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GeoSpark Logger ~ Drill Log

Project: KZK **Hole Number:** K16-415

Prospect:	Tarawera	Hole Type:	DD	Survey Type:	PLND-LiDAR	Logged By:	Oscar Nielsen
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Oscar Nielsen	Date Logging Start:	8/20/2016
UTM Easting	413575	Core Size:	HQ3	Azimuth:	194.8	Date Logging Complete:	9/5/2016
UTM Northing:	6815210	Casing Pulled?:	Yes	Dip:	-59.9	Drill Company:	New Age
UTM Elev. (m):	1712	Casing Depth (m):	4.5	Length (m):	854.5	Drill Rig:	Zinex A5
Local Easting:		Stored?:	Yes	Claims Title		Drill Started:	8/19/2016
Local Northing:		Cemented?:	Yes	Core Storage Loc.:	KZK Camp	Drill Completed:	9/4/2016
Local Elev. (m):				Hole Completed?:	Completed	Purpose:	Exploration
Comments:						Parent Hole:	

K16-415 was designed to test a shallow geophysical anomaly in the Rhyolite Peak area and to continue into the underlying stratigraphy.
The likely source of the geophysical anomaly was a 0.52 m zone of massive sulphide interval containing pyrrhotite, pyrite, chalcopyrite, and sphalerite with tourmaline porphyroblasts, intersected from 46.45 m to 46.97 m. The mineralized zone lies between an intrusive rhyolite body/strongly silicified ash tuff above it and a siliceous coherent flow below.
The stratigraphy below the massive sulphide comprises amygdaloidal rhyolite bodies from 82-95 m interlayered with and underlain by a series of moderately to intensely silicified volcaniclastic rocks and fine grained epiclastic rocks.
From 525.21m to 641.84m, the lithology is marked by narrow quartzite units characterized by sharp contacts and intercalated intermediate volcanic (epiclastic) units. Those could be aplitic dykes (or sills) or meta sandstone (possibly channels within the volcanic sediments). Contacts, texture and occurrence tend to suggest sedimentary origin nevertheless porphyroblast ghosts seem occasional.
The bottom of the hole consists in volcaniclastic rhyolite and pelite interbedded. A unique lapilitic/garnet porphyroblasts unit is observed from 510.53m to 519.75m (potential marker unit).
No significant mineralization zones are intercepted excluding the massive sulphide crosscut at 46.45m. When observed, muscovite alteration is weak whereas silicification occurs pervasively.
The hole ends in at 854.50m in mudstone and mafic tuff interbedded.
DHEM survey was processed successfully from bottom to top by Aurora Geosciences.

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-59.9	193.4	1.4	194.8	TN14	Oscar Nielsen	8/19/2016		☑	
11	-61.1	177.6	22.1	199.7	ReflexEZS	New Age	8/19/2016	6388	☑	
39	-59.7	5.8	22.1	27.9	ReflexEZS	New Age	8/19/2016	3977	☐	Likely inside drill rods
68.5	-62.2	173.9	22.1	196	ReflexEZS	New Age	8/20/2016	6288	☑	
95.5	-53.1	351.2	22.1	13.3	ReflexEZS	New Age	8/21/2016	3073	☐	Likely inside drill rods
122.5	-62.7	170.7	22.1	192.8	ReflexEZS	New Age	8/22/2016	6456	☑	
149.5	-63.1	170.7	22.1	192.8	ReflexEZS	New Age	8/22/2016	6439	☑	
176.5	-63.1	171.1	22.1	193.2	ReflexEZS	New Age	8/22/2016	6445	☑	
200.5	-63.4	173.3	22.1	195.4	ReflexEZS	New Age	8/23/2016	6415	☑	
227	-63.7	174.3	22.1	196.4	ReflexEZS	New Age	8/23/2016	6427	☑	
260	-64	175.9	22.1	198	ReflexEZS	New Age	8/23/2016	5733	☑	
290	-63.9	174.4	22.1	196.5	ReflexEZS	New Age	8/24/2016	5732	☑	
310	-63.8	177.4	22.1	199.5	ReflexEZS	New Age	8/24/2016	5738	☑	

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
341	-64	178.6	22.1	200.7	ReflexEZS	New Age	8/25/2016	5731	☑	
371	-64	178.7	22.1	200.8	ReflexEZS	New Age	8/25/2016	5751	☑	
395	-63.9	177.9	22.1	200	ReflexEZS	New Age	8/25/2016	5736	☑	
425	-63.8	181.1	22.1	203.2	ReflexEZS	New Age	8/26/2016	5747	☑	
450	-63.7	181.5	22.1	203.6	ReflexEZS	New Age	8/26/2016	5727	☑	
482	-63.7	178.4	22.1	200.5	ReflexEZS	New Age	8/27/2016	5714	☑	
505	-63.6	182.6	22.1	204.7	ReflexEZS	New Age	8/27/2016	5732	☑	
536	-63.6	183.5	22.1	205.6	ReflexEZS	New Age	8/28/2016	5743	☑	
560	-63.8	182.3	22.1	204.4	ReflexEZS	New Age	8/28/2016	5733	☑	
600	-63.6	184	22.1	206.1	ReflexEZS	New Age	8/29/2016	5738	☑	No survey at 585.00m due to rods slipping-foot clamp issue.
632	-63.5	184.9	22.1	207	ReflexEZS	New Age	8/30/2016	5741	☑	
662	-63.1	186.3	22.1	208.4	ReflexEZS	New Age	8/30/2016	5706	☑	
692	-63.2	184.7	22.1	206.8	ReflexEZS	New Age	8/31/2016	5788	☑	
722	-62.4	186.5	22.1	208.6	ReflexEZS	New Age	9/1/2016	5720	☑	
752	-62.4	185.7	22.1	207.8	ReflexEZS	New Age	9/2/2016	5726	☑	
782	-62.1	188.2	22.1	210.3	ReflexEZS	New Age	9/3/2016	5728	☑	
824	-61.9	188.4	22.1	210.5	ReflexEZS	New Age	9/3/2016	5748	☑	
854	-61.4	189.3	22.1	211.4	ReflexEZS	New Age	9/4/2016	5725	☑	

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

0.00 4.50 OVBN Overburden

0 - 4.5: Casing Depth, solid rock

4.50 18.80 RHYvx Quartz and/or feldspar crystal medium grey FMG tuff

4.5 - 18.8: 1-2 mm blue round quartz eyes and 1-2mm cream -white angular clasts (feldspar crystal fragments?) in a blue-grey ashy matrix.

<<Min: 4.5 - 31.07 0.5% Min: Pyrrhotite>> Disseminated Pyrrhotite to near the beginning of MU/SI alteration

<<Alt: 4.5 - 18.8 Trace Calcite>>

18.80 19.67 RHYva Coarse grained to ash tuff grey-brown FG

18.8 - 19.67: grey-brown fine grained ashy bed with sharp planar contacts and sub mm black euhedral biotite porphyroblasts.

<<Alt: 18.8 - 19.67 Weak-Moderate Calcite>>

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

<<Alt: 18.8 - 19.67 Weak-Moderate Biotite>>

<<Struc: 18.8 - 18.8 Contact>> Contact between RHYvx and RHYva with pelitic input

19.67 23.47 RHYvx Quartz and/or feldspar crystal tuff light grey FMG

19.67 - 23.47: 1-4 mm blue quartz crystals with deformed siliceous white deformed "curdy" lapilli in a fine mica-altered matrix, interbedded with thin biotite porphyroblastic pelite beds

<<Alt: 19.67 - 23.47 Trace Calcite>>

23.47 26.31 PEL Equigranular biotite + calcite +/- quartz rock dark grey FG

23.47 - 26.31: Weakly banded black-biotite porphyroblastic ashy pelite unit. more pelitic material at the top

<<Alt: 23.47 - 26.31 Weak-Moderate Calcite>>

<<Alt: 23.47 - 26.31 Moderate Biotite>>

<<Vein: 25.63 - 25.87 100% Quartz-Carbonate>>

<<Struc: 23.8 - 23.8 Bedding>> Bedding within a pelitic unit

26.31 27.39 RHYvl Lapilli tuff light grey FCG

26.31 - 27.39: Graded unit from an ashy lapilli bearing top to a lapilli supported conglomerate at the bottom.

<<Alt: 26.31 - 27.39 Trace Calcite>>

<<Struc: 26.9 - 26.9 Bedding>> Lapilli flattening direction in a RHYvl

27.39 29.35 RHYi Aphanitic Rhyolite (intrusion) grey pink VFG

27.39 - 29.35: Very siliceous unit, weakly quartz phyric and massive. Thin (<10 cm) ashy domains are present, possibly xenoliths (?) could indicate that this is actually a sedimentary unit that has been silicified. Sharp planar contacts.

29.35 46.45 RHYva Coarse grained to ash tuff light grey FG

From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
45.00	46.45	1.45	B00291966	-0.005	-0.3	-0.01	-0.01	0.02

29.35 - 46.45: Fine grained ashy, very siliceous unit, altered in some section s to muscovite. strong silicification gives it the appearance of RHYi in some sections however the unit gradationally changes in and out of this alteration.

<<Min: 31.07 - 44.24 0.5% Min: Pyrite>> Associated with OP MU and SI alteration

<<Min: 44.24 - 46.45 0.5% Min: Pyrrhotite>> Associated with syngenetic MU

<<Min: 44.24 - 46.45 0.1% Min: Chalcopyrite>> With PO

<<Alt: 29.35 - 34.5 Weak Calcite>>

<<Alt: 34.5 - 40.07 Moderate Silicification>>

<<Alt: 34.5 - 40.07 Trace Calcite>>

<<Alt: 40.07 - 44.24 Weak Muscovite>>

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Alt: 40.07 - 44.24 Weak Calcite>>									
		<<Alt: 44.24 - 46.45 Moderate-Strong Muscovite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 44.24 - 46.45 Weak Biotite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Vein: 31.07 - 32.35 80% Quartz-Carbonate>>									
		<<Vein: 44.24 - 45.91 75% Quartz-Carbonate>>									
		<<Struc: 43.9 - 43.9 dominant foliation>> orientation of micaceous parting									
46.45	**46.97**	**OF Pyrrhotite rich sulphides FMG**	46.45	46.97	0.52	B00291967	0.08	26.2	0.79	0.26	9.02
		46.45 - 46.97: Massive sulphide interval. Sulphide makes up 50-60% of the interval. PO dominates the sulphide assemblage (60%) with 20% pyrite, 10% sphalerite, and 10% chalcopyrite. The remaining portion f the interval comprises calcite blebs and bands and relict host rock altered to chlorite and biotite.									
		<<Min: 46.45 - 46.94 5% Min: Sphalerite>> Predominantly in the lower half of the unit									
		<<Min: 46.45 - 46.94 10% Min: Pyrite>> Disseminated round grains of pyrite predominantly in the lower half of the unit									
		<<Min: 46.45 - 46.94 30% Min: Pyrrhotite>> The bulk of the massive sulphide in this interval is pyrrhotite.									
		<<Min: 46.45 - 46.94 5% Min: Chalcopyrite>> Forms a net texture with pyrrhotite									
		<<Alt: 46.45 - 46.94 Moderate Tourmaline>> Perfect euhedral black tourmaline crystals									
		<<Alt: 46.45 - 46.94 Moderate Chlorite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 46.45 - 46.94 Moderate Calcite>>									
		<<Alt: 46.45 - 46.94 Moderate Biotite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 46.94 - 47.22 Moderate Muscovite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 46.94 - 50.95 Weak-Moderate Tourmaline>> Associated with zones of more intense mineralization									
		<<Alt: 46.94 - 50.95 Weak-Moderate Chlorite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 46.94 - 50.95 Weak-Moderate Biotite>> Appears to be associated with the mineralization and the immediately surrounding rock									
		<<Alt: 46.94 - 51.29 Moderate Calcite>>									
46.97	**51.29**	**RHYv Rhyolite volcaniclastic green-brown FG**	46.97	48.47	1.50	B00291968	-0.005	0.6	-0.01	0.02	0.04
		46.97 - 51.29: Strongly chlorite-biotite altered unit, fine grained with bands defined by biotite porphyroblasts and calcite. Wisps, blebs, and thin bands of sphalerite, pyrite, and pyrrhotite are present.									
		<<Min: 46.97 - 50.95 0.5% Min: Sphalerite>>	48.47	49.67	1.20	B00291969	-0.005	0.3	-0.01	-0.01	0.02
		<<Min: 46.97 - 50.95 1% Min: Pyrrhotite>> Associated with the proximal syngenetic alteration	49.67	50.95	1.28	B00291971	-0.005	1.6	0.02	0.02	0.16

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

<<Min: 46.97 - 50.95 0.5% Min: Chalcopyrite>> associated with PO

<<Min: 50.95 - 54.31 0.1% Min: Pyrite>>

<<Vein: 47.88 - 48.15 50% Quartz-Carbonate>> Galena

<<Struc: 46.97 - 46.97 Contact>> OB/footwall rock contact. Upper contact is sub-parallel

51.29 53.97 RHYcw Curdy textured-flow banded (flows, subvolcanics) green FG

51.29 - 53.97: Strongly banded (chaotic folding - flow banding) siliceous-micaceous unit. Bottom contact has fluidal (?) siliceous clasts (?) in a micaceous matrix.

