor sulfides, bleaching around Qtz-tourmaline vein. | | | | | | | | | |
| | | <<Min: 91.58 - 92.45 0.5% Min: Pyrite>> | | | | | | | | | |
| | | <<Min: 92.45 - 95.6 0.1% Min: Sphalerite>> in qtz-chl-cal veins and selveges | | | | | | | | | |
| | | <<Min: 92.45 - 95.6 1% Min: Pyrite>> plus trace diss py in RHY | | | | | | | | | |
| | | <<Min: 92.45 - 95.6 0.1% Min: Galena>> in qtz-chl-cal veins and selveges | | | | | | | | | |
| | | <<Alt: 92.5 - 95.6 Weak-Moderate Calcite>> bands, diss, blebs and veinlets | | | | | | | | | |
| | | <<Struc: 92.8 - 95.5 Moderate-Strong dominant foliation>> | | | | | | | | | |
| **92.94** | **95.60** | **RHYvx** **Quartz and/or feldspar crystal tuff** | 94.10 | 95.60 | 1.50 | D00004426 | 0.014 | 12.3 | 0.01 | 0.42 | 0.7 |
| | | 92.94 - 95.6: contains PLE sections as wisps and up to 20cm wide. | | | | | | | | | |
| | | <<Vein: 93.17 - 96.56 5% Quartz 30 deg. >> qtz veins, mostly at low angle | | | | | | | | | |
| | | <<Struc: 93.9 - 94.15 Moderate-Strong Vein>> | | | | | | | | | |
| | | <<Struc: 95.5 - 95.65 Moderate-Strong Contact>> | | | | | | | | | |
| **95.60** | **97.96** | **PEL** **Equigranular biotite + calcite +/- quartz rock** | 95.60 | 97.00 | 1.40 | D00004427 | 0.011 | -0.3 | -0.01 | -0.01 | 0.08 |
| | | 95.6 - 97.96: local ash and bleached sections around qtz veining. | | | | | | | | | |
| | | <<Min: 95.6 - 96.48 0.5% Min: Pyrite>> | | | | | | | | | |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Min: 96.38 - 96.46 3% Min: Sphalerite>> qtz vein

<<Min: 96.38 - 96.46 5% Min: Pyrite>> qtz vein

<<Min: 96.38 - 96.48 1% Min: Galena>> qtz vein

<<Min: 96.48 - 97.96 0.1% Min: Pyrite>>

<<Alt: 95.6 - 97.96 Weak-Moderate Calcite>>

<<Vein: 96.38 - 96.46 100% Quartz-Sulphide 50 deg. >> qtz vein - diss sulfides, 15cm bleached envelope

**97.96 103.37 RHYvx Quartz and/or feldspar crystal tuff**

97.96 - 103.37: minor PEL bands and wisps, minor qtz-biot-sulfide bands

<<Min: 97.96 - 98.88 0.1% Min: Sphalerite>> rare diss and in rare veinlets

<<Min: 97.96 - 98.88 1% Min: Pyrite>> rare diss and in rare veinlets

<<Min: 98.88 - 100.75 1% Min: Sphalerite>> in qtz-chl-cal veins and selveges

<<Min: 98.88 - 100.75 5% Min: Pyrite>> in qtz-chl-cal veins and selveges

<<Min: 98.88 - 100.75 3% Min: Pyrrhotite>>

<<Min: 98.88 - 100.75 0.1% Min: Galena>> in qtz-chl-cal veins and selveges

<<Min: 100.75 - 103.37 1% Min: Pyrite>>

<<Min: 103 - 108 2% Min: Pyrrhotite>>

<<Alt: 97.96 - 103.37 Weak Calcite>>

<<Vein: 98.28 - 98.31 100% Quartz-Tourmaline 40 deg. >> 10cm bleached siliceous envelope

<<Vein: 98.88 - 101.12 5% Quartz-Sulphide 65 deg. >> mm- <4 cm bands of diss sulfides with qtz +/- calcite

