

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH014



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384537.9 mN

Dip: -45.30

Easting: 377538.0 mE

MAG_Azim: 267.90

RL: 413.3 mRL

Total Depth: 32.3 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	GRY-GRN	VVL			por		se	Extremely broken unit; over 1.5m CLS, possible VC, from the solid pieces, it seems like VC, altered, with porphyry							
	GRY	SCT					si py	Chert; silicified; fractured and it seems like it is mixed with mafic VR at bottom?	D242093	0.3	0.4	0.0	9.00	0.04	7.3
	GRY	VVL						Possible Shale? Extremely broken; no mineralization can be seen throughout	D242094	0.5	0.6	0.0	12.00	0.04	7.1
HOTS	GRY	SCT					sp qt py se	Chert with very interesting pyrite (big patch at about 9.0m) sphalerite throughout. Altered in the middle and in the bottom of unit; silicified in parts	D242095	0.4	0.9	0.3	19.00	0.04	3.4
									D242096	0.3	2.0	0.3	18.00	0.85	3.2
									D242097	0.4	3.1	0.6	32.00	0.81	5.2
									D242098	1.2	2.7	0.3	26.00	0.62	4.6
									D242099	0.3	2.7	0.1	22.00	0.56	4.6
HOTS	WHT	SCT			por fia		si sp qt	Very interesting looking white chert; high in silica content; solid; mineralization not as common as previous unit; xenolith grains within?	D242100	0.1	0.3	0.1	3.00	-0.01	1.7
									D242101	0.0	0.3	0.1	1.00	0.01	1.4
									D242102	0.1	0.3	0.0	2.00	0.01	1.3
SZ	GRN	VCI			por		se	VC might be mixed with the previous unit slightly; altered in parts; fractured.							
	GRN	VCF					si	Unit is totally fractured; possibly in a SZ; some silica? And carbonate grains throughout; might be slightly altered							
HOTS	WHT	SCT					sp	As unit 13.2m-16.7m							
SZ	GRN	VCI					si	Extremely broken unit; no solid pieces within to describe the features; close to the previous VC unit; slight alteration							
	GRN	VSS						Unsure; seems like a sandstone; massive. Broken. EOH							

Lithology Legend										Mineralisation			
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Andesite Flow	■ Dolomite	■ Interbedded VSS/VSL/VSM &	■ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Elevated
▲ Basalt	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Strongly Anomalous
▲ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Limestone	■ Quartz Feldspar Porphyry	■ Siltstone	■ Sub-Grade	■ Chert	■ Felsic Flow	■ Quartz Porphyry	■ Slate	■ Volcanic Breccia	■ Volcanic Conglomerate	■ Low-Grade
■ Clay	■ Felsic tuff	■ Lithic Tuff	■ Quartzite	■ Rhyolite	■ Tuff Siltstone	■ High-Grade	■ Crystal Tuff	■ Felsic Volcaniclastic	■ Rhyolite Breccia	■ Undifferentiated Black Shale	■ Volcanic Sandstone	■ Volcanic Siltstone	
■ Dacite	■ Greywacke	■ Mafic Dyke	■ Rhyolite	■ Rhyolite Breccia	■ Undifferentiated Felsic Volcanic		■ Dacite Breccia	■ Hyaloclastite Breccia	■ Rhyolite Tuff	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive		
■ Dacite Flow	■ Interbedded sandstone/shale	■ Massive sulphide	■ Sandstone	■ Sandstone	■ Undifferentiated Mafic Intrusive		■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	■ No Core Present				

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH016



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384538.4 mN
Easting: 377537.1 mE
RL: 413.3 mRL
CoordSys: MGA55 (GDA94)

Dip: -44.70
MAG_Azim: 297.00
Total Depth: 35.2 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	GRY	VMC						Extremely broken unit; Mafic VR; possibly with mudstone? Minor lamination in parts.							
									D242112	0.1	0.4	0.0	2.00	0.02	2.7
	GRY	VMC					cp cb	totally broken; slight chalcopyrite spotted at broken piece; light in weight; close to shale but doesn't have the same characteristics	D242113	0.3	0.3	0.0	7.00	0.04	6.5
									D242114	0.3	0.6	0.2	18.00	0.64	6.0
	GRY	CLA	Clay					A big unit of totally mushy clay; unconsolidated minor sand within it							
	GRN-WHT	VSS						Unsure about lithology; it seems like a small unit of consolidated sandstone; with minor xenolith in it. Broken; light clay within unit as well As previous clay unit from 6.10m-25.8m							
	GRY	CLA	Clay												
	WHT	VVL						it looks like it's a mix of VSS and clay; extremely broken; very hard to define intervals; no mineralization within							
	GRN	VSS					ch	Possible fine grained pyroclastic mixed with sandstone? Pale green unit; carbonate more abundant with mafic veins can be seen at the bottom of unit. No mineralization. EOH	D242115	0.1	0.0	0.0	-1.00	-0.01	2.8

Lithology Legend										Mineralisation		
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Basalt	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Vein quartz	■ Volcanic Breccia	■ Volcanic Conglomerate
▲ Breccia - Undifferentiated	■ Fault Zone	▨ Intermediate flow	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Breccia - Undifferentiated	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Sandstone	■ Volcanic Siltstone	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment
▲ Calcarenite	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Porphyry	■ Slate	■ Volcanic Sandstone	■ Chert	■ Quartz Porphyry	■ Tuff Siltstone	■ Volcanic Siltstone	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive
▲ Clay	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Rhyolite Breccia	■ Undifferentiated Black Shale	■ Undifferentiated Felsic Volcanic	▲ Crystal Tuff	■ Felsic Flow	■ Rhyolite Breccia	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Tuff
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Rhyolite Tuff	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	▲ Dacite	■ Felsic Volcaniclastic	■ Rhyolite Tuff	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Tuff
▲ Dacite	■ Greywacke	▨ Mafic Dyke	■ Sandstone	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	▲ Dacite Breccia	■ Mafic Volcaniclastic	■ Sandstone	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Tuff
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	■ Schist	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	▲ Dacite Flow	■ Mafic Volcaniclastic	■ Schist	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Tuff
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	■ Schist	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	▲ Dacite Lapilli Tuff	■ No Core Present	■ Schist	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Tuff

