

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: MTS-47

DATE: 17-May-1988

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.60	OVERBURDEN «OB»					Casing
6.60 TO 114.30	DIORITE «DIOR»	<p>Colour - green. Grain Size - medium to coarse grained. Massive. - good intergranular texture with spotty texture where feldspar crystals are more porphyritic.</p> <p>{43.3 - 46.7} «M dyke» - fine grained grey mafic dyke with 1% (1mm sized) fsp phenocrysts - sharp but irregular contacts - weakly magnetic</p> <p>{56.0 - 60.0} «M dyke» 56.0 (contact) - fine grained dark grey mafic dyke, 3% fine grained fsp phenocrysts - upper contact sharp; magnetic near upper contact</p> <p>Fine grained, grey mafic dykes at: {67.9 - 68.7} «M dyke» {69.0 - 69.2} «M dyke» {70.3 - 70.4} «M dyke» {70.8 - 71.3} «M dyke» {93.9 - 94.5} «M dyke»</p> <p>Approx. 106.1 - 114.3 Diorite groundmass becoming fine grained towards lower contact. - chilled at contact which is sharp; have 5% dark green (chl) amygdules at contact 114.3 (contact)</p>		<p>Generally unaltered except as noted below.</p> <p>{32.0 - 32.6} «S chl-carb»</p> <p>{48.1 - 53.7} «M-S chl-carb»</p>	None	<p>26.2 - 28.0 - blocky core.</p> <p>37.4 - 40.3 - blocky core.</p> <p>92.4 - 96.0 - blocky core</p> <p>112.2 - 118.5 - blocky core</p>
114.30 TO 122.55	FELSIC ASH «FA»	<p>Colour - grey. Grain Size - fine grained. Looks massive but core very blocky. - weakly foliated in non-cherty sections 118.8 (foliation)</p> <p>120.9 - 122.55 - cherty look, fine grained, grey.</p>		<p>Patchy siliceous zones - interbeds of chert or alteration?</p>	<p>«Tr - 1% py, tr cp»</p> <p>Tr - 1% pyrite on fracture planes. Tr cp in quartz veinlets.</p>	

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122.55 TO 127.10	DIORITE «DIOR»	Colour - dark green. Grain Size - fine - medium grained. Massive to foliated in chlorite-carbonate rich zones. - feldspar porphyritic, 5-10% "ragged" feldspar crystals in - upper contact sharp; 5% dark green (chl?) amygdules at contact 122.55 (contact)	65	1-2% qtz-carb veins.	Tr pyrite in qtz-carb veins.	
127.10 TO 147.20	MAFIC DYKE «M DYKE»	Colour - dark grey. Grain Size - fine grained. - sharp contacts; massive, weakly magnetic 3-5% white specks (1-2mm) size = feldspar phenocrysts 127.1 (contact) 147.2 (contact)	30 30	Pervasively carbonate-rich.	Tr disseminated pyrite.	
147.20 TO 150.60	FELSIC ASH «FA»	Colour - greenish grey. Grain Size - very fine grained. Weakly foliated to massive. - no discernible textures 149.0 (foliation)	45	- patchy moderate chlorite alteration gives rich its greenish colour.	«2-3% py» - 2-3% fine disseminated pyrite.	
150.60 TO 160.50	MAFIC DYKE «M DYKE»	Colour - dark grey. Grain Size - fine grained. Massive. - lower contact marked by fault gouge and blocky core.		- strong pervasive carbonate alteration & 1% qtz-carb veins.	None.	
160.50 TO 212.45	FELSIC ASH-TUFF «FA,FT»	Colour - light grey. Grain Size - fine grained. Massive to locally moderately foliated. 160.5 - 166.7 «FAULT» - fault gouge & blocky core		«W-M chl, W ser» - weakly sericitic with patches that are weakly to moderately chloritic.	«1% py» - 1% disseminated pyrite with locally higher concentrations. 172.0 - 172.9 «10% py»	170.4 - 172.7 - blocky core.