<<Struc: 100 - 100.5 Moderate dominant foliation>>

<<Struc: 100.69 - 100.75 Moderate-Strong Foliation>> foliaform qtz-sulfide vein

**103.37 104.46 PEL Equigranular biotite + calcite +/- quartz rock**

<<Alt: 103.37 - 104.46 Moderate-Strong Calcite>>

**104.46 108.28 RHYvx Quartz and/or feldspar crystal tuff**

104.46 - 108.28: minor PEL bands and wisps, minor qtz-biot-sulfide bands

<<Min: 104.46 - 108.28 1% Min: Pyrite>> minor veinlets and as diss

<<Alt: 104.46 - 108.28 Weak-Moderate Calcite>>

<<Vein: 106.55 - 107 10% Quartz 55 deg. >>

<<Struc: 104.46 - 105 Moderate-Strong dominant foliation>>

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Struc: 106.4 - 106.65 Moderate-Strong dominant foliation>>

<<Struc: 107.9 - 108.1 Weak-Moderate Fault>> broken and crushed core

**108.28 118.30 RHYcf Feldspar & feldspar quartz porphyry**

108.28 - 118.3: feldspar and qtz eye porphyritic. Same as RHYcf unit in K16-393, massive and fairly homogeneous.

<<Min: 108.28 - 118.3 0.5% Min: Sphalerite>> diss on fractures and thin diffuse qtz-sulfide veinlets

<<Min: 108.28 - 118.3 1% Min: Pyrite>>

<<Min: 108.28 - 118.3 0.01% Min: Pyrrhotite>>

<<Alt: 108.28 - 118.3 Weak Calcite>>

<<Alt: 114 - 129.53 Weak-Moderate Muscovite>> fine white musc on folia and sericite on fractures. Musc also in qtz vein envelopes

<<Vein: 114.15 - 114.32 70% Quartz 60 deg. >> qtz, minor sulfides on margins

<<Struc: 108.34 - 113.05 Weak-Moderate Fault>> broken and crushed core

**118.30 128.48 RHYvx Quartz and/or feldspar crystal tuff**

118.3 - 128.48: Minor PEL zones

<<Min: 118.3 - 119.8 0.1% Min: Sphalerite>>

<<Min: 118.3 - 119.8 3% Min: Pyrite>>

<<Min: 118.3 - 119.8 1% Min: Pyrrhotite>>

<<Min: 119.8 - 127.7 1% Min: Pyrite>>

<<Min: 119.8 - 127.8 0.01% Min: Sphalerite>>

<<Min: 119.8 - 127.8 0.01% Min: Galena>>

<<Min: 127.8 - 127.85 10% Min: Sphalerite>>

<<Min: 127.8 - 127.85 5% Min: Galena>>

<<Min: 127.8 - 128.48 3% Min: Pyrite>>

<<Alt: 118.3 - 118.8 Moderate Calcite>>

<<Alt: 118.8 - 129.53 Weak Calcite>>

<<Alt: 126.24 - 128.48 Weak-Moderate Chlorite>>

<<Vein: 120.1 - 120.3 10% Quartz-Tourmaline 30 deg. >> bleached musc envelope

<<Struc: 121 - 123.2 Moderate Fault>> broken and crushed core, missing core

<<Struc: 124.2 - 128 Moderate Fault>> broken and crushed core, missing core, sericite & clay on foliation and fractures

**128.48 129.00 RHYva Coarse grained to ash tuff**

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Min: 128.48 - 129.53 0.1% Min: Sphalerite>>

<<Min: 128.48 - 129.53 3% Min: Pyrite>>

<<Alt: 128.48 - 129.8 Trace Chlorite>>

**129.00 129.53 RHYc Rhyolite coherant volcanics**

<<Struc: 129.2 - 136.5 Weak Fault>> fractured with sericte - clay on fractures, local thn (cm) gouge zones

**129.53 132.81 PEL Equigranular biotite + calcite +/- quartz rock**

129.53 - 132.81: bleaching and/or ash rich over 20cm at upper contact.