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH017



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384604.9 mN

Dip: -44.90

Easting: 377415.9 mE

MAG_Azim: 266.90

RL: 396.5 mRL

Total Depth: 37.0 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	BRN-RED	BPY					cb	Broken unit of very oxidized Breccia. Minor carbonate within							
	GRN-RED	VCI			por abx		se cb	Volcaniclast with minor breccia in middle of unit; altered; pale green reddish colour which indicate a small oxidation throughout; broken and fractures in parts. Mafic clasts of zenolith? Within							
	BRN-RED	BPY	VolClas				cb ch qt	Oxidized unit; relatively solid comparing to first unit; fractured; small clasts of carbonate within. Extremely broken at bottom 0.5m.							
	GRN-WHT	VCF	Intrusv		aug lth		si cb	Minor alteration?(pale green white). Mostly broken throughout. Possible zenolith throughout. Poorly sorted matrix.							
	CRM	VDA						Common Mafic veins running through unit; fractured (undergone a high thermal event); Minor carbonate within? not very certain of lithology being Dacite.	D242116	0.0	0.0	0.0	-1.00	-0.01	2.2
									D242117	0.0	0.0	0.0	-1.00	-0.01	1.9
									D242118	0.0	0.0	0.0	-1.00	-0.01	2.4
	CRM-BRN	VVL			por		fs	Possibly Tuff unit? Porphyry occur in places; some altered clast (some sort of intrusion?) within; extremely broken in the middle. Carbonate veins minor throughout unit	D242119	0.0	0.0	0.0	-1.00	-0.01	1.0
									D242120	0.0	0.0	0.0	-1.00	-0.01	4.6
	CRM-GRN	VVL			fia pep			Unsure of unit again; very similar to above unit; however sericite patches and veins are common throughout the unit; porphy and pep in places.EOH	D242121	0.0	0.0	0.0	-1.00	-0.01	6.7
									D242122	0.0	0.0	0.0	-1.00	-0.01	5.5
									D242123	0.0	0.0	0.0	-1.00	-0.01	5.7
									D242124	0.0	0.0	0.0	-1.00	-0.01	3.8

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▼ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ○ Dolomite ▲ Fault Zone ▲ Feldspathic (ash) tuff ▲ Feldspathic porphyry ▲ Felsic Flow ▲ Felsic tuff ▲ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcaniclastic ▲ Lapilli Tuff ▲ Limestone ▲ Lithic Tuff ▲ Mafic Dyke ▲ Mafic Volcaniclastic ▲ Massive sulphide ▲ Mudstone ▲ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ▲ Pyroclastic Breccia ▲ Quartz ▲ Quartz Carbonate Vein ▲ Quartz Feldspar Porphyry ▲ Quartz Porphyry ▲ Quartzite ▲ Rhodacite ▲ Rhyolite ▲ Rhyolite Breccia ▲ Rhyolite Tuff ▲ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ○ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ○ Volcanic Sandstone ○ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH018



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384603.2 mN
Easting: 377416.0 mE
RL: 396.6 mRL
CoordSys: MGA55 (GDA94)

Dip: -64.20
MAG_Azim: 266.60
Total Depth: 41.5 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	BRN-RED	BPY					cb	Extremely broken unit of breccia; oxidized throughout. Minor carbonate within							
	GRN-RED	VCI			por		se cb	Similar to previous hole; volcanoclast altered; pale green reddish colour; carbonate is common; fractured. Becomes more brecciated at bottom of unit							
	BRN-GRN	BPY	VolClas		por abx		cb si se	Relatively solid unit; common carbonate at top; slightly altered in middle. Porphyritic? Clasts are fractured. Cavities occur in parts.							
	CRM	VDA					cb fs si	Not very sure about lithology; well sorted matrix; cream color rock; extremely broken unit; feldspar seems to occur throughout; minor cavities in core as well.							
	GRN	BPY					qt se	Fractured mafic veins throughout; 2.0m of core loss from 21.5-23.5m. Extremely broken grounds							
	GRN-PNK	VCF			fph fia		cb fs	Matrix poorly sorted; mix of feldspar porphyry at top and bottom; mafic veins occur again. Broken unit							
	CRM-PNK	VDA	Intrusv		fph fia pep		fs cb se	Again lithology might be rhyolite not Dacite; relatively solid; feldspar porp common in the matrix; a slight alteration occur @30.30.4m; carbonate and silica? Veins throughout. Matrix well sorted. Fractured. Mafic grains and minor veins as well. Possibly intrusive?	D242125	0.0	0.0	0.0	-1.00	-0.01	2.8
	CRM-PNK	VDA			fph		fs cb	As above unit; however; matrix seems to be reworked at top.							
	GRN	VVL			por		se	Unsure of lithology; it seems to have common porph throughout; slightly altered; reworked poorly sorted matrix and mafic veins.	D242126	0.0	0.0	0.0	-1.00	-0.01	3.1
	GRN	VCI			fia aug		se cb	Altered VC unit. Small clasts of mafic Zenolith within. Carbonate abundant. EOH	D242127	0.0	0.0	0.0	-1.00	-0.01	2.7

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcaniclastic ○ Greywacke ○ Hyaloclastite Breccia ○ Interbedded sandstone/shale ○ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded VSS/VSL/VSM & ■ Intermediate flow ■ Intermediate Volcaniclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhyodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Rhyolite ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH019