<<Alt: 51.29 - 53.97 Weak-Moderate Muscovite>>

<<Alt: 51.29 - 53.97 Trace Calcite>>

53.97 70.01 RHYva Coarse grained to ash tuff light grey FG

53.97 - 70.01: Fine grained light grey siliceous-very siliceous unit. Appears to be granular. uncommon 1 mm round brown garnet porphyroblasts. lowest metre of the unit is strongly carbonate altered.

<<Min: 54.31 - 54.92 5% Min: Pyrite>>

<<Min: 54.92 - 58.02 0.5% Min: Pyrite>>

<<Min: 58.02 - 70 0.5% Min: Pyrrhotite>>

<<Min: 70 - 71.01 3% Min: Pyrite>> Associated with a zone of calcite alteration

<<Alt: 53.97 - 58.02 Weak Muscovite>>

<<Alt: 53.97 - 70 Trace Garnet>>

<<Alt: 53.97 - 70 Weak Calcite>>

<<Alt: 58.02 - 70 Weak Silicification>>

<<Alt: 70 - 71.01 Moderate-Strong Calcite>> associated with pyrite

<<Vein: 54.31 - 54.92 85% Quartz-Carbonate 75 deg. >>

<<Struc: 58.02 - 58.25 Weak Fault>> Rubbly fault, likely little movement

<<Struc: 68.1 - 68.1 dominant foliation>> Micaceous parting

70.01 75.72 RHYcw Curdy textured-flow banded (flows, subvolcanics) green FG

70.01 - 75.72: Fine grained chaotically banded (flow banded) unit with brecciated upper and lower contacts. Non-siliceous domains are flaky green muscovite.

<<Min: 71.01 - 76.95 0.1% Min: Pyrrhotite>>

<<Alt: 71.01 - 75.72 Weak-Moderate Muscovite>>

<<Alt: 71.01 - 75.72 Weak Calcite>>

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

75.72 76.95 RHYva Coarse grained to ash tuff green FMG

75.72 - 76.95: Fine grained ashy unit with rare granule sized grains and poorly developed bedding

<<Alt: 75.72 - 76.95 Trace Muscovite>>

<<Alt: 75.72 - 76.95 Weak Calcite>>

76.95 77.46 PEL Equigranular biotite + calcite +/- quartz rock green-brown FG

76.95 - 77.46: fine grained well banded sediment with black and brown biotite.

<<Min: 76.95 - 77.46 0.1% Min: Pyrite>>

<<Min: 76.95 - 77.46 0.1% Min: Pyrrhotite>>

<<Alt: 76.95 - 77.46 Moderate-Strong Calcite>>

<<Alt: 76.95 - 77.46 Weak Biotite>>

<<Vein: 77.4 - 77.97 25% Quartz-Carbonate>>

77.46 82.99 RHYva Coarse grained to ash tuff green FMG

77.46 - 82.99: Domains of flow banded RHYcw (or silicification?) with irregular margins in a matrix consisting of ashy RHYva.

<<Min: 77.46 - 80.3 0.1% Min: Pyrite>>

<<Min: 77.46 - 80.3 0.5% Min: Pyrrhotite>>

<<Min: 80.3 - 82.99 0.1% Min: Pyrite>>

<<Alt: 77.46 - 82.99 Weak-Moderate Muscovite>>

<<Alt: 77.46 - 82.99 Weak Calcite>>

<<Alt: 80.3 - 95.75 Moderate Silicification>> Related to RHYi?

<<Vein: 80.3 - 80.41 100% Quartz-Carbonate>>

<<Vein: 80.75 - 81.67 40% Quartz-Carbonate-Sulphide>> 0.1% Galena

<<Struc: 77.5 - 77.5 dominant foliation>> Micaceous Parting

<<Struc: 82.6 - 82.6 dominant foliation>> Micaceous parting

82.99 88.37 RHYi Aphanitic Rhyolite (intrusion) grey pink FG

82.99 - 88.37: Aphanitic, weakly amygdaloidal. The upper metre of the unit is brecciated and cemented by quartz-pyrite. It is unclear if the rock was brecciated by his fluid or if it was brecciated prior to the infiltration of the fluid.

<<Min: 82.99 - 84.09 3% Min: Pyrite>>

<<Min: 84.09 - 88.37 0.5% Min: Pyrite>>

<<Min: 84.09 - 88.37 0.1% Min: Pyrrhotite>>

<<Vein: 82.99 - 84.09 10% Quartz>>

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

<<Struc: 82.99 - 82.99 Contact>> RHYva-RHYi contact

88.37 89.90 RHYva Coarse grained to ash tuff medium grey FMG

88.37 - 89.9: Possible xenolith? sits between two RHYi bodies moderate silicification, 2-10 mm lapilli.

<<Min: 88.37 - 89.9 0.1% Min: Pyrite>>

<<Alt: 88.37 - 89.9 Weak Calcite>>

89.90 95.46 RHYi Aphanitic Rhyolite (intrusion) grey pink FG

89.9 - 95.46: Grey pink aphanitic unit with oblate, lensoid and dumbbell shaped quartz filled amygdules.

<<Min: 89.9 - 95.46 1% Min: Pyrite>>

<<Min: 94.4 - 95.46 0.1% Min: Pyrrhotite>>

<<Vein: 92.6 - 93.95 85% Quartz>>

<<Vein: 94.47 - 94.99 100% Quartz-Carbonate 75 deg. >>

<<Vein: 94.49 - 94.95 80% Quartz-Carbonate>>

<<Struc: 89.9 - 89.9 Contact>> RHYva-RHYi contact

95.46 105.12 RHYva Coarse grained to ash tuff medium grey FMG

95.46 - 105.12: Subangular to subrounded granule sized lithic fragments, quartz eyes, and white lapilli in an ash sized matrix. likely resedimented.

<<Min: 95.46 - 119.5 0.5% Min: Pyrrhotite>>

<<Alt: 95.46 - 105.12 Weak Calcite>>

<<Struc: 99.8 - 100.3 Weak-Moderate Fault>> zone of thin gougy-crushed rock faults

<<Struc: 102.14 - 102.4 Weak Fault>> zone of crushed rock faults

105.12 105.62 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

105.12 - 105.62: Bands of black euhedral and brown shreddy biotite porphyroblast bearing, fine grained sedimentary rock

<<Alt: 105.12 - 105.62 Moderate Calcite>>

<<Alt: 105.12 - 105.62 Weak-Moderate Biotite>>

105.62 110.06 RHYva Coarse grained to ash tuff medium grey FMG

105.62 - 110.06: Subangular to subrounded granule sized lithic fragments, quartz eyes, and white lapilli in an ash sized matrix. Likely resedimented.

<<Alt: 105.62 - 113.11 Weak-Moderate Calcite>>

<<Vein: 109.85 - 110.27 35% Quartz-Carbonate 70 deg. >>

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

110.06 113.11 RHYcw Curdy textured-flow banded (flows, subvolcanics) grey-green FG

110.06 - 113.11: White-green aphanitic rock with bands of siliceous material, interpreted to be flow bands. Could be lapilli?

<<Min: 110.06 - 113.11 0.1% Min: Pyrite>>

113.11 136.11 RHYva Coarse grained to ash tuff medium grey FCG

113.11 - 136.11: medium grey gritty volcaniclastic sedimentary rock with predominantly granule sized lithic clasts and rare quartz eyes. There is a population of large cobble sized clasts with flow banding, suggesting a coherent rhyolite.

<<Min: 119.5 - 122.5 1% Min: Pyrite>>

<<Min: 122.5 - 136.11 0.1% Min: Pyrrhotite>>

<<Alt: 113.11 - 119.5 Weak-Moderate Silicification>>

<<Alt: 113.11 - 136.11 Weak Calcite>>

<<Alt: 119.5 - 121.05 Moderate-Strong Silicification>>

<<Alt: 121.05 - 122.5 Moderate Silicification>>

<<Alt: 122.5 - 136.11 Weak-Moderate Silicification>>

<<Vein: 119.5 - 121.05 50% Quartz-Carbonate>>

<<Vein: 130.74 - 131.05 65% Quartz-Carbonate>>

<<Vein: 133.54 - 133.78 10% Quartz-Carbonate 70 deg. >>

<<Vein: 135.74 - 135.79 75% Quartz-Carbonate 40 deg. >>

136.11 137.26 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

136.11 - 137.26: Dark grey-brown ankerite-biotite porphyroblastic fine grained pelitic unit.

<<Alt: 136.11 - 137.26 Moderate Calcite>>

<<Alt: 136.11 - 137.26 Strong Biotite>>

<<Vein: 136.9 - 137.5 40% Calcite 70 deg. >>

<<Struc: 136.3 - 136.31 Weak Fault>> Gouge filled fracture

137.26 141.42 RHYva Coarse grained to ash tuff medium grey FMG

137.26 - 141.42: medium grey-green sandy, massive unit without quartz eyes.

<<Min: 137.26 - 141.42 0.1% Min: Pyrite>>

<<Min: 137.26 - 141.42 0.1% Min: Pyrrhotite>>

<<Alt: 137.26 - 144.6 Weak-Moderate Silicification>>

<<Alt: 137.26 - 154.1 Weak Calcite>>

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

141.42 142.30 MDSt Rhyolite tuff dominant mudstone dark grey FG

141.42 - 142.3: Dark grey carbonaceous mudstone unit interlayered with tuffaceous sediment. Gradational lower contact, sharp upper contact.

<<Min: 141.42 - 142.3 0.1% Min: Pyrite>>

142.30 145.60 RHYva Coarse grained to ash tuff grey pink FMG

142.3 - 145.6: Medium grey-green to pink gritty sedimentary rock (wacke-granule conglomerate). The lowest metre is stained pink with hematite and contains angular blebs of jasper, possibly derived from pyrite (relict? pyrite crystal in one jasper bleb)

<<Min: 142.3 - 144.6 0.1% Min: Pyrrhotite>>

<<Min: 144.6 - 146.26 0.01% Min: Pyrite>> Altered to jasper

<<Alt: 144.6 - 155.91 Moderate Silicification>>

145.60 146.26 MDSt Rhyolite tuff dominant mudstone dark grey FG

145.6 - 146.26: Dark grey carbonaceous mudstone unit interlayered with tuffaceous sediment, lower contact is gradational, upper contact is a fault

<<Struc: 145.9 - 145.9 dominant foliation>> Foliation in MDSt, representing bedding (transposed?)

146.26 154.10 RHYva Coarse grained to ash tuff medium grey FMG

146.26 - 154.1: medium grey package of rocks comprising a gritty tuffaceous wacke and beds of extremely fine grained well sorted siliceous ash.