<<Min: 129.53 - 132.81 0.5% Min: Pyrrhotite>> and bleb in qtz veinlet

<<Alt: 129.53 - 132.81 Moderate-Strong Calcite>>

**132.81 135.04 RHYvx Quartz and/or feldspar crystal tuff**

<<Min: 132.81 - 136.53 0.1% Min: Sphalerite>>

<<Min: 132.81 - 136.53 0.5% Min: Pyrrhotite>>

<<Alt: 132.81 - 135.04 Weak Calcite>>

<<Vein: 134.82 - 135.08 40% Quartz>> irregular qtz veining

<<Struc: 134.2 - 145.35 Moderate Fault>> gougy schist

**135.04 136.07 PEL Equigranular biotite + calcite +/- quartz rock**

135.04 - 136.07: pel and ash

<<Alt: 135.05 - 136.07 Moderate-Strong Calcite>>

**136.07 136.53 RHYvx Quartz and/or feldspar crystal tuff**

136.07 - 136.53: ashy

<<Alt: 136.07 - 136.53 Weak Calcite>>

<<Alt: 136.07 - 139.06 Weak Muscovite>>

<<Alt: 136.07 - 139.34 Weak Chlorite>>

**136.53 138.94 PEL Equigranular biotite + calcite +/- quartz rock**

136.53 - 138.94: 138.30-138.6: RHYvx-QE, Pelitic and weakly chlorite altered.

<<Min: 136.53 - 139.2 1% Min: Pyrrhotite>>

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Min: 136.53 - 139.26 0.5% Min: Pyrite>>

<<Alt: 136.53 - 138.94 Moderate Calcite>>

<<Vein: 136.57 - 137.08 95% Quartz-Carbonate>> mostly qtz vein

<<Vein: 137.08 - 139.56 10% Quartz-Carbonate>> mostly qtz

<<Struc: 137.1 - 137.8 Moderate Fault>> broken and crushed core, minor gouge

**138.94 139.26 RHYvx Quartz and/or feldspar crystal tuff**

<<Alt: 138.94 - 142.45 Trace Calcite>>

<<Alt: 139.06 - 143.3 Moderate Muscovite>> envelope around qtz-tour vein

**139.26 143.30 RHYva Coarse grained to ash tuff**

139.26 - 143.3: Ash-Pel unit cut by qtz-tourmaline vein 141.15-142.68m with a fine grained muscovite envelope (139.26-145.3m). Might all be altered bleached PEL and not a RHYva at all.

<<Min: 139.26 - 140.5 5% Min: Pyrite>>

<<Min: 140.5 - 142.75 0.1% Min: Pyrite>>

<<Alt: 142.45 - 142.8 Moderate Calcite>>

<<Alt: 142.8 - 150.25 Trace Calcite>>

<<Vein: 141.18 - 142.76 Quartz-Tourmaline>> mostly white bull qtz

<<Struc: 140.6 - 141.2 Weak-Moderate Fault>> broken, minor gouge

**143.30 143.95 PEL Equigranular biotite + calcite +/- quartz rock**

<<Min: 143.85 - 151.3 3% Min: Pyrrhotite>>

<<Min: 143.9 - 146.18 3% Min: Pyrite>>

<<Alt: 143.5 - 146.19 Weak Chlorite>>

<<Alt: 143.88 - 147.87 Weak Muscovite>>

<<Struc: 143.9 - 148.07 Moderate Fault>> broken, minor gouge

**143.95 148.93 RHYvl Lapilli tuff**

<<Min: 146.18 - 147.44 3% Min: Pyrite>>

<<Min: 147.44 - 150.57 1% Min: Pyrite>>

<<Alt: 146.19 - 153.42 Weak-Moderate Chlorite>>

<<Alt: 147.87 - 160.57 Moderate Muscovite>> locally Mu alteration has been obliterated by later silicifiction in Qtz-tour vein envelopes.

<<Struc: 146.33 - 148 Weak Fault>> four 2-10cm gouge zones

| From (m) | To (m) | Rocktype & Description |
|---|---|---|
| **148.93** | **160.57** | **RHYva Coarse grained to ash tuff** |

| From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|
| 159.10 | 160.57 | 1.47 | D00004428 | 0.024 | 1.9 | 0.02 | 0.03 | 0.02 |

148.93 - 160.57: Mostly RHYva, OP qtz-tour-musc bleaching alteration due to cross cutting QTz-Tour veins obscures original textures. Original chl-biot-qtz alt 153.40-154.12m does the same.