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384568.2 mN
Easting: 377583.9 mE
RL: 432.0 mRL
CoordSys: MGA55 (GDA94)

Dip: -73.40
MAG_Azim: 88.60
Total Depth: 26.7 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
		CLS													
	BRN	BPY						Slightly sandy; extremely broken. Over 1.1 CLS at bottom							
	WHT	VCF					cb si	Volcaniclast? Becomes slightly altered at bottom; totally broken; CLS of 0.6m within							
	GRY-RED	SCT	Intrusv		qph fia lth		qt	Extremely silicified to nearly just a silica unit; fractured; very oxidized as well as all the veins that runs through it; qph within	D242128	0.0	0.0	0.0	9.00	0.04	2.0
	GRY-GRN	VCI			por fia		se qt cb	Minor carbonate; extremely broken; weak unit; oxidized; minor clay near bottom of unit	D242129	0.0	0.0	0.1	5.00	-0.01	1.3
HOTS	GRY-GRN	SCT	VolClas		sil fia		se si	Similar to that unit on top of old workings 4985mN; traces of sulphide within; silver content might be high?	D242130	0.1	0.0	0.0	1.00	0.03	2.0
									D242131	0.1	0.0	0.0	-1.00	0.02	1.8
									D242132	0.1	0.0	0.0	-1.00	0.06	1.8
									D242133	0.0	0.1	0.0	1.00	-0.01	1.8
									D242134	0.1	1.0	0.0	2.00	-0.01	3.0
									D242135	0.1	0.5	0.1	4.00	0.04	2.8
									D242136	0.1	0.2	0.0	2.00	-0.01	3.0
	GRN	VCI			aug fia		se cb si	Metamorphised VC? Augen throughout; cavities seems to be common from middle of unit to the bottom; totally broken; a small unit of clay within (5cm); slightly altered with thermal fractures and veins no signs of any mineralization. EOH							

Mineralisation									
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic				
▲ Andesite Flow	■ Dolomite	▨ Interbedded V5S/V5L/V5M &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic				
▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate				
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz				
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia				
▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate				
■ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone				
■ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone				
■ Dacite	○ Greywacke	▨ Mafic Volcaniclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic					
■ Dacite Breccia	○ Hyaloclastite Breccia	▨ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment					
■ Dacite Flow	○ Interbedded sandstone/shale	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive					
■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Undifferentiated Tuff					

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH020



Northing: 5384568.0 mN
Easting: 377585.0 mE
RL: 431.8 mRL
CoordSys: MGA55 (GDA94)

Dip: -46.70
MAG_Azim: 88.30
Total Depth: 40.4 m
DrillCompany:

Project: MTK
Mt Kershaw
Prospect: TTB
Thomas Tunnel

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	CRM	VVL						A massive clear felsic Volcanic Rock; best guess it's Rhyolite or Tuff; very oxidized. Relatively solid at top 3.0m then becomes extremely broken (sandy gravelly crushed like) then the last 2.00m is solid again. Fractured in parts. Some 3.5m core loss occur within unit; however unsure whether its in the middle zone.							
	HOTS GRY	SCT					si	Silicified chert at top 30cm. Oxidization in parts in veins like structure becomes more oxidized at bottom of unit; Fractured; pyrite grains (very small) throughout and minor galena	D242142	0.2	1.1	0.1	13.00	-0.01	6.1
	WHT-RED	VCF				py	ga								
	HOTS GRY	SCT					si	VC with silica content relatively high; extremely broken unit and totally oxidized Similar to top Chert unit; however becomes less silicious at bottom; fractured; and signs of the unit being an intrusion?	D242143	0.5	3.1	0.1	21.00	-0.01	4.5
	HOSM GRY	SCT				py	cp			D242144	0.4	16.5	0.6	34.00	0.07
	HOTS GRY	SCT					si	Not very confident of calling it Semi Sulphide; however; mineralization of pyrite and chalcopryite is very common in veins. Intermediate to Mafic in colour; maybe slightly weathered??	D242145	0.2	4.4	1.3	22.00	0.04	3.1
	BRN LGV					sp				D242146	1.6	17.2	0.5	66.00	0.09
	HOTS GRY	SCT					si	Intermediate to Mafic in colour; maybe slightly weathered??	D242147	14.8	8.2	0.2	50.00	0.12	1.1
	HOSM GRY-WHT	SCT			por	py	cp			D242148	6.5	8.4	0.1	50.00	0.06
	GRY	VCI				se	si	As previous Chert unit. Mineralization less common than before							
	HOTS GRY	SCT				ba	qt	A unit of unconsolidated gravel Very close to Semi Sulphide unit; pyrite and chalcopryite is very common; no sphaerterite; relatively solid							
	HOTS GRY	SCT			qph	ga	sp	Unsure of Porphyry composition; very close to pumice; possibly been replaced. Slight alteration patches here and there. Thermal contraction veins in spots suggesting a very high pressure event occurring	D242149	1.1	1.4	0.0	12.00	0.03	1.7
	BRN	CLA				py	ba								
	F	GRN	VCI					Not very confident of lithology however it looks like it's a mix of Chert with Volcaniclast at top then VC at bottom; very oxidized at bottom; abundant silica veins throughout; minor green alteration patches within							
	GRN	VCM			fia	cb	se	Slightly more mineralized at top; intermediate colour chert. Broken unit							
	BRN-GRN	BPY	VolClas		abx	cb		A sandy clay unit; CLS of 0.8m within Extremely broken unit; with some clay in the middle; possibly a Fault zone?							
	GRN-GRY	VCI			por	se	cb	A massive unit of Mafic VC; fractured; and totally broken at bottom 40cm. Minor carbonate veins within; fiamme at top 70cm							
	GRN	VCI			aug	se	si	Slightly silicious at bottom							
	GRN-BRN	VVL			por	si	cb	Volcaniclast with fine grained pyroclast in bands?							
						si	cb	Seems to be very silicious at bottom							
						se		Unsure of lithology; silica porphyry? Abundant. Slight sericite alteration; more massive at bottom; more like a Felsic version of previous unit. EOH							