<<Min: 146.26 - 164.92 0.01% Min: Pyrrhotite>> Altered to jasper

<<Struc: 151.4 - 151.4 dominant foliation>>

154.10 155.91 RHYi Aphanitic Rhyolite (intrusion) grey pink FG

154.1 - 155.91: Pink grey unit, strongly siliceous with blebs of jasper and a crackle texture. Could be hematite altered RHYva

155.91 164.92 RHYva Coarse grained to ash tuff medium grey FMG

155.91 - 164.92: Medium grey-green to pink gritty sedimentary rock (wacke-granule conglomerate).

<<Alt: 155.91 - 169.18 Weak-Moderate Silicification>>

<<Alt: 155.91 - 169.18 Weak-Moderate Calcite>>

<<Vein: 158.29 - 158.32 100% Quartz-Carbonate 90 deg. >>

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

164.92 165.36 MDSc Carbonaceous dominant mudstone dark grey FG

164.92 - 165.36: Dark grey carbonaceous mudstone that has been strongly silicified. well bedded. upper contact is sharp,lower contact is gradational.

<<Min: 164.92 - 172.88 0.01% Min: Pyrite>> Altered to jasper

165.36 169.18 RHYv Rhyolite volcaniclastic green FMG

165.36 - 169.18: light green strongly muscovite altered unit, relict gritty clasts and banding are present suggesting a RHYva.

<<Alt: 165.36 - 169.18 Moderate Muscovite>> Non-siliceous domains altered

169.18 170.04 MDSc Carbonaceous dominant mudstone black VFG

169.18 - 170.04: Black, carbonaceous, silicified, mudstone with folded bedding.

<<Alt: 169.18 - 170.04 Moderate Silicification>>

<<Struc: 169.18 - 169.18 Contact>> MDSc/RHYva contact

170.04 172.88 MDSt Rhyolite tuff dominant mudstone medium grey FG

170.04 - 172.88: Interbedded black carbonaceous mudstone and muscovite altered green rhyolitic volcaniclastic rock. All units are silicified.

<<Alt: 170.04 - 173.72 Weak Calcite>>

<<Alt: 170.4 - 173.72 Weak-Moderate Silicification>>

172.88 178.34 RHYva Coarse grained to ash tuff grey-green FMG

172.88 - 178.34: Poorly sorted weakly laminated to massive, volcaniclastic rock. ~1mm garnet porphyroblasts disseminated locally.

<<Min: 172.88 - 178.34 0.1% Min: Pyrrhotite>> Altered to jasper

<<Alt: 172.88 - 178.34 Weak-Moderate Muscovite>> Non-siliceous domains altered

<<Alt: 173.5 - 176.3 Moderate Garnet>>

<<Alt: 173.72 - 176.3 Trace Calcite>>

<<Alt: 173.72 - 176.48 Moderate Silicification>>

<<Alt: 176.48 - 176.91 Moderate-Strong Silicification>>

<<Alt: 176.8 - 180.24 Moderate Calcite>>

<<Alt: 176.91 - 178.34 Weak-Moderate Silicification>>

<<Vein: 176.48 - 176.91 50% Quartz>> very white, soft non-swelling (?) clay mineral in vein. could be relict host rock

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

<<Vein: 177.26 - 180.71 10% Calcite 70 deg. >>

178.34 180.24 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

178.34 - 180.24: Four zones of biotite porphyroblast growth within a fine tuffaceous sequence.

<<Alt: 178.34 - 180.24 Weak-Moderate Biotite>>

180.24 191.01 RHYva Coarse grained to ash tuff grey-green FMG

180.24 - 191.01: Medium grey-green gritty sedimentary rock (wacke-granule conglomerate) with uncommon small 2-5mm white lapilli clasts and lithic clasts.

<<Min: 180.24 - 191.01 0.1% Min: Pyrrhotite>>

<<Min: 180.89 - 191.01 0.1% Min: Pyrite>>

<<Alt: 180.24 - 183 Weak-Moderate Talc-serpentine>> This represents kaolinite-white clay.

<<Alt: 180.24 - 191.01 Moderate Silicification>>

<<Alt: 180.24 - 191.01 Weak Calcite>>

<<Vein: 180.89 - 182.34 20% Quartz>>

<<Vein: 184.39 - 184.44 100% Quartz-Carbonate 90 deg. >>

<<Vein: 185.77 - 187.55 10% Quartz>>

<<Vein: 190.96 - 193.23 15% Calcite>>

191.01 193.23 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

191.01 - 193.23: Dark grey-brown fine grained, well sorted biotite and ankerite porphyroblast bearing pelitic bed. Upper contact is faulted, lower contact is gradational.

<<Alt: 191.01 - 193.23 Moderate-Strong Calcite>>

<<Alt: 191.01 - 193.23 Moderate Biotite>>

193.23 213.47 RHYva Coarse grained to ash tuff medium grey FMG

193.23 - 213.47: Medium grey-green gritty sedimentary rock (wacke-granule conglomerate) with uncommon small 2-5mm white lapilli clasts and lithic clasts.

<<Min: 193.23 - 213.47 0.1% Min: Pyrite>>

<<Min: 193.23 - 213.47 0.5% Min: Pyrrhotite>>

<<Alt: 193.23 - 206.5 Weak-Moderate Silicification>>

<<Alt: 193.23 - 216.53 Trace Calcite>>

<<Alt: 206.5 - 213.47 Moderate Silicification>>

<<Struc: 198.4 - 198.4 dominant foliation>> micaceous parting

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

<<Struc: 203.5 - 203.5 dominant foliation>> micaceous parting

213.47 216.53 RHYva Coarse grained to ash tuff light grey VFG

213.47 - 216.53: Very fine grained cherty, siliceous rock, conformably overlies a pelite with a sharp planar contact, possibly a distal ash fall?

<<Min: 213.47 - 216.53 0.5% Min: Pyrrhotite>>

<<Alt: 213.47 - 216 Moderate-Strong Silicification>>

<<Alt: 216 - 216.53 Strong Silicification>>

<<Vein: 215.49 - 216 35% Quartz-Carbonate 90 deg. >>

216.53 217.03 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

216.53 - 217.03: Ashy pelitic unit, with biotite and ankerite porphyroblasts and

<<Struc: 216.53 - 216.53 Contact>> Sharp planar contact between pelite ash (chert?)

217.03 237.36 RHYva Coarse grained to ash tuff grey-green FMG

217.03 - 237.36: Medium grey-green gritty sedimentary rock (wacke-granule conglomerate) with rare all blue quartz eyes, uncommon small 2-5mm white lapilli clasts and lithic clasts. Graded beds rarely reach larger lapilli sizes and densities.

<<Min: 217.03 - 237.36 0.1% Min: Pyrite>>

<<Min: 217.03 - 237.36 0.5% Min: Pyrrhotite>>

<<Alt: 217.03 - 237.36 Weak-Moderate Silicification>>

<<Alt: 217.03 - 237.36 Trace Calcite>>

<<Vein: 218.37 - 218.68 40% Quartz-Carbonate 90 deg. >>

<<Vein: 219 - 219.26 100% Quartz-Carbonate 75 deg. >>

<<Vein: 235.9 - 253.97 100% Quartz-Carbonate 90 deg. >>

<<Struc: 229.9 - 229.9 dominant foliation>> micaceous parting

237.36 238.10 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

237.36 - 238.1: Banded, ashy, fine grained biotite and carbonate porphyroblast bearing sedimentary rock. Sharp planar upper contact, gradational lower contact.

<<Min: 237.36 - 238.1 0.5% Min: Pyrite>>

<<Alt: 237.36 - 238.1 Weak-Moderate Calcite>>

<<Alt: 237.36 - 238.1 Weak Biotite>>

<<Vein: 237.55 - 237.6 100% Calcite 85 deg. >>

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

238.10 244.39 RHYva Coarse grained to ash tuff grey-green FMG

238.1 - 244.39: Medium grey-green sedimentary rock with rare blue quartz eyes, and possible lithic clasts.

<<Min: 238.1 - 244.39 0.1% Min: Pyrite>>

<<Alt: 238.1 - 244.39 Weak Silicification>>

<<Alt: 238.1 - 244.39 Weak-Moderate Muscovite>>

<<Alt: 238.1 - 244.39 Trace Calcite>>

<<Vein: 240.44 - 240.49 50% Quartz-Carbonate 85 deg. >>

<<Struc: 241.05 - 241.06 Fault>> Thin gougy fault

244.39 245.07 FLZ Fault Zone light grey

244.39 - 245.07: Gouge rich fault zone with a minor component of crushed rock.

<<Vein: 244.39 - 244.71 95% Quartz-Carbonate>> wall rock pulled in altered to muscovite, hematite.

<<Struc: 244.39 - 245.07 Moderate-Strong Fault>> Thick gouge filled fault with a quartz vein at the top (healed earlier fault?)

245.07 252.24 RHYv Rhyolite volcaniclastic green

245.07 - 252.24: strongly brecciated, muscovite-hematite-chlorite altered rock. Relict banding and granular texture suggest a volcaniclastic primary lithology.

<<Alt: 245.07 - 248.3 Weak-Moderate Calcite>>

<<Alt: 245.07 - 252.24 Weak-Moderate Muscovite>>

<<Alt: 248.3 - 252.24 Trace Calcite>>

<<Alt: 249.26 - 250.63 Moderate Silicification>>

<<Alt: 250.63 - 252.24 Weak Silicification>>

<<Vein: 247.64 - 247.76 98% Quartz-Carbonate 90 deg. >> 2% wallrock in vein

<<Struc: 247 - 250.5 Weak-Moderate Fault>> Zoe of broken rock and minor gouge development

252.24 253.89 PEL Equigranular biotite + calcite +/- quartz rock dark grey FG

252.24 - 253.89: Banded, well sorted black euhedral biotite bearing sedimentary rock. Some sections appear to be chlorite altered.

<<Min: 252.78 - 275.77 0.1% Min: Pyrite>> local patches up to 0.5%, with jasper

<<Alt: 252.24 - 253.89 Moderate Calcite>>

<<Alt: 252.24 - 253.89 Weak Biotite>>

<<Vein: 253 - 253.24 90% Quartz-Carbonate 75 deg. >>

<<Struc: 253.25 - 253.25 dominant foliation>> banding orientation in pelite

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

253.89 261.67 RHYva Coarse grained to ash tuff medium grey FMG

253.89 - 261.67: Massive, moderately sorted tuffaceous sandstone to pebble bearing conglomerate with a sandy matrix.

<<Alt: 253.89 - 270.97 Moderate Silicification>>

<<Alt: 253.89 - 270.97 Weak Garnet>>

<<Alt: 253.89 - 270.97 Weak Calcite>>

<<Vein: 254.64 - 255.42 100% Quartz-Carbonate 70 deg. >>

<<Struc: 257 - 259.8 Weak Fault>> Zone of broken and crushed rock

<<Struc: 260.5 - 260.5 dominant foliation>> Micaceous parting

261.67 262.97 RHYvl Lapilli tuff grey pink FCG

261.67 - 262.97: Massive bed (grades in from RHYva) with large pebble to coble sized clasts of white-pink (hematite stained?) lapilli.

262.97 270.97 RHYva Coarse grained to ash tuff grey-green FMG

262.97 - 270.97: Medium grey-green sedimentary rock with rare blue quartz eyes, small lapilli, and possible lithic clasts. Bottom 1 metre is bleached and stained pink with hematite.

270.97 272.72 MDSc Carbonaceous dominant mudstone black VFG

270.97 - 272.72: Very fine grained black carbonaceous mudstone. Upper contact is marked by small scale flame structures indicating tops upwards.

<<Alt: 270.97 - 273.53 Weak-Moderate Silicification>>

<<Struc: 270.97 - 270.97 Contact>> Sharp mudstone-RHYva contact

<<Struc: 271.16 - 271.35 Moderate Fault>> Gouge-crushed rock filled fault zone

272.72 275.77 RHYv Rhyolite volcaniclastic light grey FMG

272.72 - 275.77: Massive, granular textured rock, strong silicification make identification difficult however textures suggest a clastic protolith.