<<Min: 150.57 - 151 5% Min: Pyrite>> QT vein envelope

<<Min: 151 - 155.26 1% Min: Pyrite>> rare blebs

<<Min: 152.3 - 158 3% Min: Pyrrhotite>>

<<Min: 155.26 - 157 3% Min: Pyrite>>

<<Min: 156.4 - 157.15 0.1% Min: Sphalerite>>

<<Min: 156.4 - 157.15 0.1% Min: Galena>>

<<Min: 157 - 160.57 1% Min: Pyrite>>

<<Min: 157.55 - 157.65 0.1% Min: Sphalerite>>

<<Min: 157.55 - 157.65 0.1% Min: Galena>>

<<Min: 159 - 159.24 0.5% Min: Sphalerite>>

<<Alt: 150.1 - 151.3 Moderate-Strong Silicification>> envelope to qtz-tour vein

<<Alt: 150.25 - 153.36 Weak Calcite>>

<<Alt: 153.2 - 154.5 Moderate Biotite>> in bands

<<Alt: 153.36 - 154.15 Weak-Moderate Calcite>>

<<Alt: 153.42 - 154.36 Moderate-Strong Chlorite>>

<<Alt: 154.15 - 158.6 Trace Calcite>>

<<Alt: 154.5 - 156.25 Weak Biotite>>

<<Alt: 156.85 - 158.6 Moderate Silicification>> envelope to qtz-tour vein

<<Alt: 158 - 159.6 Weak Chlorite>>

<<Alt: 158.6 - 161.25 Weak-Moderate Calcite>>

<<Alt: 160.27 - 161.36 Moderate Biotite>>

<<Vein: 150.57 - 151.3 20% Quartz-Tourmaline>>

<<Vein: 153.48 - 154.2 25% Quartz-Carbonate 70 deg. >> banded qtz and lesser calcite