Mineralisation									
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	▲ Not logged	■ Schist	■ Undifferentiated Volcanic				
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic				
▲ Basalt	■ Fault Zone	▨ Intermediate flow	▲ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate				
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	▲ Quartz Carbonate Vein	■ Shale	■ Vein quartz				
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	▲ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia				
▲ Chert	■ Felsic Flow	▨ Limestone	▲ Quartz Porphyry	■ Tuff Siltstone	■ Volcanic Conglomerate				
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	▲ Rhodactite	■ Undifferentiated Black Shale	■ Volcanic Sandstone				
▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	▲ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Volcanic Siltstone				
▲ Dacite	■ Greywacke	▨ Mafic Volcaniclastic	▲ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment					
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	▲ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive					
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	▲ Sandstone						
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present							

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH021



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384547.1 mN
Easting: 377562.9 mE
RL: 423.6 mRL
CoordSys: MGA55 (GDA94)

Dip: -44.90
MAG_Azim: 87.80
Total Depth: 26.5 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
		CLS													
	BRN-RED WHT	LGV VCF	Clay				cb	Oxidized; unconsolidated sand; gravel and mixture of crushed rock							
		CLS						Looks like it an a highly weathered VC unit; mix with clay; mushy in parts and unconsolidated in others.							
	GRN-WHT	VCF	Clay					Very similar to previous unit however; slightly more consolidated							
	YEL-RED	VVL	VolClas					Slightly sandy in parts; extremely oxidized; gravelly like in structure; possibly an intrusion							
	YEL-RED WHT-RED	VVL SCT	Intrusv		por		si	As unknown previous unit	D242137	0.1	0.2	0.1	11.00	-0.01	1.2
	GRN	VCI			fia pep		se cb	A unit of just silica with common oxidized veins throughout; possibly chert in parts? Looks like an intrusive. Colour start changing to light grey at bottom 50cm or so	D242138	0.2	0.8	0.0	3.00	-0.01	1.9
HOTS	GRN-GRY	SCT			fia qph		qt se si	A broken unit of Volcaniclast; possible chert interbedded? Minor alteration throughout; mineralization occur in a spot or 2	D242139	0.1	0.4	0.1	14.00	-0.01	1.9
								A silicious chert at top then becomes highly oxidized at bottom 2.0m; mineralization is close to non; zenolith grains throughout; slight alteration; possibly intrusive? Fractured	D242140	0.1	0.1	0.1	41.00	-0.01	1.9
	GRN-WHT	VCF			pep qph		si se	A silicious chert at top then becomes highly oxidized at bottom 2.0m; mineralization is close to non; zenolith grains throughout; slight alteration; possibly intrusive? Fractured	D242141	0.1	0.6	0.1	18.00	-0.01	1.9
	GRN	VCF			por fia		se cb	Highly silicified at bottom; decreases downwards; broken; with the oxidized veins are still abundant; no mineralization. Slight alteration within							
	GRN	VCI			por fia aug		se cb si	Mafic veins are rare within; altered; broken; zenolith occur in spots Metamorphic VC; augen throughout; might have very low chert content in middle but disappear at bottom. A band of silicified VC from 25.50m-26.0m with minor oxidized veins. Zenolith in parts; No mineralization. EOH							

Legend										Mineralisation								
▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic	■ Background	■ Andesite Flow	■ Dolomite	■ Interbedded VSS/VSL/VSM &	■ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic	■ Elevated	■ Anomalous	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade
▲ Basalt	■ Fault Zone	■ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate	■ Anomalous	▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	■ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade		
▲ Calcarenite	■ Feldspathic porphyry	■ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia	■ Anomalous	■ Chert	■ Felsic Flow	■ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade		
■ Clay	■ Felsic tuff	■ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone	■ Anomalous	■ Crystal Tuff	■ Felsic Volcaniclastic	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone	■ Volcanic Sandstone	■ Strongly Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade		
■ Dacite	■ Greywacke	■ Mafic Dyke	■ Rhyolite	■ Undifferentiated Felsic Volcanic	■ Undifferentiated Felsic Volcanic	■ Anomalous	■ Dacite Breccia	■ Hyaloclastite Breccia	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment	■ Undifferentiated Mafic Intrusive	■ Undifferentiated Mafic Intrusive	■ Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade		
■ Dacite Flow	■ Interbedded sandstone/shale	■ Massive sulphide	■ Rhyolite Tuff	■ Undifferentiated Tuff	■ Undifferentiated Tuff	■ Anomalous	■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	■ Sandstone	■ Undifferentiated Tuff	■ Undifferentiated Tuff	■ Undifferentiated Tuff	■ Anomalous	■ Sub-Grade	■ Low-Grade	■ High-Grade		
■ Dacite Lapilli Tuff	■ No Core Present	■ No Core Present	■ Sandstone	■ Undifferentiated Tuff	■ Undifferentiated Tuff	■ Anomalous							■ Sub-Grade	■ Low-Grade	■ High-Grade			