<<Alt: 272.72 - 273.53 Weak-Moderate Muscovite>>

<<Alt: 272.72 - 282.95 Weak Calcite>>

<<Alt: 273.53 - 275.77 Moderate Silicification>>

<<Struc: 273.45 - 273.53 Weak-Moderate Fault>> Thin, gougy fault

275.77 277.66 RHYi Aphanitic Rhyolite (intrusion) light grey FG

275.77 - 277.66: Fine grained, very siliceous, light grey green rock with silica filled "micro-amygdules" with lensoid and oblate forms as well as silica filled crackle texture veins. upper an lower contacts are veined.

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

<<Alt: 275.77 - 278 Strong Silicification>>

<<Vein: 275.85 - 277.2 5% Calcite>>

<<Vein: 277.2 - 277.66 100% Quartz-Carbonate 90 deg. >>

277.66 279.38 RHYva Coarse grained to ash tuff medium grey FMG

277.66 - 279.38: Medium grey-green sedimentary rock with small lapilli and possible lithic clasts. Lapilli bleached and stained pink with hematite.

<<Alt: 278 - 282.95 Moderate-Strong Silicification>>

<<Alt: 279 - 284.52 Moderate Albite>> Pink staining, albite according to Cominco. Seems to be spatially related to flecks of jasper.\

279.38 281.12 RHYvl Lapilli tuff grey pink FCG

279.38 - 281.12: Massive bed (grades in from RHYva) with large pebble to coble sized clasts of white-pink (hematite stained?) lapilli.

<<Min: 281 - 282.95 0.01% Min: Pyrrhotite>>

<<Struc: 279.5 - 279.5 dominant foliation>> Micaceous parting

<<Struc: 280.1 - 280.11 Weak-Moderate Fault>> Thin, gougy fault

281.12 282.95 RHYva Coarse grained to ash tuff grey pink FMG

281.12 - 282.95: Medium grey-green sedimentary rock with small lapilli and possible lithic clasts. Lapilli bleached and stained pink with hematite.

282.95 284.52 RHYvl Lapilli tuff grey pink FCG

282.95 - 284.52: Massive bed comprising white-pink subrounded to amoeboid clasts in a fine grained matrix. Predominantly matrix supported. Clasts selectively altered with pink staining (hematite?)

<<Alt: 282.95 - 287.49 Moderate Silicification>>

<<Alt: 282.95 - 289.45 Weak-Moderate Calcite>>

<<Alt: 282.95 - 317.24 Weak Garnet>>

284.52 287.49 RHYva Coarse grained to ash tuff grey-green FCG

284.52 - 287.49: Massive unit of fine grained tuffaceous sediment with rare lapilli sized clasts and common quartz eyes.

287.49 289.45 RHYva Coarse grained to ash tuff grey-green FG

287.49 - 289.45: Sandy textured, bedded tuffaceous sediment.

<<Alt: 287.49 - 291 Weak-Moderate Silicification>>

<<Vein: 288.53 - 288.63 100% Quartz-Carbonate 15 deg. >>

<<Struc: 289.35 - 289.35 dominant foliation>> Micaceous parting

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

289.45 291.28 RHYvx Quartz and/or feldspar crystal tuff grey-green FCG

289.45 - 291.28: Clasts of crystals and crystal fragments (2-12 mm feldspar and blue quartz) in a sandy matrix. Matrix supported.

<<Alt: 289.45 - 308.84 Weak Calcite>>

<<Alt: 291 - 306 Moderate Silicification>>

<<Struc: 289.45 - 290.15 Weak Fault>> Zone of crushed rock

291.28 308.84 RHYva Coarse grained to ash tuff medium grey FCG

291.28 - 308.84: Gritty tuffaceous sandstone with scattered clasts and bands of lapilli, crystal fragments, and blue quartz eyes in a compositionally dominant matrix of ash sized volcaniclastic material.

<<Alt: 293 - 297 Weak Albite>> Pink staining.

<<Alt: 306 - 308.84 Weak Silicification>>

<<Struc: 294.2 - 294.3 Weak-Moderate Fault>> Thin zone of gouge and rubble

<<Struc: 299.3 - 299.5 Weak-Moderate Fault>> Thin zone of gouge and rubble

<<Struc: 307.3 - 307.3 dominant foliation>> Micaceous parting

308.84 313.30 RHYvl Lapilli tuff medium grey FCG

308.84 - 313.3: Lenticular lapilli that have been selectively stained a pink hue give the rock a streaked look. Lapilli are 10 to >64 mm in length but only up to 10 mm in width. The matrix is a fine ashy material.

<<Alt: 308.84 - 313.3 Trace Calcite>>

<<Alt: 308.84 - 313.3 Weak Albite>> Pink staining

<<Alt: 308.84 - 315.5 Moderate Silicification>>

<<Struc: 311.75 - 311.75 dominant foliation>> Micaceous parting

313.30 317.24 RHYva Coarse grained to ash tuff light grey MG

313.3 - 317.24: Granular, banded sandy, well sorted ashy tuff with possible grading from silt sized grains at the top to coarse sand sized grains at the bottom.

<<Min: 315.5 - 317.24 0.5% Min: Pyrite>>

<<Alt: 313.3 - 315.5 Moderate Albite>> Pink staining

<<Alt: 313.3 - 317.24 Weak Calcite>>

317.24 318.47 RHYi Aphanitic Rhyolite (intrusion) grey-green CG

317.24 - 318.47: Irregular, jigsaw fit clasts (8- >64 mm) of RHYi in a matrix of quartz, chlorite and sandy particles, possibly from the overlying unit. Possible pepperite?

<<Alt: 317.24 - 318.47 Moderate Silicification>>

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

<<Alt: 317.24 - 318.47 Moderate Chlorite>> In breccia matrix

<<Alt: 317.24 - 323.5 Trace Calcite>>

<<Vein: 317.33 - 318.53 20% Quartz>>

<<Struc: 317.24 - 317.24 Contact>> Breccia zone contact

318.47 323.50 RHYi Aphanitic Rhyolite (intrusion) light grey VFG

318.47 - 323.5: Massive, porphyritic coherent rock with rare quartz filled, round amygdules. Rock is extremely siliceous.

<<Alt: 318.47 - 323.5 Strong Silicification>>

323.50 346.81 RHYva Coarse grained to ash tuff light grey FMG

323.5 - 346.81: Massive, moderately sorted, gritty RHYva with angular to subrounded clasts including lapilli, lithic fragments and quartz eyes.

<<Min: 332.46 - 336 0.1% Min: Pyrite>>

<<Min: 332.46 - 336 0.01% Min: Pyrrhotite>>

<<Min: 336 - 388.79 0.1% Min: Pyrrhotite>>

<<Min: 337 - 346.81 0.1% Min: Pyrite>>

<<Alt: 323.5 - 332 Weak-Moderate Silicification>>

<<Alt: 323.5 - 351.16 Weak Calcite>>

<<Alt: 332 - 336.69 Moderate Silicification>>

<<Alt: 333.27 - 335.75 Moderate Albite>> Cream green bleaching of the rock with associated patchy pink staining, likely due to hematite

<<Alt: 336.69 - 353.88 Weak-Moderate Silicification>>

<<Vein: 324.36 - 324.65 100% Quartz-Carbonate 80 deg. >>

<<Vein: 325.25 - 325.29 60% Quartz 44 deg. >>

<<Vein: 330.29 - 331.07 40% Quartz-Carbonate 80 deg. >>

<<Vein: 332.46 - 335.75 5% Quartz-Carbonate 80 deg. >> Spatially associated with a zone of albitic/hematitic alteration.

<<Vein: 339.08 - 339.49 80% Quartz-Carbonate 90 deg. >>

<<Vein: 340.52 - 340.65 85% Quartz-Carbonate 90 deg. >>

<<Vein: 341.15 - 341.21 100% Quartz-Carbonate 90 deg. >>

<<Struc: 330.29 - 330.9 Trace Fault>> Zone of broken rock

<<Struc: 338.24 - 338.25 Weak Fault>> Thin gougy fault

346.81 350.09 RHYvl Lapilli tuff medium grey FCG

346.81 - 350.09: Massive unit of lapilli bearing tuffaceous rock with 5-30 mm white lapilli (some maybe feldspar crystals) and abundant quartz eyes.

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

350.09 351.16 RHYva Coarse grained to ash tuff medium grey FMG

350.09 - 351.16: Graded unit with quartz eye granule bearing tuff at the top, grading to a lapilli bearing ashy tuff at the bottom.

351.16 353.88 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

351.16 - 353.88: Dark brown-black unit with bands of biotite rich pelite and light brown-grey, less biotite rich material interpreted as more and less pelitic input into this fine grained, well sorted sediment.

<<Alt: 351.16 - 353.88 Weak-Moderate Calcite>>

<<Alt: 351.16 - 353.88 Moderate Biotite>>

<<Alt: 351.16 - 353.88 Weak-Moderate Ankerite>>

<<Vein: 351.26 - 353.94 10% Calcite 80 deg. >>

<<Struc: 353.86 - 353.86 Bedding>> Bedding within the Pelite unit

353.88 356.76 RHYvl Lapilli tuff grey-green FCG

353.88 - 356.76: Monomictic lapilli rick clasts supported lapilli bearing (8-30 mm) tuff unit with abundant quartz eye granules.

<<Alt: 353.88 - 362.7 Moderate Silicification>>

<<Alt: 353.88 - 363.58 Weak Biotite>>

<<Alt: 353.88 - 370.14 Weak Calcite>>

356.76 359.58 RHYva Coarse grained to ash tuff grey-green FMG

356.76 - 359.58: Massive, sandy textured tuffaceous sediment with common quartz eyes. Grades into the underlying RHYvl.

<<Vein: 359.2 - 359.27 65% Quartz-Carbonate 90 deg. >>

359.58 363.58 RHYvl Lapilli tuff grey-green FCG

359.58 - 363.58: Monomictic lapilli rick clasts supported lapilli bearing (8-30 mm) tuff unit with abundant quartz eye granules.

<<Alt: 362.7 - 363.58 Weak-Moderate Silicification>>

363.58 363.97 FLZ Fault Zone light grey

363.58 - 363.97: Intensely gougy fault zone.

<<Struc: 363.58 - 363.97 Moderate Fault>> Fault filled completely with gouge

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

363.97 367.59 RHYvl Lapilli tuff grey-green FCG

363.97 - 367.59: Monomictic lapilli rick clasts supported lapilli bearing (8-30 mm) tuff unit with abundant quartz eye granules.

<<Alt: 363.97 - 364.54 Weak-Moderate Silicification>>

<<Alt: 363.97 - 365.38 Weak Biotite>>

<<Alt: 364.54 - 370.16 Moderate Silicification>>

367.59 368.26 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

367.59 - 368.26: Dark brown-black unit with bands of biotite rich pelite and light brown-grey, less biotite rich material interpreted as more and less pelitic input into this fine grained, well sorted sediment. Upper contact is a fault, lower contact is veined.

368.26 370.14 RHYva Coarse grained to ash tuff medium grey FG

368.26 - 370.14: Grey, black euhedral biotite bearing, massive tuff. Fine grained.

<<Alt: 368.26 - 370.14 Weak Biotite>>

370.14 370.55 PEL Equigranular biotite + calcite +/- quartz rock grey-brown FG

370.14 - 370.55: Dark brown-black unit with bands of biotite rich pelite and light brown-grey, less biotite rich material interpreted as more and less pelitic input into this fine grained, well sorted sediment. Upper contact is sharp and planar, lower contact is veined.

<<Min: 370.14 - 388.79 0.1% Min: Pyrite>>

<<Alt: 370.14 - 370.55 Moderate Calcite>>

<<Alt: 370.16 - 370.55 Moderate-Strong Biotite>>

370.55 371.46 RHYvl Lapilli tuff grey-green FCG

370.55 - 371.46: Unit of lapilli (and feldspar?) and quartz eye bearing, poorly sorted volcaniclastic tuffaceous conglomerate (tephra?)

<<Alt: 370.55 - 381.2 Moderate Silicification>>

<<Alt: 370.55 - 401.02 Weak Calcite>> Locally veinlets set, mainly replacing lapilli.