<<Vein: 157.33 - 157.36 75% Quartz-Tourmaline 20 deg. >>

<<Struc: 149.3 - 149.6 Weak-Moderate Fault>> broken, minor gouge

<<Struc: 151.4 - 152 Moderate dominant foliation>>

<<Struc: 152 - 152.04 Moderate Fault>> fault gouge, crosscuts foliation

<<Struc: 154.3 - 156.64 Weak Fault>> 4 intense muscovite altered zones avg 10cm

<<Struc: 157 - 157.75 Moderate dominant foliation>>

<<Struc: 157.28 - 157.56 Moderate Vein>> qtz - tour vein

| From (m) | To (m) | | Rocktype & Description | | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **160.57** | **161.16** | **OJ** | **Heavilly disseminated sulphides and/or stringer style mineralization in proximal altered rock** | **MCG** | 160.57 | 161.16 | 0.59 | D00004429 | 0.17 | 9.4 | 0.1 | 0.1 | 3.61 |
| 160.57 - 161.16: sharp contacts defined by cordierite - biotite-chlorite-tourmaline alteration and increase in sulfides | | | | | | | | | | | | | |
| <<Min: 160.57 - 161.16 3% Min: Sphalerite>> | | | | | | | | | | | | | |
| <<Min: 160.57 - 161.16 3% Min: Pyrite>> | | | | | | | | | | | | | |
| <<Min: 160.57 - 161.16 5% Min: Pyrrhotite>> | | | | | | | | | | | | | |
| <<Alt: 160.57 - 161.16 Weak Chlorite>> | | | | | | | | | | | | | |
| <<Alt: 160.57 - 161.16 Strong Cordierite>> | | | | | | | | | | | | | |
| **161.16** | **162.01** | **RHY** | **undifferentiated rhyolite** | **light grey** | 161.16 | 162.01 | 0.85 | D00004432 | -0.005 | 1.2 | 0.04 | 0.01 | 0.04 |
| <<Min: 161.16 - 162.01 1% Min: Pyrite>> | | | | | | | | | | | | | |
| <<Min: 161.16 - 162.01 3% Min: Pyrrhotite>> | | | | | | | | | | | | | |
| <<Alt: 161.16 - 162.01 Weak-Moderate Chlorite>> | | | | | | | | | | | | | |
| <<Alt: 161.29 - 164.72 Weak Calcite>> | | | | | | | | | | | | | |
| <<Struc: 161.29 - 161.8 Moderate dominant foliation>> | | | | | | | | | | | | | |
| **162.01** | **164.72** | **OJ** | **Heavilly disseminated sulphides and/or stringer style mineralization in proximal altered rock** | **MCG** | 162.01 | 162.46 | 0.45 | D00004433 | 0.015 | 7.8 | 0.15 | 0.09 | 11.9 |
| 162.01 - 164.72: sharp contacts defined by cordierite - biotite-chlorite-tourmaline-garnet alteration and increase in sulfides | | | | | | | | | | | | | |
| <<Min: 162.01 - 162.46 10% Min: Sphalerite>> | | | | | 162.46 | 163.70 | 1.24 | D00004434 | 0.013 | 6.8 | 0.05 | 0.17 | 2.14 |
| <<Min: 162.01 - 162.46 20% Min: Pyrrhotite>> | | | | | 163.70 | 164.72 | 1.02 | D00004435 | 0.01 | 7.2 | 0.1 | 0.38 | 2.8 |
| <<Min: 162.46 - 163.7 1% Min: Sphalerite>> | | | | | | | | | | | | | |
| <<Min: 162.46 - 163.7 5% Min: Pyrrhotite>> | | | | | | | | | | | | | |
| <<Min: 162.46 - 163.7 0.1% Min: Chalcopyrite>> | | | | | | | | | | | | | |
| <<Min: 163.7 - 164.72 5% Min: Sphalerite>> | | | | | | | | | | | | | |
| <<Min: 163.7 - 167.72 1% Min: Pyrite>> | | | | | | | | | | | | | |
| <<Min: 163.7 - 167.72 10% Min: Pyrrhotite>> | | | | | | | | | | | | | |
| <<Min: 163.7 - 167.72 0.1% Min: Galena>> | | | | | | | | | | | | | |
| <<Min: 163.7 - 167.72 1% Min: Chalcopyrite>> | | | | | | | | | | | | | |
| <<Alt: 162.01 - 164.72 Weak-Moderate Chlorite>> diss, blebs and rare bands | | | | | | | | | | | | | |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Alt: 162.01 - 164.72 Moderate Biotite>>

<<Alt: 162.21 - 164.72 Trace Tourmaline>>

<<Alt: 162.21 - 164.72 Moderate-Strong Cordierite>>

<<Alt: 163 - 164.05 Weak-Moderate Garnet>>

<<Vein: 163.66 - 166.65 5% Quartz-Chlorite>>

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **164.72 167.75 PEL** **Equigranular biotite + calcite +/- quartz rock** | | | 164.72 | 166.20 | 1.48 | D00004436 | -0.005 | -0.3 | -0.01 | -0.01 | 0.08 |

164.72 - 167.75: crossed by minor qtz-calcite-chlorite veins

<<Min: 167.72 - 167.75 3% Min: Pyrrhotite>>

<<Alt: 164.72 - 167.8 Moderate-Strong Calcite>> and bands

<<Alt: 164.95 - 171.77 Weak Chlorite>> commonly in calcite veins-bands

<<Struc: 166.8 - 167.3 Moderate dominant foliation>>

<<Struc: 167.46 - 167.7 Trace Fault>> fractures with clay

**167.75 170.13 PEL** **Equigranular biotite + calcite +/- quartz rock**

167.75 - 170.13: Altered PEL, Chlorite -calcite bands and blebs, calicte angular blebs 1-2mm (replacing cordierite?) containing chlorite & pyrite. Diss py and pyrrhotite. No vis sp or gl.