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH023



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384580.2 mN

Dip: -46.00

Easting: 377644.1 mE

MAG_Azim: 269.80

RL: 442.2 mRL

Total Depth: 50.3 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	WHT-CRM	VVL					si	Felsic Volcanic Rock; fractured with common oxidized veins (high thermal contraction?). Broken; high in silica in some places							
	GRN-WHT	VCI						Volcaniclast with a white band of the previous lithology in the middle of the unit. Slightly altered							
	GRN-GRY	VCI			por		sp	It seems to be more volcaniclastic than chert (possibly mixed) slight mineralization throughout; some pyrite +sphalerite within	D242153	0.3	1.7	0.1	10.00	-0.01	2.6
HOTS	GRY	SCT			fia	py	D242154		0.2	1.0	0.1	12.00	-0.01	3.8	
						se	Relatively solid; with traces of sulphide; possibly altered in parts (pale green colour); possibly mixed with minor VC?		D242155	0.2	1.9	0.2	12.00	-0.01	3.4
					qph		sp	Altered VC; with minor Chert within; mineralization is minor(as previous) weaker than previous unit; and relatively altered comparing to previous unit. VC texture more dominant							
	GRN-CRM	LGV						Unconsolidated gravel unit; totally broken; VC might be within as well? Can't define a certain interval							
		CLS													
	GRN	VCI						Extremely broken unit; top 10cm gravel??							
	WHT-GRY	CLA						Mushy clay; a coreloss of 1.00m within unit							
	CRM	BPY						Minor Mafic veins within; extremely broken at bottom of unit; possibly mixed with some clay							
	GRY	SCT						minor silicious in parts; extremely broken and fractured							
		CLS													
	GRN	VSS		VolClas			se	Volcaniclastic sandstone? Clasts of shale can be seen in spots through the unit; minor lamination from 27.70m. Extremely broken then; and slightly more altered than top. Very few cavities in parts							
							si								
	GRN	VCI					se	Close to previous unit; however; sand seems to appear in parts rather than being dominant; broken unit; altered; Again some shale fragments within; smaller than previous unit; and minor lamination at top of unit; pyrite and chalcocopyrite can be seen at bottom of unit (with a hand lens)							
							cb								
							py								
	GRN	BPY		VolClas			se	Fine grained altered pyroclastic; broken at bottom; no mineralization within							
							cb								
								Minor Zenolith grains within; altered; barite seems abundant in patches throughout. Chalcocopyrite and pyrite patches in parts; quartz porphyry within? Light carbonate veins throughout	D242156	0.1	1.4	0.0	3.00	0.06	7.0
	GRN-GRY	VCI			por		ba		D242157	0.2	1.9	0.0	2.00	0.02	3.1
	GRN	VCI			fia		sp								
							se								
							se	Similar to previous unit; however; mineralization of pyrite - chalcocopyrite in part; barite patch of 0.50m in middle of unit. Totally broken at bottom	D242158	5.6	6.1	0.0	16.00	0.04	1.5
					por		cb		D242159	5.0	5.9	0.1	17.00	0.08	2.2
					fia		ba	Chert mix with Volcaniclast; very heavy; mostly solid; barite in spots and carbonate abundant in middle. Minor sphalerite here and there but nothing major at bottom	D242160	2.9	3.5	0.0	9.00	0.05	1.0
							se		D242161	1.6	4.0	0.0	5.00	0.02	1.9
							si	Minor shiny mineralization throughout the extremely broken unit; possible silica in parts; matrix reworked? Mainly altered. Possible in FTZ							
F	GRN	VCI					se		D242162	0.2	3.1	0.2	14.00	0.03	11.2
							cp								
							py								
	CRM-GRN	BPY		VolClas			sp	Broken unit of fine grained pyroclastic; minor mafic veins and fractured due to thermal event? EOH							
							se								

Mineralisation	
Background	
Elevated	
Anomalous	
Strongly Anomalous	
Sub-Grade	
Low-Grade	
High-Grade	

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH023



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384580.2 mN

Dip: -46.00

Easting: 377644.1 mE

MAG_Azim: 269.80

RL: 442.2 mRL

Total Depth: 50.3 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	CRM-GRN	BPY	▲▲▲ VolClas				se	Broken unit of fine grained pyroclastic; minor mafic veins and fractured due to thermal event? EOH							

▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic
▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia
▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate
■ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone
■ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone
■ Dacite	○ Greywacke	▨ Mafic Volcaniclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic	
■ Dacite Breccia	○ Hyaloclastite Breccia	▨ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment	
■ Dacite Flow	○ Interbedded sandstone/shale	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	
■ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Undifferentiated Tuff	

Mineralisation

■ Background
■ Elevated
■ Anomalous
■ Strongly Anomalous
■ Sub-Grade
■ Low-Grade
■ High-Grade