<<Vein: 370.73 - 371.5 15% Quartz-Carbonate 80 deg. >>

<<Struc: 370.55 - 370.55 Contact>> Contact between pelite and RHYvl

371.46 385.27 RHYva Coarse grained to ash tuff grey-green FMG

371.46 - 385.27: Fine grained ashy tuff unit with rare bands of lapilli and black, euhedral biotite porphyroblasts. Rare quartz eyes. Few PO/PY stringers, QZ veins, Narrow fine grain BI rich layers, probably pelite, associated with CA veinlets.

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

<<Alt: 373.5 - 381.2 Weak Biotite>>

<<Alt: 381.2 - 413.22 Weak-Moderate Silicification>>

<<Vein: 382.1 - 388.79 Quartz-Carbonate>> Multiple QZ/CA veins representing 10% of the interval. Associated with very fine grain unit/few CL.

<<Struc: 374.5 - 374.5 dominant foliation>> Break surface of a foliation parallel vein

<<Struc: 377.42 - 377.43 dominant foliation>>

385.27 388.79 RHY undifferentiated rhyolite medium grey VFG

385.27 - 388.79: Very fine grained or obscured texture matrix, BI porphyroblasts. Possibly ash.

<<Struc: 386.82 - 386.83 dominant foliation>>

<<Struc: 388.32 - 388.79 Weak Fault>> Narrow fault gouge interval and Qz vein.

388.79 401.02 RHYvl Lapilli tuff grey-green FMG

388.79 - 401.02: Muscovite-Biotite, locally granular texture, PO/PY stringers and subhedral patch, possibly fine crystals.

<<Min: 388.79 - 392.5 1% Min: Pyrite>>

<<Min: 388.79 - 392.5 0.5% Min: Pyrrhotite>>

<<Min: 392.5 - 401.55 3% Min: Pyrite>> Stringers.

<<Min: 392.5 - 425.96 0.5% Min: Pyrrhotite>>

<<Alt: 391.3 - 439 Weak-Moderate Biotite>>

<<Struc: 392.12 - 392.21 Trace Fault>> Fault gouge.

<<Struc: 393.55 - 393.56 dominant foliation>>

<<Struc: 397.44 - 397.45 dominant foliation>>

<<Struc: 399.85 - 399.86 dominant foliation>>

401.02 412.40 RHYvx Quartz and/or feldspar crystal tuff grey-green MG

401.02 - 412.4: Medium, locally coarse grained, CL patch, PY/PO stringers and patch, fine grained feldspar, quartz eyes, few BI porphyroblasts patchy.

<<Min: 401.55 - 425.96 0.5% Min: Pyrite>> and in QZ vein.

<<Min: 401.55 - 425.96 0.1% Min: Chalcopyrite>> and in QZ vein.

<<Alt: 401.02 - 407 Trace Calcite>>

<<Alt: 407 - 472.28 Weak Calcite>> Disseminated and moderate/pervasive in BI rich intervals.

<<Vein: 401.55 - 401.73 Quartz-Carbonate>> QZ/CA/CL, PY stringers at upper contact.

<<Vein: 408 - 408.03 Quartz-Tourmaline>> QZ/TM, wavy vein.

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

412.40 413.22 PEL Equigranular biotite + calcite +/- quartz rock beige FG

412.4 - 413.22: Possibly mafic dyke. Fine grain BI, CA veinlets and in matrix, homogeneous, sharp contacts.

413.22 420.42 RHY undifferentiated rhyolite dark grey VFG

413.22 - 420.42: Very fine grained or obscured texture, BI porphyroblasts (25 to 35%) locally altered CL.

<<Alt: 413.22 - 421.29 Trace Chlorite>> Partially replacing BI

<<Alt: 413.22 - 422.55 Moderate-Strong Silicification>>

<<Struc: 413.22 - 413.23 Contact>> Contact PEL/RHY

420.42 421.29 PEL Equigranular biotite + calcite +/- quartz rock black FG

420.42 - 421.29: CA/BI rich, sharp upper contact, gradual lower contact.

421.29 432.28 RHYva Coarse grained to ash tuff dark grey FMG

421.29 - 432.28: Fine to medium grain, BI porphyroblasts,. PO/few CP stringers, patchy CL halo, CL rich from 424.85 to 425.96, possibly pelite CL (granular texture/CA/BI). Locally coarser texture patch "wrapped" by foliation (pebble size clasts?).

<<Min: 422.5 - 423 0.1% Min: Sphalerite>> In QZ vein.

<<Min: 422.5 - 423 0.1% Min: Galena>> In QZ vein.

<<Min: 425.96 - 438.65 0.5% Min: Pyrite>> and associated with PO.

<<Min: 425.96 - 438.65 2% Min: Pyrrhotite>>

<<Alt: 424.85 - 425.96 Weak Chlorite>>

<<Alt: 425.96 - 432.28 Weak-Moderate Silicification>>

<<Alt: 425.96 - 432.28 Trace Chlorite>> Associated with stringers.

<<Vein: 422.55 - 422.85 Quartz-Sulphide>> Massive QZ vein containing PO/SP/CP/GL in fracture.

<<Vein: 431.55 - 438 Quartz-Carbonate>> Multiple QZ/probably late CA/CL veins representing 25% of the interval. Associated with chloritic unit/BI porphyroblasts (pelite chl?)

432.28 438.65 RHY undifferentiated rhyolite medium grey VFG

432.28 - 438.65: Chaotic interval marked by wavy QZ and QZ/CA veins and whitish/beige mineral (?), CL alteration, narrow interval containing PO stringers. Sharp contact with narrow RHY (very fine grain or obscured texture matrix/Bippo). Probably late CA (crosscut QZ veins).

<<Min: 436.06 - 436.6 2% Min: Pyrrhotite>> Stringers.

<<Alt: 432.28 - 438.65 Weak-Moderate Chlorite>>

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

438.65 456.40 RHYvl Lapilli tuff medium grey MCG

438.65 - 456.4: Locally silicic bands, probably large lapilli. Could be porphyry gradual contacts suggest volcaniclastic unit.

<<Min: 438.65 - 445.5 1% Min: Pyrite>>

<<Min: 438.65 - 445.5 0.5% Min: Pyrrhotite>>

<<Min: 445.5 - 450.02 3% Min: Pyrite>> and patchy.

<<Min: 445.5 - 450.02 2% Min: Pyrrhotite>> and veinlets.

<<Min: 450.02 - 458.55 0.5% Min: Pyrrhotite>>

<<Min: 450.02 - 472.28 0.5% Min: Pyrite>>

<<Alt: 438.65 - 472.28 Weak Silicification>>

456.40 457.57 RHYv Rhyolite volcaniclastic medium grey MG

456.4 - 457.57: Gradual contact, coarse to fine grain.

457.57 472.28 RHYva Coarse grained to ash tuff medium grey FG

457.57 - 472.28: Few BI porphyroblasts, subrounded to Subangular QE. Containing PO/CP stringers marked by BI patch. Ash layers (no QE) containing 10cm wide clasts of RHYvx/QE (bomb ?). Some intervals altered CL (SP stringers observed), sometime undeveloped CL alteration. Narrow granular silicic bands (large lapilli or disaggregated bands).

<<Min: 458.55 - 475 0.5% Min: Chalcopyrite>> Stringers.

<<Min: 458.55 - 476.52 1% Min: Pyrrhotite>> Stringers.

<<Min: 461.5 - 462.22 1% Min: Sphalerite>> Two stringers in CL altered RHYva.

<<Alt: 461.5 - 472.28 Weak-Moderate Chlorite>> Considered as original due to fine P stringers at 461.50m and QE persisting through. Locally weak to trace, undeveloped.

<<Struc: 458.73 - 458.74 dominant foliation>>

472.28 476.52 MDS Carbonaceous Mudstone & Tuffaceous Mudstone black FG

472.28 - 476.52: Foliated-local crenulation, CA banded. PO disseminated to patchy. Clasts highly calcareous, light grey.

<<Min: 472.28 - 492.02 0.1% Min: Pyrite>> Rare fine stringers.

<<Alt: 472.28 - 476.52 Weak-Moderate Calcite>>

<<Alt: 472.28 - 482.46 Weak-Moderate Silicification>> Silicified mudstone.

476.52 482.46 MDS Carbonaceous Mudstone & Tuffaceous Mudstone black VFG

476.52 - 482.46: Thinly foliated, homogeneous texture, rare CA bands, undeformed. QZ veins (containing PO) or pods from 478.09m to 482.46m, local deformation, cherty. Mafic tuff clasts or bands.

<<Min: 476.52 - 482.46 2% Min: Pyrrhotite>>

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

<<Alt: 476.52 - 482.46 Weak Calcite>> Associated with QZ in veins.

<<Vein: 478.09 - 483.4 Quartz-Carbonate>> Multiple QZ/CA veins representing 20 percent of the interval.

482.46 485.79 CHT Chert black VFG

482.46 - 485.79: Well developed chert. PO disseminated. MDS/SI interbedded.

<<Alt: 482.46 - 485.79 Strong Silicification>> Chert, possibly silicification.

<<Struc: 485.32 - 485.33 dominant foliation>>

485.79 492.02 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

485.79 - 492.02: Weakly CA banded, veinlets.

<<Min: 485.79 - 506 0.5% Min: Pyrrhotite>>

<<Alt: 485.79 - 493.62 Weak-Moderate Silicification>> Silicified mudstone.

<<Alt: 485.79 - 503.8 Weak-Moderate Calcite>>

<<Struc: 487.13 - 487.14 dominant foliation>>

492.02 494.84 MAFta Coarse grained to ash tuff green FG

492.02 - 494.84: Heterogeneous. Chloritic fine grained matrix. Locally siliceous clasts. BI/CA patch/veins. Few QZ veins. Sharp lower contact.

<<Min: 492.02 - 517.14 0.1% Min: Pyrite>>

<<Vein: 493.12 - 493.4 Carbonate-Biotite>> BI/CA patch.

<<Struc: 493.17 - 497.18 dominant foliation>>

494.84 495.55 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

494.84 - 495.55: CA veining/blabs. Crenulated foliation (primary foliation or bedding relics). Gradual lower contact.

495.55 497.95 MAFt Mafic Volcaniclastics green FG

495.55 - 497.95: Fine grained cholritic matrix, medium grain clasts (lapilli CA altered). Ashy layers at upper contact. Could be mafic dike, possibly chill margin at lower contact.

<<Struc: 497.16 - 497.17 dominant foliation>>

497.95 502.02 SLT Siltstone - fine-grained sedimentary rock light grey MG

497.95 - 502.02: Could be RHYva/QE. Cholritic content at upper contact fading out downhole. Locally coarser grains. Some MAFt patch intervals (class or beds).

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

502.02 503.80 MAFt Mafic Volcaniclastics green FG

502.02 - 503.8: Fine grained chloritic matrix, medium grained clasts (lapilli altered CA), BI and CA bands.

503.80 511.30 SLT Siltstone - fine-grained sedimentary rock light grey FMG

503.8 - 511.3: Or RHYva/QE. Granular texture, weakly chloritic at upper contact. BI porphyroblasts patches.

<<Min: 506 - 511.3 2% Min: Pyrrhotite>>

<<Alt: 503.8 - 569.79 Weak Calcite>>

511.30 515.60 SED undifferentiated Sediment dark grey FMG

511.3 - 515.6: QZ/BI/MU unit, intermediate composition, locally chloritic (or green sericite(?)). Mottled texture and clasts at upper contact, biotite rich. Could be volcaniclastic.

<<Min: 511.3 - 517.14 0.5% Min: Pyrrhotite>>

515.60 517.14 MDS Carbonaceous Mudstone & Tuffaceous Mudstone beige FG

515.6 - 517.14: Black, fine grained, foliated, few CA bands. QZ vein at upper contact/bleaching, sharp lower contact, Multiple QZ/A vein (2 to 5cm wide).

<<Vein: 516.65 - 517.14 Quartz-Carbonate>> Multiple QZ and QZ/CA veins representing 30 % of the interval.

517.14 517.75 RHYva Coarse grained to ash tuff light grey FG

517.14 - 517.75: Abundant QE eyes at upper contact. Gradual lower contact. Fine grain matrix,

<<Min: 517.14 - 525.94 1% Min: Pyrite>> In fracture.