<<Min: 167.75 - 171.87 3% Min: Pyrite>>

<<Min: 167.75 - 171.87 5% Min: Pyrrhotite>>

<<Alt: 167.75 - 170.13 Weak-Moderate Tourmaline>>

<<Alt: 167.8 - 173.7 Weak-Moderate Calcite>>

<<Struc: 167.9 - 169.8 Moderate-Strong dominant foliation>> chlorite banding

**170.13 187.36 RHYva** **Coarse grained to ash tuff**

170.13 - 187.36: Variably bleached - muscovite altered PEL and RHYva. Brown - maroon biotite in wispy bands. Locally finer 'ash' bands and rare sections with coarser qtz blebs and discontinuous bands (likely lapilli). Unit cross cut by several intensely bleached muscovite rich zones. Alteration looks similar to that of a hornfels zone adjacent to granite body.

<<Min: 171.87 - 187.36 3% Min: Pyrite>> increases downhole with increase in musc alt

<<Min: 171.87 - 187.36 3% Min: Pyrrhotite>> decreases downhole

<<Alt: 171 - 174 Weak Muscovite>>

<<Alt: 173.7 - 179 Weak Calcite>> diss, rare veinlets

<<Alt: 174 - 181.74 Moderate Muscovite>>

<<Alt: 179 - 187.36 Weak-Moderate Calcite>>

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

<<Alt: 181.74 - 191.5 Moderate-Strong Muscovite>> increasing down section and more intense around local fault zones

<<Vein: 176.45 - 177.03 40% Quartz-Albite>>

<<Vein: 180.87 - 181.2 100% Quartz-Tourmaline>>

<<Struc: 173 - 174 Moderate-Strong dominant foliation>>

<<Struc: 174.9 - 175 Weak Fault>> broken, minor gouge

<<Struc: 176 - 176.1 Weak Fault>> broken, minor gouge

<<Struc: 177.29 - 177.4 Trace Fault>> broken, minor gouge

<<Struc: 178.1 - 178.25 Trace Fault>> broken, minor gouge

<<Struc: 180 - 180.3 Moderate-Strong dominant foliation>>

<<Struc: 180.85 - 181.1 Moderate Vein>> irregular qtz-tour vein

<<Struc: 182 - 182.5 Moderate-Strong dominant foliation>>

<<Struc: 183 - 184.6 Moderate Fault>> fault - shear zone, abundant gouge zones

<<Struc: 184.6 - 187.6 Weak Fault>> broken and minor crushed core

<<Struc: 185.5 - 186.15 Moderate-Strong dominant foliation>>

<<Struc: 187 - 188.1 Weak-Moderate Fault>> broken core, minor shearing planes with fine breccia

## 187.36 188.10 RHYc Rhyolite coherant volcanics

187.36 - 188.1: silic bands, muscovite rich folia.

<<Min: 187.36 - 188.2 3% Min: Pyrite>>

## 188.10 191.10 RHYva Coarse grained to ash tuff

188.1 - 191.1: strongly sheared and faulted; fault gouge & crushed core and muscovite - sericite rich gouge and tectonic breccia zones. Minor remnant chlorite bands and blebs. Tourmaline porphyroblasts in minor siliceous zone. Lots of missing core.

<<Min: 188.2 - 190 3% Min: Pyrrhotite>>

<<Min: 190 - 193.1 1% Min: Pyrite>>

<<Alt: 189 - 189.76 Weak Tourmaline>>

<<Alt: 191 - 194.15 Weak Chlorite>>

<<Struc: 188.1 - 196.7 Strong Fault>> fault - shear zone, abundant gouge zones, missing core

## 191.10 192.00 SEDc calcareous Sediment

191.1 - 192: 0.5-1cm banded calcite with chlorite - clay - muscovite-sericite folia

<<Alt: 191.1 - 195.5 Moderate Calcite>> patchy; CA veins and fault breccia

<<Alt: 191.5 - 208.1 Moderate Muscovite>> sericite - mucovite with clay in fault - shear zones