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH024



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384617.9 mN

Dip: -55.90

Easting: 377639.5 mE

MAG_Azim: 87.60

RL: 0.0 mRL

Total Depth: 40.2 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
	YEL-CRM	CLA						Broken and Mushy clay; CLS of about 8.0m within; a grey layer from 5.60m-5.90m (Mushy).							
		CLS													
	GRY	VVL						Unconsolidated broken unit of VCI?							
	GRN	VCI					ch cb	Broken and fractured core; minor carbonate; slightly altered. Cavities appear in places							
HOTS	GRN-GRY	VCM					py se si	Chert mix with VC; slightly altered at bottom; mineralization seems more abundant at bottom of unit; however; nothing major (no more than 7% Pb+Zn); slightly silicious	D242163	1.0	2.1	0.1	8.00	0.03	2.0
	GRN-GRY	VCI					ga se	again mixed with chert; Fractured unit; seems to be similar to top unit however mineralization less abundant and lightly coloured.	D242164	0.6	0.9	0.1	4.00	-0.01	2.9
	GRN-GRY	BPY	▲▲▲	VolClas			se cb ga py	Can't define much mineralization within unit, seems to be fine pyroclastic but unsure.	D242165	0.2	0.3	0.0	2.00	-0.01	5.7
	GRN	VCM						Seems to be massive; altered; extremely broken at bottom 60cm. Minor mineralization of galena and pyrite in parts. Nothing major							
	GRY-WHT	VVL	+	Intrusv			sp	Just a quartz vein intrusive. Minor sphalerite (need a handlense to see it); broken	D242166	1.3	8.1	0.3	22.00	0.14	2.0
SZ	CRM	VFT					sp py si	Zenolith grains in matrix? Broken unit; unsure of lithology being tuff							
HOTS	GRY	SCT						Chert; medium grey; becomes silicified at bottom 60cm. Possible CLS within unit; fractured (thermal contraction style)	D242167	2.3	19.6	0.8	93.00	1.05	13.4
F		FTZ					py sp sp ga	Mushy clayey unit	D242168	2.3	10.4	1.2	175.00	1.54	21.0
HOMS	GRY	MSS						High grade BMS; possible coreloss of some 0.5m within; extremely broken; slightly weathered? Heavy; 30%Pb+Zn? Mixed with Chert in the middle.	D242169	1.5	10.3	0.5	30.00	1.24	18.8
HOTS	GRN-GRY	VVL	+				ga sp	Unsure of lithology due to the extreme broken ground in most of the unit; seems like a gossan at top?? However mineralization doesn't seem abundant.	D242170	3.2	7.6	0.3	38.00	0.64	8.1
HOTS	GRN-GRY	VCI					si se ga cp		D242171	0.5	1.0	0.1	5.00	0.06	3.6
FW	BRN-PNK	VCF			por sil				D242172	0.0	0.0	0.0	1.00	-0.01	1.7
	GRN	BPY	▲▲▲		qph qph		fs qt si cb fs qt se	It seems to be mixed with Chert at bottom; mineralization seems moderate to high (might be close to semi-sulphide) altered; and silicified at bottom; 30cm of Shear Zone at 36.70m? End of mineralized zone							
								Unfamiliar unit; quartz seems to fill big voids throughout the lithology (big quartz Veins and quartz Porphyry) feldspar is clear and abundant; no mineralization within unit							
								Fine pyroclastic unit; starts with feldspar common(not as before) then no feldspar at bottom. Quartz again seems to appear in thermal veins style and decreased at last 30cm or so. Slightly altered. Silicious throughout; and fractured. EOH							

▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	⚠ Not logged	⚠ Schist	⚠ Undifferentiated Volcanic
▲ Andesite Flow	⚠ Dolomite	▨ Interbedded V5S/VSL/VSM &	▲ Pyroclastic Breccia	⚠ See comments for full descrip	▨ Undifferentiated Volcaniclastic
▲ Basalt	⚠ Fault Zone	▨ Intermediate flow	▲ Quartz Carbonate Vein	⚠ Semi-massive Sulphides	▨ Vein Carbonate
▲ Breccia - Undifferentiated	▲ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	▲ Quartz Feldspar Porphyry	⚠ Shale	▨ Vein quartz
▲ Calcarenite	▲ Feldspathic porphyry	▨ Lapilli Tuff	▲ Quartz Porphyry	⚠ Siltstone	▨ Volcanic Breccia
▲ Chert	▲ Felsic Flow	▨ Limestone	▲ Quartzite	⚠ Slate	▨ Volcanic Conglomerate
▲ Clay	▲ Felsic tuff	▨ Lithic Tuff	▲ Rhodactite	⚠ Tuff Siltstone	▨ Volcanic Sandstone
▲ Crystal Tuff	▲ Felsic Volcaniclastic	▨ Mafic Dyke	▲ Rhyolite	⚠ Undifferentiated Black Shale	▨ Volcanic Siltstone
▲ Dacite	▲ Greywacke	▨ Mafic Volcaniclastic	▲ Rhyolite Breccia	⚠ Undifferentiated Felsic Volcanic	
▲ Dacite Breccia	▲ Hyaloclastite Breccia	▨ Massive sulphide	▲ Rhyolite Tuff	⚠ Undifferentiated Fluvio-glacial Sediment	
▲ Dacite Flow	▲ Interbedded sandstone/shale	▨ Mudstone	▲ Sandstone	⚠ Undifferentiated Mafic Intrusive	
▲ Dacite Lapilli Tuff	▲ Interbedded sandstone/siltsto	▨ No Core Present		⚠ Undifferentiated Tuff	

Mineralisation

Background
Elevated
Anomalous
Strongly Anomalous
Sub-Grade
Low-Grade
High-Grade

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH024



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384617.9 mN
Easting: 377639.5 mE
RL: 0.0 mRL
CoordSys: MGA55 (GDA94)

Dip: -55.90
MAG_Azim: 87.60
Total Depth: 40.2 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
50															
60															
70															
80															
90															
100															

▲ Andesite	■ Disseminated Sulphides	▨ Interbedded siltstone/shale	■ Not logged	■ Schist	■ Undifferentiated Volcanic
▲ Andesite Flow	■ Dolomite	▨ Interbedded VSS/VSL/VSM &	▲ Pyroclastic Breccia	■ See comments for full descrip	■ Undifferentiated Volcaniclastic
▲ Basalt	■ Fault Zone	▨ Intermediate flow	■ Quartz	■ Semi-massive Sulphides	■ Vein Carbonate
▲ Breccia - Undifferentiated	■ Feldspathic (ash) tuff	▨ Intermediate Volcaniclastic	■ Quartz Carbonate Vein	■ Shale	■ Vein quartz
▲ Calcarenite	■ Feldspathic porphyry	▨ Lapilli Tuff	■ Quartz Feldspar Porphyry	■ Siltstone	■ Volcanic Breccia
▲ Chert	■ Felsic Flow	▨ Limestone	■ Quartz Porphyry	■ Slate	■ Volcanic Conglomerate
▲ Clay	■ Felsic tuff	▨ Lithic Tuff	■ Quartzite	■ Tuff Siltstone	■ Volcanic Sandstone
▲ Crystal Tuff	■ Felsic Volcaniclastic	▨ Mafic Dyke	■ Rhyodacite	■ Undifferentiated Black Shale	■ Volcanic Siltstone
▲ Dacite	■ Greywacke	▨ Mafic Volcaniclastic	■ Rhyolite	■ Undifferentiated Felsic Volcanic	
▲ Dacite Breccia	■ Hyaloclastite Breccia	▨ Massive sulphide	■ Rhyolite Breccia	■ Undifferentiated Fluvio-glacial Sediment	
▲ Dacite Flow	■ Interbedded sandstone/shale	▨ Mudstone	■ Rhyolite Tuff	■ Undifferentiated Mafic Intrusive	
▲ Dacite Lapilli Tuff	■ Interbedded sandstone/siltsto	▨ No Core Present	■ Sandstone	■ Undifferentiated Tuff	