<<Min: 517.14 - 525.94 2% Min: Pyrrhotite>> In fracture.

<<Struc: 517.68 - 517.69 dominant foliation>>

517.75 518.18 RHY undifferentiated rhyolite light grey

517.75 - 518.18: Texture obscured, coarser aspect/granular to massive, almost coherent rhyolite, silica rich, few QZ eyes. Sulphide in fracture (RHYc?).

518.18 520.58 RHYva Coarse grained to ash tuff light grey FG

518.18 - 520.58: Abundant small QE eyes at upper contact. Gradual lower contact. Fine grain matrix, Including fine grained, light blue, probably ash (40 c interval).

520.58 523.02 RHY undifferentiated rhyolite leucocratic

520.58 - 523.02: Texture obscured, coarser grained/granular to massive, almost coherent rhyolite, silica rich, few QZ eyes. Possibly fracture containing PO. Glassy from 522.66m to 523.02m. Sulphides in fracture (RHYc?).

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

523.02 523.56 RHYva Coarse grained to ash tuff leucocratic FG

523.02 - 523.56: Fine grained matrix, few lapilli. Few QE.

523.56 525.21 RHYva Coarse grained to ash tuff medium grey FG

523.56 - 525.21: Fine grained, biotite patch and in foliation. Gradual contacts.

<<Struc: 524.75 - 524.76 dominant foliation>>

<<Struc: 525.15 - 525.16 dominant foliation>>

525.21 525.65 RHYvl Lapilli tuff light grey FMG

525.21 - 525.65: Mid strained lapilli in fine to fine to medium grained matrix.

525.65 525.94 INT undifferentiated (granitic) intrusive rocks beige VFG

525.65 - 525.94: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Less possibly homogeneous fine grained sandstone channel.

525.94 526.38 RHYva Coarse grained to ash tuff medium grey FG

525.94 - 526.38: With pelitic content marked by biotite.

<<Min: 525.94 - 556.07 0.5% Min: Pyrrhotite>>

<<Min: 525.95 - 542.92 0.5% Min: Pyrite>> and few disseminated.

526.38 526.58 INT undifferentiated (granitic) intrusive rocks beige VFG

526.38 - 526.58: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Less possibly homogeneous fine grained sandstone channel.

526.58 526.80 RHYva Coarse grained to ash tuff medium grey FG

526.58 - 526.8: With pelitic content marked by biotite.

526.80 527.13 INT undifferentiated (granitic) intrusive rocks beige VFG

526.8 - 527.13: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Feldspar phenocrysts.

527.13 530.02 SED undifferentiated Sediment medium grey FG

527.13 - 530.02: Some clasts could be lapilli. Heterogeneous composition. BI small porphyroblasts elongated.

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

530.02 530.21 INT undifferentiated (granitic) intrusive rocks beige FG

530.02 - 530.21: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Less possibly homogeneous fine grained sandstone.

530.21 532.12 RHYva Coarse grained to ash tuff medium grey FG

530.21 - 532.12: Few BI porphyroblasts, bleached lower contact, possibly chill margin.

<<Vein: 532 - 532.15 Quarzt-Tourmaline-Sulphide 48 deg. >> Veins, different composition, from possibly TML to glassy silica with phenocrysts and sulfides, marking the contact on sheared/fault zone.

<<Struc: 532 - 534.15 Moderate Shear>> Measurement from the upper contact between rhyolite and sheared/faulted zone (marked by veins) and probably intrusive felsic unit.

532.12 534.15 INT undifferentiated (granitic) intrusive rocks light grey

532.12 - 534.15: Faulted/sheared possibly felsic dyke containing lapilitic rhyolite clasts. Upper contact showing wavy veining, maybe TML, glassy with crystals and inclusion (?) amygdaloidal. Large chill margin at upper contact.

534.15 539.31 PEL Equigranular biotite + calcite +/- quartz rock grey-green FMG

534.15 - 539.31: Biotite/chlorite/feldspar unit. Could be mafic dyke. Similar by some aspect with mafic sill but low carbonate content.

539.31 539.83 INT undifferentiated (granitic) intrusive rocks beige FG

539.31 - 539.83: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Biotite needles overprinted.

539.83 540.44 PEL Equigranular biotite + calcite +/- quartz rock grey-green FMG

539.83 - 540.44: Biotite/chlorite/feldspar unit. Could be mafic dyke. Similar by some aspect with mafic sill but low carbonate content.

<<Struc: 540.33 - 540.34 Contact>> Upper contact with aplitic dyke in pelite.

540.44 540.57 INT undifferentiated (granitic) intrusive rocks beige FG

540.44 - 540.57: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Feldspar phenocrysts. Biotite needles overprinted.

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

540.57 542.92 PEL Equigranular biotite + calcite +/- quartz rock black FMG

540.57 - 542.92: Biotite/chlorite/feldspar unit. Could be mafic dyke. Similar by some aspect with mafic sill but low carbonate content.

542.92 544.55 RHYva Coarse grained to ash tuff medium grey FG

542.92 - 544.55: Bleached upper contact possibly due to QZ vein. Small BI porphyroblasts.

<<Min: 542.92 - 699.71 0.1% Min: Pyrite>> Rare, in fracture.

<<Alt: 542.92 - 556.07 Weak-Moderate Silicification>>

544.55 544.71 INT undifferentiated (granitic) intrusive rocks beige VFG

544.55 - 544.71: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Feldspar phenocrysts ghosts. Biotite needles overprinted.

544.71 545.65 RHYvl Lapilli tuff medium grey FMG

544.71 - 545.65: Well developed BI porphyroblasts, lapilli in fine grained matrix.

545.65 548.66 RHYva Coarse grained to ash tuff medium grey FG

545.65 - 548.66: Pelitic content marked by biotite in foliation.

548.66 548.79 INT undifferentiated (granitic) intrusive rocks beige VFG

548.66 - 548.79: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Biotite needles overprinted.

548.79 550.15 RHYva Coarse grained to ash tuff medium grey FG

548.79 - 550.15: Pelitic content marked by biotite in foliation.

550.15 550.26 INT undifferentiated (granitic) intrusive rocks beige VFG

550.15 - 550.26: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke.

550.26 556.07 RHYva Coarse grained to ash tuff medium grey FG

550.26 - 556.07: Few lapilli. Pelitic content marked by biotite in foliation. Silicic bands at lower contact from 555.13m.

<<Struc: 551.26 - 551.27 dominant foliation>>

<<Struc: 556.06 - 556.07 Contact>> Upper contact pelite/rhyolite.

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

556.07 560.55 PEL Equigranular biotite + calcite +/- quartz rock black FG

556.07 - 560.55: Homogeneous texture, crosscut by milky QZ veins and aplitic dyke (?).

<<Min: 556.07 - 558.43 1% Min: Pyrrhotite>> and in veinlets.

<<Min: 558.43 - 569.79 0.1% Min: Pyrrhotite>> Concentrated in rare pelite bands.

<<Alt: 558.43 - 569.79 Weak-Moderate Silicification>>

560.55 562.77 INT undifferentiated (granitic) intrusive rocks beige VFG

560.55 - 562.77: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Feldspar phenocrysts.

<<Struc: 561.41 - 561.42 dominant foliation>>

562.77 565.45 RHYvl Lapilli tuff medium grey FG

562.77 - 565.45: Rare crystals. Large lapilli poorly sorted in fine grained matrix. Marrow pelitic intervals (10cm and less wide).

<<Struc: 565.08 - 565.09 Contact>> Lower contact narrow pelite/lapilitic ash tuff.

565.45 565.86 INT undifferentiated (granitic) intrusive rocks beige VFG

565.45 - 565.86: Light color, very sharp contacts, siliceous, fine crystals. Probably intrusive aplitic unit/felsic dyke. Feldspar phenocrysts.

565.86 569.79 RHYv Rhyolite volcaniclastic medium grey FG

565.86 - 569.79: Fine grained matrix, rare QE, silicic bands at lower contact.

<<Struc: 566.62 - 566.62 dominant foliation>>

569.79 572.30 PEL Equigranular biotite + calcite +/- quartz rock black FG

569.79 - 572.3: Black, fine grain biotite, weakly to moderately calcareous, few QZ/CA veins. Gradual upper contact, sharp lower contact.

<<Min: 569.79 - 572.3 0.1% Min: Pyrrhotite>>

<<Alt: 569.79 - 572.3 Weak-Moderate Calcite>>

572.30 578.15 RHYvl Lapilli tuff grey-green MG

572.3 - 578.15: Some fine grained bands (mud or ash?), muscovite content increases at lower contact. Clasts (?) containing QE from 575.13m to 575.31m. Epiclastic sediment, could be logged as SED.

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

<<Min: 572.3 - 578.15 0.1% Min: Pyrrhotite>>

<<Alt: 572.3 - 578.15 Weak-Moderate Silicification>>

<<Alt: 572.3 - 578.15 Trace Calcite>>

<<Struc: 572.32 - 572.33 dominant foliation>>

<<Struc: 575.93 - 575.94 dominant foliation>>

578.15 579.80 PEL Equigranular biotite + calcite +/- quartz rock beige FG

578.15 - 579.8: Black, fine grain. Some rounded CA replaced clasts could be amygdules (mafic dyke (?). Faulted at lower contact. CA veinlets.

<<Min: 578.15 - 594.42 1% Min: Pyrrhotite>>

<<Alt: 578.15 - 594.42 Weak-Moderate Calcite>>

579.80 580.18 RHYvl Lapilli tuff grey-green MCG

579.8 - 580.18: Gougy narrow interval, clastic, coarse, heterogeneous. Epiclastic sediment, could be logged as SED.

<<Struc: 579.8 - 580 Weak Fault>> And weak shearing at contact between pelite and sediments.

580.18 580.45 INT undifferentiated (granitic) intrusive rocks beige VFG

580.18 - 580.45: Very fine crystals, light color, siliceous (quartzite type unit).

580.45 584.62 PEL Equigranular biotite + calcite +/- quartz rock green-brown FMG

580.45 - 584.62: Biotite rich unit, locally coarse texture/clastic (sediments intercaled).

<<Struc: 581.83 - 581.84 dominant foliation>>

<<Struc: 583.03 - 583.04 dominant foliation>>

<<Struc: 584.54 - 584.55 dominant foliation>>

584.62 584.87 INT undifferentiated (granitic) intrusive rocks beige VFG

584.62 - 584.87: Siliceous, probably intrusive, sharp contact, quartzite (?).

584.87 587.52 PEL Equigranular biotite + calcite +/- quartz rock black FG

584.87 - 587.52: Fine grain biotite, weakly to moderately calcareous.

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

587.52 589.33 RHYvl Lapilli tuff grey-green MCG

587.52 - 589.33: Siliceous, strained clasts (lapilli (?)), heterogeneous, conglomerate texture, biotite porphyroblasts. Maybe intermediate composition volcaniclastic unit. Epiclastic sediment, could be logged as SED.

589.33 594.42 PEL Equigranular biotite + calcite +/- quartz rock black FG

589.33 - 594.42: Fine grain biotite, weakly to moderately calcareous, phenocrysts feldspar, sharp at upper contact replaced calcite (late crystallization). Possibly mafic unit but narrow sediment interval from 592.90m to 593.00m suggests sedimentary origin.

594.42 595.25 RHYvl Lapilli tuff grey-green FMG

594.42 - 595.25: Muscovite/sericite rich matrix, locally conglomerate texture with possibly mid strained lapilli, heterogeneous. Intermediate volcaniclastic unit or sediment.

<<Min: 594.42 - 635.84 0.1% Min: Pyrrhotite>>

<<Alt: 594.42 - 608.45 Weak Silicification>>

<<Alt: 594.42 - 638.97 Trace Calcite>>

595.25 595.46 INT undifferentiated (granitic) intrusive rocks beige VFG

595.25 - 595.46: Siliceous, fine crystals, sharp contacts, quartzite aspect.

595.46 599.77 RHYvl Lapilli tuff grey-green MG

595.46 - 599.77: Muscovite/sericite rich matrix, locally conglomerate texture with possibly mid strained lapilli, heterogeneous. Intermediate volcaniclastic unit or sediment.