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **192.00** | **194.15** | **FLZ** **Fault Zone**<br>192 - 194.15: Fault zone with gouge, crushed schist and tectonic breccia clasts of PEL, rare dark grey carbonaceous mudstone clasts and chlorite altered RHY(?), calcite vein clasts, chlorite schist with garnet and strong musc-sericite-clay altered rock of unknown protolith<br><<Min: 192 - 193.1 0.1% Min: Pyrrhotite>><br><<Min: 193.1 - 195.67 0.1% Min: Pyrite>> | | | | | | | | | |
| **194.15** | **196.55** | **SEDc** **calcareous Sediment**<br>194.15 - 196.55: Dark grey carbonaceous and moderately siliceous, variably brecciated, includes white-brown banded calcareous rich sections, (hence SEDc), local garnets. Unit is interpreted to be a brecciated silicified carbonaceous SEDc could also be a calcareous mudstone. Chlorite-pyrite on shears and interstitial pyrrhotite in more competent brecciated - silicified sections (195.77-196.33m).<br><<Min: 195.67 - 196.55 3% Min: Pyrite>><br><<Min: 195.67 - 196.55 5% Min: Pyrrhotite>><br><<Alt: 194.15 - 195 Weak Garnet>><br><<Alt: 194.15 - 196.55 Trace Tourmaline>><br><<Alt: 194.15 - 196.55 Weak-Moderate Chlorite>><br><<Alt: 194.15 - 196.55 Weak-Moderate Biotite>><br><<Alt: 196.4 - 197.87 Weak Calcite>><br><<Struc: 196.25 - 208.25 Strong Fault>> fault - shear zone, abundant gouge zones, missing core | 195.70 | 196.33 | 0.63 | D00004437 | -0.005 | 1.1 | -0.01 | 0.01 | 0.05 |
| **196.55** | **200.80** | **FLZ** **Fault Zone**<br>196.55 - 200.8: Fault zone, lots of missing core, broken and crushed core, minor gouge. Clasts of vairablly chl-muscovite-sericite altered RHYva and/or bleached PEL, qtz vein clasts, with chlorite bands and blebs on fractures and shear planes.<br><<Min: 196.55 - 210 1% Min: Pyrite>> occasional blebs<br><<Min: 198 - 202.75 1% Min: Pyrrhotite>> occasional blebs<br><<Alt: 196.55 - 201.15 Weak Chlorite>> | | | | | | | | | |
| **200.80** | **201.15** | **RHYvx** **Quartz and/or feldspar crystal tuff**<br>200.8 - 201.15: 33cm core recovered in interval. Lower contact gradational over 3 cm. | | | | | | | | | |
| **201.15** | **203.10** | **PEL** **Equigranular biotite + calcite +/- quartz rock**<br>201.15 - 203.1: PEL cut by foliaform qtz-calcite veins with chlorite envelope. Also more massive med grained equigranular qtz-chl-biotite 'PEL'. Approx 55cm core recovered in interval.<br><<Alt: 201.15 - 205.6 Moderate Chlorite>> | | | | | | | | | |

| From (m) | To (m) | Rocktype & Description | From (m) | To (m) | Width | Sample | Au ppm | Ag ppm | Cu % | Pb % | Zn % |
|---|---|---|---|---|---|---|---|---|---|---|---|

**203.10 206.40 RHYva Coarse grained to ash tuff**

203.1 - 206.4: Fault zone with lots of missing core.Isolated setions of altered, faulted-sheared,brecciated interbanded RHYva-PEL . Variably chloritized - biotie altered, minor silicifcation near lower contact, Between 204.00m - 205.50m; 37cm section of argillic alteration with remnant brown biotite giving a mottled appearance.Carbonaceous wisps at 204.00-204.20m(?). Calcite banding and wisps (SEDc like?) between 205.50 -206.40m.

<<Vein: 205.2 - 205.6 5% Quartz-Carbonate 50 deg. >>

**206.40 209.15 MDSt Rhyolite tuff dominant mudstone**

206.4 - 209.15: core rubble. Weak chlorite.

<<Vein: 208.2 - 208.75 100% Quartz>>

**209.15 210.00 RHYvl Lapilli tuff**

209.15 - 210: BIppo, sheared biotite - chlorite altered, minor garnet. Wisps carbonaceous material.

<<Alt: 209.15 - 210 Weak Garnet>>

<<Alt: 209.15 - 210 Weak Chlorite>>

<<Alt: 209.15 - 210 Moderate-Strong Biotite>>

<<Struc: 209.7 - 210 Moderate-Strong dominant foliation>>

**End of Hole @ 210**