Mineralisation	
■ Background	
■ Elevated	
■ Anomalous	
■ Strongly Anomalous	
■ Sub-Grade	
■ Low-Grade	
■ High-Grade	

ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH025



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384478.9 mN
Easting: 377453.4 mE
RL: 415.0 mRL
CoordSys: MGA55 (GDA94)

Dip: -55.40
MAG_Azim: 259.40
Total Depth: 44.0 m
DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
		CLS													
	YEL-BRN	LGV CLS						Unconsolidated gravel							
	CRM GRY	VDA MSS CLS						Starts with mix of gravel? Then seems to be Dacite or possibly Tuff?? Extremely broken; unconsolidated in most parts	D242173	22.7	27.6	0.8	116.00	1.60	6.8
	GRY GRN-GRY	MSS VCI						Heavy; high grade materials "gravelly" like due to being broken; seems grinded.							
	GRY	MSS VVL CLS						Heavy and high grade; seems like previous MSS unit	D242174	22.8	37.1	0.6	167.00	7.90	4.2
	CRM-GRY BLK	VDA SSH						Extremely broken unit; sandy and unconsolidated at bottom; top seems bit harder. Sandy texture. Some core possibly retrieved and redrilled more than once							
	GRN-CRM CRM-PNK	VCI VDA	EpiClas		fph fia			High grade BMS; heavy as previous MSS units	D242175	0.1	0.4	0.0	5.00	0.08	2.4
	GRN	VCI						Unsure of unit; seems like it has been mixed together through drilling; broken; range from yellow to grey in colour slightly grey if you look closely; extremely broken; a couple of thin mafic veins runs through the core. Again it could be Tuff							
	GRN	VCI						Extremely broken; no piece more than 10cm throughout the unit							
	GRN-CRM CRM-PNK	VCI VDA			fph fia			Unit is again broken; description is based on one piece of core; slight alteration within unit; totally broken at bottom of unit. unsure of lithology (seems mixed)							
	GRN	VCI						Dacite? With abundant mafic veins throughout; feldspar seems abundant as well. Relatively broken							
	HOTS HOTS HOTS	GRY GRY GRY	SCT MSS SCT		qph			broken unit of altered VC; feldspar seems to appear smaller in this unit; extremely broken at bottom 20cm	D242176	6.8	11.6	0.7	38.00	1.07	3.0
									D242177	8.7	8.7	0.4	32.00	0.11	3.4
								Semi Sulphide unit; high in quartz in places; mineralization abundant; altered in spots?	D242178	0.1	0.8	0.0	5.00	0.09	2.1
								More mineralized than previous unit; heavy; Pale Sphalerite + Silver is high in content. Estimated 30%pb+zn ?	D242179	0.2	1.5	0.0	6.00	0.12	3.2
									D242180	0.3	1.0	0.0	6.00	0.04	1.3
								Chert with traces of sulphide in most parts to non in some parts; sphalerite patches throughout. From 30m-31.50m looks like Epiclastic; very fractured at that section; and not as heavy as the surrounding Chert.	D242181	0.2	1.1	0.0	3.00	0.03	1.3
								Minor sercite patch at 35.25m of 20cm or so. Total zone estimated at 7-8% Pb+Zn?	D242182	0.1	1.0	0.1	2.00	0.02	1.7
	HOTS	GRN	VCI		qph fia			Volcaniclast; Altered and silicified in parts (mixed with Chert at top?); sphalerite seems to appear in patches; and galena as well minor. quartz veins (might be oxidized) rare through the unit, relatively solid; and light. Very low grade in the total zone.	D242183	0.1	1.1	0.0	11.00	0.15	7.9
									D242184	0.1	0.3	0.0	6.00	0.07	2.3
									D242185	0.1	1.5	0.0	6.00	0.08	2.1
									D242186	1.0	2.0	0.0	6.00	0.05	1.1
									D242187	0.2	0.6	0.0	5.00	0.16	1.3
									D242188	0.6	1.4	0.0	9.00	0.11	1.7
	GRN	VCI			fph			Close to unit above with no mineralization within; feldspar appear in spots. EOH							

<ul style="list-style-type: none"> Andesite Andesite Flow Basalt Breccia - Undifferentiated Calcarenite Chert Clay Crystal Tuff Dacite Dacite Breccia Dacite Flow Dacite Lapilli Tuff 	<ul style="list-style-type: none"> Disseminated Sulphides Dolomite Fault Zone Feldspathic (ash) tuff Feldspathic porphyry Felsic Flow Felsic tuff Felsic Volcaniclastic Greywacke Hyaloclastite Breccia Interbedded sandstone/shale Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> Interbedded siltstone/shale Interbedded VSS/VSL/VSM & Intermediate flow Intermediate Volcaniclastic Lapilli Tuff Limestone Lithic Tuff Mafic Dyke Mafic Volcaniclastic Massive sulphide Mudstone No Core Present 	<ul style="list-style-type: none"> Not logged Pyroclastic Breccia Quartz Quartz Carbonate Vein Quartz Feldspar Porphyry Quartz Porphyry Quartzite Rhodacite Rhyolite Rhyolite Breccia Rhyolite Tuff Sandstone 	<ul style="list-style-type: none"> Schist See comments for full descrip Semi-massive Sulphides Shale Siltstone Slate Tuff Siltstone Undifferentiated Black Shale Rhyolite Undifferentiated Felsic Volcanic Undifferentiated Fluvio-glacial Sediment Undifferentiated Mafic Intrusive Undifferentiated Tuff 	<ul style="list-style-type: none"> Undifferentiated Volcanic Undifferentiated Volcaniclastic Vein Carbonate Vein quartz Volcanic Breccia Volcanic Conglomerate Volcanic Sandstone Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> Background Elevated Anomalous Strongly Anomalous Sub-Grade Low-Grade High-Grade
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ROSEBERY LITHOLOGY_VMS LOG