<<Struc: 595.5 - 599.5 Trace Fault>> Multiple narrow gouge (2 to 5 cm wide). Minor.

599.77 608.45 RHYva Coarse grained to ash tuff dark grey FMG

599.77 - 608.45: Muscovite/sericite rich matrix, few clasts (possibly lapilli). Epiclastic sediment, could be logged as SED.

<<Struc: 603.58 - 603.59 dominant foliation>>

<<Struc: 604.86 - 604.87 dominant foliation>>

<<Struc: 608.3 - 608.31 dominant foliation>>

608.45 612.26 RHYvx Quartz and/or feldspar crystal tuff dark grey VFG

608.45 - 612.26: Silicified unit showing feldspar and quartz porphyry (1 to 3mm, automorph) in a granular to granophyric texture. Could be intrusive (INT-large felsic dyke). Sharp upper contact.

<<Alt: 608.45 - 613.46 Intense Silicification>> Quartzite (?).

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

612.26 613.46 INT undifferentiated (granitic) intrusive rocks light grey VFG

612.26 - 613.46: Probably same unit than above, strongly silicified, bleached, very fine crystals (granophyric), few feldspar ghosts preserved. Could be silicified crystal tuff.

613.46 616.28 RHYva Coarse grained to ash tuff medium grey FG

613.46 - 616.28: Intermediate ash tuff.

<<Alt: 613.46 - 649.31 Weak Silicification>>

<<Struc: 613.8 - 613.81 dominant foliation>>

616.28 623.25 RHYva Coarse grained to ash tuff medium grey FMG

616.28 - 623.25: Lapilli at upper contact. Probably epiclastic sediments, Biotite porphyroblasts, heterogeneous composition, some clasts, dominantly fine grain matrix.

<<Struc: 616.4 - 616.41 dominant foliation>>

<<Struc: 620.35 - 625.36 dominant foliation>>

623.25 624.02 SLT Siltstone - fine-grained sedimentary rock beige FG

623.25 - 624.02: Fine grain, homogeneous, felsic, biotite porphyroblasts overprinted.

624.02 628.14 RHYvl Lapilli tuff medium grey

624.02 - 628.14: Heterogeneous, pebble size clasts, poorly sorted, locally granular, containing elongated silica clasts possibly lapilli. Interpreted as reworked material-epiclastic sediment. Epiclastic sediment, could be logged as SED.

628.14 628.43 PEL Equigranular biotite + calcite +/- quartz rock black VFG

628.14 - 628.43: Very fine grain biotite, homogeneous.

628.43 629.30 RHYvl Lapilli tuff dark grey CG

628.43 - 629.3: Coarse grain, pebble size clasts, conglomerate texture, muscovite/sericite matrix. Epiclastic sediment, could be logged as SED.

629.30 630.06 RHYva Coarse grained to ash tuff dark grey FG

629.3 - 630.06: Fine grain, homogeneous, biotite porphyroblasts.

<<Struc: 629.75 - 629.76 dominant foliation>>

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

630.06 635.84 RHYvl Lapilli tuff dark grey MG

630.06 - 635.84: Conglomerate texture, heterogeneous. Siliceous clasts, white, containing rare phenocrysts (porphyry clasts/lapilli (?)). Epiclastic sediment, could be logged as SED.

<<Struc: 633.2 - 633.21 dominant foliation>>

635.84 636.15 PEL Equigranular biotite + calcite +/- quartz rock black FG

635.84 - 636.15: Fine grain biotite containing angular, poorly sorted clasts or porphyroblasts (possibly rhyolite clasts, deformed bands observed inside/tube pumice (?)), heterogeneous. Wavy contacts contouring clasts suggesting sedimentary sequence.

<<Min: 635.84 - 636.15 2% Min: Pyrrhotite>>

636.15 638.97 RHYv Rhyolite volcaniclastic dark grey FMG

636.15 - 638.97: Heterogeneous, locally granular. Some clasts, matrix supported. Sharp lower contact.

<<Min: 636.84 - 657.53 0.1% Min: Pyrrhotite>>

638.97 639.52 PEL Equigranular biotite + calcite +/- quartz rock black FG

638.97 - 639.52: Fine grain biotite, sharp contacts, granular o the upper part. Thinly foliated.

<<Alt: 638.97 - 639.52 Weak Calcite>>

639.52 641.47 PEL Equigranular biotite + calcite +/- quartz rock dark grey FG

639.52 - 641.47: Biotite bands/ash tuff thinly interbedded, heterogeneous composition. Locally granular and felsic intervals.

<<Alt: 639.52 - 649.31 Trace Calcite>>

641.47 641.84 INT undifferentiated (granitic) intrusive rocks beige FG

641.47 - 641.84: Siliceous intervals, granular(or granophyric), possibly felsic dyke but sharp contact, no chill margin. Maybe sandstone channel crosscutting muddy pelitic sequence.

641.84 644.59 RHYv Rhyolite volcaniclastic medium grey FG

641.84 - 644.59: Fine grain matrix containing few rhyolite clasts and/or lapilli. Gradual upper upper contact, sharp lower contact.

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

644.59 649.31 PEL Equigranular biotite + calcite +/- quartz rock dark grey FG

644.59 - 649.31: Biotite bands/ash tuff thinly interbedded, heterogeneous composition. Locally granular and felsic intervals. Felsic dyke/sandstone/quartzite from 648.42m to648.61m. Sharp contacts.

<<Struc: 644.8 - 644.81 dominant foliation>>

649.31 654.87 SLT Siltstone - fine-grained sedimentary rock beige FG

649.31 - 654.87: Siliceous unit, locally texture changes from fine grain to granular. Containing pelite interval crosscut by narrow felsic interval. Sediment bands at lower contact suggests that al the unit is sedimentary (interpreted as meta sandstone).

<<Alt: 649.31 - 654.87 Strong Silicification>> Quartzite (?).

<<Alt: 649.31 - 657.53 Weak Calcite>>

654.87 656.90 PEL Equigranular biotite + calcite +/- quartz rock black FG

654.87 - 656.9: Possibly mafic dyke but no chill margin. Angular clasts/late porphyroblasts. Sharp upper and lower contacts. Weakly calcareous.

<<Struc: 656.79 - 656.8 Contact>> Contact between felsic dyke/narrow sandstone unit and RHYv.

<<Struc: 656.85 - 656.86 dominant foliation>>

656.90 657.53 RHYv Rhyolite volcaniclastic grey-brown FG

656.9 - 657.53: Light grey, dominantly ash tuff, banded (strongly strained lapilli (?). Containing a 15cm wide siliceous interval (intrusive or sandy/quartzite).

657.53 659.96 PEL Equigranular biotite + calcite +/- quartz rock black FMG

657.53 - 659.96: Moderately calcareous. Porphyroblasts replaced calcite over 12cm at upper contact. Heterogeneous at upper contact, locally granular.

<<Min: 657.53 - 659.96 0.5% Min: Pyrrhotite>>

<<Alt: 657.53 - 659.96 Weak-Moderate Calcite>>

659.96 666.47 RHY undifferentiated rhyolite light grey VFG

659.96 - 666.47: Siliceous unit, very fine grain, few silica clasts (possibly lapilli). Could be log as RHYc/RHYi. Probably RHYva silicified or siltstone. Weakly calcareous. One light yellow band, very fine grain, possibly mud clasts suggesting sedimentary unit.

<<Min: 659.96 - 669.78 0.5% Min: Pyrrhotite>>

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

<<Alt: 659.96 - 666.47 Strong Silicification>>

<<Alt: 659.96 - 669.78 Trace Calcite>>

666.47 667.71 PEL Equigranular biotite + calcite +/- quartz rock black FMG

666.47 - 667.71: Interbedded with RHYva.

667.71 668.64 SLT Siltstone - fine-grained sedimentary rock beige VFG

667.71 - 668.64: Fine grain, homogeneous, siliceous. Possibly meta siltstone.

668.64 669.78 RHY undifferentiated rhyolite light grey FG

668.64 - 669.78: Siliceous unit, very fine grain, few silica clasts (possibly lapilli). Could be log as RHYc/RHYi. Probably RHYv silicified or siltstone. Weakly calcareous.

669.78 671.76 PEL Equigranular biotite + calcite +/- quartz rock black

669.78 - 671.76: Different grain size bands, heterogeneous texture, calcareous.

<<Alt: 669.78 - 671.76 Weak-Moderate Calcite>>

671.76 674.34 RHY undifferentiated rhyolite light grey FG

671.76 - 674.34: Siliceous or silicified unit, fine grin. Could be ash tuff or siltstone. Could be log as RHYc/RHYi. Pinkish patches, possible albite alteration.

<<Alt: 671.76 - 674.34 Strong Silicification>>

<<Alt: 671.76 - 674.34 Weak Calcite>>

674.34 676.66 PEL Equigranular biotite + calcite +/- quartz rock black

674.34 - 676.66: Different grain size bands, heterogeneous texture, calcareous.

<<Min: 674.5 - 699.71 0.5% Min: Pyrrhotite>>

<<Alt: 674.34 - 680.64 Trace Calcite>>

676.66 680.64 RHYva Coarse grained to ash tuff medium grey FG

676.66 - 680.64: Some banded silica rich patch with obscured texture.

<<Alt: 676.66 - 680.64 Weak Silicification>>

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

680.64 683.15 PEL Equigranular biotite + calcite +/- quartz rock black FG

680.64 - 683.15: Weakly to moderately calcareous, CA veinlets, Fine grain and coarser grain bands.

<<Alt: 680.64 - 683.15 Moderate Calcite>>

683.15 686.35 RHYv Rhyolite volcaniclastic medium grey FG

683.15 - 686.35: Pelite interval from 685.65m to 685.96m. Could be SED/heterogeneous texture.

<<Alt: 683.15 - 698.27 Trace Calcite>>

<<Struc: 685.07 - 685.08 dominant foliation>>

<<Struc: 685.65 - 685.66 Contact>> Contact RHYv/PEL.

686.35 688.30 PEL Equigranular biotite + calcite +/- quartz rock black MG

686.35 - 688.3: Weakly calcareous, sorted bands.

688.30 692.27 RHYva Coarse grained to ash tuff medium grey FG

688.3 - 692.27: Fine grain, few biotite porphyroblasts, homogeneous.

692.27 694.35 PEL Equigranular biotite + calcite +/- quartz rock black FMG

692.27 - 694.35: Weakly calcareous, homogeneous, faulted at upper contact.

<<Alt: 694.27 - 698.27 Weak Silicification>>

694.35 698.27 RHYva Coarse grained to ash tuff medium grey FG

694.35 - 698.27: Pelite from 695.89m to 69630m and some siliceous interval showing obscured texture.

698.27 699.74 PEL Equigranular biotite + calcite +/- quartz rock black FG

698.27 - 699.74: Homogeneous, fine grain, weakly calcareous.

<<Min: 699.71 - 704.5 0.5% Min: Pyrrhotite>>

<<Min: 699.71 - 720.27 1% Min: Pyrite>> Local aggregated euhedral crystal.

<<Alt: 698.27 - 699.74 Weak-Moderate Calcite>>

699.74 703.27 RHYv Rhyolite volcaniclastic grey-brown FG

699.74 - 703.27: Chaotic volcaniclastic interval containing abundant QZ veins/pods-muscovite halo/silicic bands.

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

<<Alt: 699.74 - 704.55 Weak Muscovite>> Associated with QZ veins/pods.

<<Alt: 699.74 - 706 Moderate Silicification>>

<<Alt: 699.74 - 706.13 Trace Calcite>>

<<Vein: 699.74 - 704.55 Quartz>> Multiple QZ veins and pods representing 25% of the interval associated with MU alteration.

<<Struc: 702.7 - 703.6 Trace Shear>> Weak deformation along QZ veins.

703.27 703.62 PEL Equigranular biotite + calcite +/- quartz rock black FG

703.27 - 703.62: Weakly sheared.

703.62 706.13 RHYv Rhyolite volcaniclastic grey-green FG

703.62 - 706.13: Rare silica clasts, fine grain. Probably ash tuff.