Hole ID: TTH026



Project: MTK

Mt Kershaw

Prospect: TTB

Thomas Tunnel

Northing: 5384478.1 mN

Dip: -44.50

Easting: 377452.7 mE

MAG_Azim: 224.20

RL: 415.1 mRL

Total Depth: 47.2 m

CoordSys: MGA55 (GDA94)

DrillCompany:

Strat	Colour	Lithology	Genetic Text	Litho Facies	Texture	Alt	Min	Summary	Sample_ID	Pb pct	Zn pct	Cu pct	Ag ppm	Au ppm	Fe pct
		CLS						Unsure whether CLS is at top or bottom of unit							
	YEL-BRN	LGV CLS						Unconsolidated gravel Unsure whether CLS is at top or bottom of unit							
	CRM	VCF CLS						Extremely broken Unsure whether CLS is at top or bottom of unit							
	CRM	LGV CLS						Unconsolidated gravel Unsure whether CLS is at top or bottom of unit							
	CRM	LGV CLS						As previous gravel Unsure whether CLS is at top or bottom of unit							
	CRM	LGV CLS													
	GRY-CRM WHT CRM-GRY	VVL SSH VTF		VolClas				Few pieces of mafic shale within; possibly mixed with sandstone? Broken unit of sandstone? Unit is very broken and grinded; very hard to define exact lithology. It seems like it's tuffaceous throughout with bits of VCI in part (core pieces no more than 15cm). Carbonate in spots; slight alteration?? Only in the VC core. Mafic veins within tuff as well							
	GRY-GRN	VCI					cb ch	Again very badly broken unit; seems to have unconsolidated texture in the middle (sandy like); slightly felsic at top (clayey like).							
	CRM	VTF						Felsic unit; relatively solid compared to before; grey veins within unsure why or what is it. No mineralization; massive							
	GRN	VCM					se cb	VC mafic; highly altered? Spots of feldspar noticed within unit; becomes cherty like at bottom. Broken in most parts	D242189						
HOTS	GRY	SCT					sp si py ga	Chert with traces of sulphide in most parts to non in some parts; sphalerite patches throughout occurring in the silica veins sometimes. Thermal Silica patches and veins seems abundant in some parts of the unit; silver occur in spots and galena as well. Sampling will show overall mineralization. probably @5%Pb+Zn. starts to be VCM at the last 40cm or so. some cavities in places.	D242190 D242191 D242192 D242193 D242194 D242195 D242196						
									D242197 D242198 D242199 D242200 D242201						
	GRY-GRN	VCI					ch sp	Minor mineralization occur at top 30cm where the chert mix still in part then unit becomes weak and altered (MD GREEN) with no mineralization can be seen. EOH.EOABPH	D242202 D242203						

<ul style="list-style-type: none"> ▲ Andesite ▲ Andesite Flow ▲ Basalt ▲ Breccia - Undifferentiated ▲ Calcarenite ▲ Chert ▲ Clay ▲ Crystal Tuff ▲ Dacite ▲ Dacite Breccia ▲ Dacite Flow ▲ Dacite Lapilli Tuff 	<ul style="list-style-type: none"> ■ Disseminated Sulphides ■ Dolomite ■ Fault Zone ■ Feldspathic (ash) tuff ■ Feldspathic porphyry ■ Felsic Flow ■ Felsic tuff ■ Felsic Volcaniclastic ■ Greywacke ■ Hyaloclastite Breccia ■ Interbedded sandstone/shale ■ Interbedded sandstone/siltsto 	<ul style="list-style-type: none"> ■ Interbedded siltstone/shale ■ Interbedded V5S/V5L/V5M & ■ Intermediate flow ■ Intermediate Volcaniclastic ■ Lapilli Tuff ■ Limestone ■ Lithic Tuff ■ Mafic Dyke ■ Mafic Volcaniclastic ■ Massive sulphide ■ Mudstone ■ No Core Present 	<ul style="list-style-type: none"> ■ Not logged ■ Pyroclastic Breccia ■ Quartz ■ Quartz Carbonate Vein ■ Quartz Feldspar Porphyry ■ Quartz Porphyry ■ Quartzite ■ Rhodacite ■ Rhyolite ■ Rhyolite Breccia ■ Rhyolite Tuff ■ Sandstone 	<ul style="list-style-type: none"> ■ Schist ■ See comments for full descrip ■ Semi-massive Sulphides ■ Shale ■ Siltstone ■ Slate ■ Tuff Siltstone ■ Undifferentiated Black Shale ■ Undifferentiated Felsic Volcanic ■ Undifferentiated Fluvio-glacial Sediment ■ Undifferentiated Mafic Intrusive ■ Undifferentiated Tuff 	<ul style="list-style-type: none"> ■ Undifferentiated Volcanic ■ Undifferentiated Volcaniclastic ■ Vein Carbonate ■ Vein quartz ■ Volcanic Breccia ■ Volcanic Conglomerate ■ Volcanic Sandstone ■ Volcanic Siltstone 	<p>Mineralisation</p> <ul style="list-style-type: none"> ■ Background ■ Elevated ■ Anomalous ■ Strongly Anomalous ■ Sub-Grade ■ Low-Grade ■ High-Grade
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