<<Min: 704.5 - 720.27 0.1% Min: Pyrrhotite>>

<<Alt: 704.55 - 714.5 Trace Muscovite>>

<<Struc: 706 - 706.01 dominant foliation>>

706.13 706.69 PEL Equigranular biotite + calcite +/- quartz rock black

706.13 - 706.69: Grains or crystals aggregated in bands. CA veins, moderately calcareous.

<<Alt: 706.13 - 706.69 Weak-Moderate Calcite>> and bands.

706.69 710.50 RHYvl Lapilli tuff grey-green FG

706.69 - 710.5: Locally sericite/muscovite matrix bands showing clasts. Possibly reworked volcaniclastic (or sediment). Heterogeneous composition, texture mostly obscured..

<<Alt: 706.69 - 720.27 Trace Calcite>>

710.50 720.27 RHYv Rhyolite volcaniclastic medium grey MCG

710.5 - 720.27: Coarse grain dominantly, some QZ clasts (lapilli?), PY disseminated, possibly large clasts (pumice silicified?) showing obscured texture. BI needles, rare QE.

720.27 729.12 PEL Equigranular biotite + calcite +/- quartz rock

720.27 - 729.12: Homogeneous, poorly calcareous, rare rhyolite bands intercaled, PY disseminated from 728.50m to lower contact, large euhedral crystals observed, CA veinlets.

<<Min: 720.27 - 729.72 0.1% Min: Pyrite>>

<<Min: 720.27 - 729.72 2% Min: Pyrrhotite>>

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

<<Alt: 720.27 - 729.72 Weak Calcite>> and bands (veinlets).

729.12 735.65 RHYvl Lapilli tuff light grey FMG

729.12 - 735.65: Rhyolite and pelite intercaled. QZ bands/silicic bands, chaotic texture, PY disseminated. Pelite from 730.16m to 730.76m and from 732.32m to 730.03m.

<<Min: 729.72 - 750 2% Min: Pyrite>> Euhedral, large crystals in pelite, aggregated/discontinuous bands in rhyolite.

<<Min: 729.72 - 752.54 0.5% Min: Pyrrhotite>>

<<Alt: 729.72 - 752.54 Trace Calcite>> In pelite units.

<<Vein: 729.72 - 732 Quartz>> Multiple QZ veins/silicic bands representing 20% of the interval.

<<Struc: 735.1 - 735.5 Weak Fault>> Minor fault gouge.

735.65 736.20 PEL Equigranular biotite + calcite +/- quartz rock black FG

735.65 - 736.2: Fine grain matrix, white mineral clasts or phenocrysts (replaced calcite), possibly amygdules.

736.20 737.00 RHYv Rhyolite volcaniclastic medium grey MG

736.2 - 737: Dirty rhyolite.

737.00 737.60 PEL Equigranular biotite + calcite +/- quartz rock black FG

737 - 737.6: Fine grain, homogeneous.

737.60 742.48 RHYv Rhyolite volcaniclastic medium grey

737.6 - 742.48: Probably epiclastic. Dirty rhyolite, Biotite bands, heterogeneous texture (various grain size bends). Some CL blebs and muscovite alteration trace.

<<Alt: 739.3 - 742.48 Trace Muscovite>>

<<Alt: 739.3 - 742.48 Trace Chlorite>> And/or green sericite.

<<Vein: 741.45 - 750.3 Quartz>> Multiple QZ blebs/veins representing 10% of the interval.

742.48 743.26 PEL Equigranular biotite + calcite +/- quartz rock black FG

742.48 - 743.26: Fine grain, homogeneous, sharp contacts.

743.26 752.54 RHYv Rhyolite volcaniclastic medium grey

743.26 - 752.54: Pelite intercaled. PY disseminated (euhedral dominantly), QZ patches and weak MU alteration. Locally silicic bands/large strained lapilli (?).

<<Min: 750 - 764 0.5% Min: Pyrite>>

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

<<Alt: 746.5 - 749.5 Weak Muscovite>> Associated with QZ blebs.

<<Struc: 745.1 - 745.11 dominant foliation>>

<<Struc: 745.76 - 745.77 dominant foliation>>

752.54 758.76 PEL Equigranular biotite + calcite +/- quartz rock black FG

752.54 - 758.76: Including rhyolitic intervals intercaled. Homogeneous, fine grain, sharp contacts.

<<Min: 752.54 - 765.15 1% Min: Pyrrhotite>>

<<Alt: 752.54 - 755.34 Weak Calcite>>

<<Alt: 755.34 - 756.04 Trace Calcite>>

<<Alt: 756.04 - 758.76 Weak Calcite>>

758.76 765.15 RHYva Coarse grained to ash tuff medium grey FMG

758.76 - 765.15: Dominantly fine grain, heterogeneous texture. Some clasts aggregated suggesting multiple sorted interval sequences (coarse grain/fine grain).

<<Min: 764 - 780.82 0.1% Min: Pyrite>>

<<Alt: 758.76 - 766.52 Trace Calcite>>

<<Struc: 762.15 - 762.16 dominant foliation>>

765.15 766.52 RHY undifferentiated rhyolite light grey FG

765.15 - 766.52: Possibly silicified pumice/sericite intercaled.

<<Min: 765.15 - 793.47 0.5% Min: Pyrrhotite>>

<<Alt: 765.15 - 766.52 Moderate-Strong Silicification>>

766.52 767.60 PEL Equigranular biotite + calcite +/- quartz rock black FG

766.52 - 767.6: Fine grain, weakly calcareous.

<<Alt: 766.52 - 767.6 Weak Calcite>>

<<Struc: 767.38 - 767.65 Trace Fault>> Minor fault gouge.

767.60 771.54 RHY undifferentiated rhyolite light grey FG

767.6 - 771.54: Silicic bands/chert (?). Pelite intercaled from 769.61m to 770.01m. Possibly silicified pumice. Ash interval at upper contact.

<<Alt: 767.6 - 771.54 Strong Silicification>>

<<Alt: 767.6 - 772.32 Trace Calcite>>

<<Struc: 770.85 - 770.86 dominant foliation>>

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

771.54 772.32 RHYva Coarse grained to ash tuff light grey FG

771.54 - 772.32: Gradual upper contact.

772.32 775.88 PEL Equigranular biotite + calcite +/- quartz rock black FG

772.32 - 775.88: Rhyolite interval intercaled from 773.80m to 774.08m. Sharp contacts.

<<Alt: 772.32 - 775.88 Weak Calcite>>

<<Alt: 775.08 - 777.7 Weak Muscovite>> Could be original with regard to the color.

<<Struc: 773.56 - 773.61 dominant foliation>>

775.88 779.15 RHYv Rhyolite volcaniclastic dark grey MG

775.88 - 779.15: Dirty rhyolite. Biotite bands, MU alteration trace. Epiclastic sediments (?). Pelite intercaled.

<<Alt: 775.88 - 783.51 Trace Calcite>>

779.15 783.51 SED undifferentiated Sediment dark grey MG

779.15 - 783.51: Or dirty rhyolite. Chaotic unit, wavy QZ veining, weak muscovite associated, PY disseminated (2%). Possibly clasts relics, biotite bands and patches.

<<Min: 780.82 - 785.58 2% Min: Pyrite>>

<<Vein: 780.8 - 782.4 Quartz>> QZ vein patches, 5% of the interval.

<<Struc: 779.35 - 779.36 dominant foliation>>

783.51 785.58 SED undifferentiated Sediment grey-brown FMG

783.51 - 785.58: Banded brown/black, micaceous, mottled texture.

<<Alt: 783.51 - 785.68 Weak Calcite>> and in fracture.

785.58 786.60 PEL Equigranular biotite + calcite +/- quartz rock black VFG

785.58 - 786.6: Very fine grain, calcite in fracture.

<<Min: 785.58 - 793.47 0.5% Min: Pyrite>>

<<Alt: 785.68 - 793.47 Trace Calcite>>

786.60 790.40 SED undifferentiated Sediment grey-brown FMG

786.6 - 790.4: Gradual lower contact. Micaceous, bands/blebs brown/black.

790.40 793.47 RHYva Coarse grained to ash tuff dark grey FMG

790.4 - 793.47: Dirty rhyolite, gradual upper contact.

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

793.47 810.53 PEL Equigranular biotite + calcite +/- quartz rock green-brown FG

793.47 - 810.53: Fine grain, chlorite blebs at upper contact associated with white clasts/porphyroblasts replaced calcite. Chlorite banded intervals, Medium size biotite porphyroblasts, non foliated, homogeneous.

<<Min: 793.47 - 819.74 2% Min: Pyrrhotite>>

<<Min: 793.47 - 854.5 0.1% Min: Pyrite>>

<<Alt: 793.47 - 810.53 Weak Chlorite>>

<<Alt: 793.47 - 810.53 Weak-Moderate Calcite>>

<<Struc: 810.2 - 810.21 dominant foliation>>

810.53 819.75 RHYvl Lapilli tuff light grey FG

810.53 - 819.75: Fine grain matrix, mid strained clasts (lapilli), silicified, biotite porphyroblasts (overprint). Disseminated garnet (orange/pink-amandine (?)) subhedral, well developed. Sharp upper contact, gradual lower contact.

<<Min: 819.74 - 854.5 1% Min: Pyrrhotite>>

<<Alt: 810.53 - 819.75 Moderate-Strong Silicification>>

<<Alt: 811.8 - 818.4 Moderate Garnet>> Probably not original(not associated with muscovite or chlorite).

<<Struc: 811.56 - 811.57 dominant foliation>>

<<Struc: 817.63 - 817.64 dominant foliation>>

819.75 826.83 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey VFG

819.75 - 826.83: CA banded, narrow mafic tuff intervals, locally mixed. Biotite in foliation. Sharp lower contact.

<<Alt: 819.75 - 828.63 Moderate-Strong Calcite>>

<<Vein: 820.46 - 820.8 Quartz>> QZ vein/pod in mafic tuff interval.

<<Struc: 821.35 - 821.36 dominant foliation>>

<<Struc: 824.45 - 824.46 dominant foliation>>

826.83 827.25 MAFt Mafic Volcaniclastics green FG

826.83 - 827.25: Sharp contact, homogeneous, biotite porphyroblasts, non foliated.

827.25 828.63 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey VFG

827.25 - 828.63: CA banded, narrow mafic tuff intervals, locally mixed. Biotite in foliation

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

828.63 846.04 MAFt Mafic Volcaniclastics green FG

828.63 - 846.04: Homogeneous, weak biotite content, banded BI/CA at upper contact.

<<Min: 829.3 - 831 0.1% Min: Galena>> I QZ vein.

<<Alt: 828.63 - 846.04 Weak-Moderate Calcite>>

<<Vein: 829.3 - 831 Quartz>> Multiple narrow QZ vein, GL trace representing 20% of the interval.

<<Struc: 829.92 - 829.93 dominant foliation>>

<<Struc: 835.43 - 835.44 dominant foliation>>

<<Struc: 839.71 - 839.72 dominant foliation>>

<<Struc: 843.6 - 843.61 dominant foliation>>

846.04 848.38 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey VFG

846.04 - 848.38: CA banded and light grey bands/clasts strongly calcareous (limestone), gradual contacts. Biotite in foliation.

<<Alt: 846.04 - 848.38 Moderate Calcite>>

<<Struc: 846.6 - 846.61 dominant foliation>>

848.38 849.66 MDS Carbonaceous Mudstone & Tuffaceous Mudstone light grey FMG

848.38 - 849.66: Strongly calcareous, coarser grain, banded, dirty limestone.

<<Alt: 848.38 - 849.66 Strong Calcite>>

849.66 854.50 MAFt Mafic Volcaniclastics black VFG

849.66 - 854.5: Weakly faulted/fractured, fine grain, CA veins, possibly lithic fragments. EOH.

<<Alt: 849.66 - 854.5 Moderate Calcite>> EOH.

<<Struc: 849.66 - 849.67 dominant foliation>>

<<Struc: 850.3 - 854.5 Weak Fault>> Minor fault gouge, weak shearing, fractured mudstone.

End of Hole @ 854.5