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		- tr mm - sized rounded qtz crystals. - locally also have cherty sections.			- pyrite associated with a more chloritic zone.	
		187.0 (foliation)	45		181.85 - 1cm wide py-cp stringer cutting core at right angles.	175.6 - 176.3 - blocky core.
		199.9 - 200.5 - bed with approx. 25% mm-sized fsp crystals, contacts gradational with adjacent tuff.				191.4 - 193.2 - blocky core.
		201.1 - possible faint bedding of - more siliceous layers in tuff.				
		201.1 (bedding?)	60			
212.45 TO 234.60	DIORITE «DIOR»	Colour - dark green. Grain Size - medium grained. Massive 5% "ragged" greenish white feldspar phenocrysts in a medium grained, intergranular groundmass.		1-3% qtz-carb veins, fsp crystals - weakly epidotized.	None.	210.6 - 212.4 - blocky core.
		212.45 (contact)	45			
		234.6 (contact)	55			
234.60 TO 272.30	FELSIC TUFF «FI»	Colour - grey. Grain Size - fine grained. Locally well-foliated. - core angles very shallow. - fine-grained ash, with odd qtz crystal & fragment.		«W-M ser, W chl» - weakly to moderately sericitic throughout - locally weakly chloritic	«1-2% py» - 1-2% disseminated pyrite except locally enriched as noted below.	
		237.0 - 237.9 - quartz vein.			237.0 - 237.9 «tr - 1% py, tr cp»	239.6 - 250.2 - blocky core.
		250.2 - 250.4 - 2-3% dark green elongate fragments aligned parallel to core axis - possible pumice?? - indication of bedding approx. parallel to C.A.				253.2 - 259.4 - very blocky core.
				257.9 - 264.4 Core has mottled look. Siliceous areas separated by green chloritic zones.		
				259.6 - red, subrounded garnets? 2-3mm diameter.		261.8 - 267.6 - blocky core.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
272.30 TO 275.40	FELSIC LAPILLI TUFF «FLT»	Colour - grey. Grain Size - fine grained. Contact with overlying & underlying units gradational. - up to 10% dark grey fragments in fine grained grey ashy matrix - fragments concentrated towards lower contact - fragments aligned approx. parallel to C.A. - fragments up to 2cm x 0.5cm - have frothy look - pumiceous?		«W ser»	«tr py»	- fragments graded - indicate tops up hole.
275.40 TO 290.10	SULPHIDE-RICH FELSIC TUFF «FT»	Colour - light to dark grey. Grain Size - fine grained. Weakly foliated. - fine grained ash with the odd Qtz crystal and lithic fragment (of chl or f.gr. grey felsic Ash). 287.0 (foliation)	25	«W-M ser, W chl» - weak to moderate sericite, weak chlorite; 1-2% Qtz veins.	{275.4 - 277.3} «3-5% py, tr cp» - sulphides as stringers at 25 degrees to C.A. and/or disseminations. {277.3 - 278.9} «1% cp, 8-10% py» - sulphides as disseminations and stringers. {278.9 - 290.1} «3-5% py, tr cp» - sulphides as dissemination and as stringers approximately parallel to C.A.	
290.10 TO 320.40	FELSIC LAPILLI TUFF «FLT»	Colour - dark to light grey. Grain Size - fine grained. Similar to unit at 272.3 - 275.4. - have 2-3% "frothy" light grey to dark grey elongate fragments (up to 1-2cm x 1cm) wispy look - possible pumiceous fragments. - elongate parallel to C.A. 316.0 (foliation)	20	«W ser» - weak patchy sericite alteration.	«1% py» 1% finely disseminated pyrite; some of fragments have disseminated pyrite.	Are these fragments real or are they pseudo-fragments due to selective alteration (W chl).
320.40 TO 331.00	FELSIC ASH «FA»	Colour - light to dark grey. Grain Size - fine grained. Massive. - possibly the odd Qtz "eye"		{320.4 - 324.2} «W ser» {324.2 - 331.0} «Sil»	None.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		324.2 - 331.0 - unit becoming very fine grained & siliceous looking. - contact with fragmental unit gradational and indistinct.		- pervasively siliceous - gives rock a "cherty" look - may be due to proximity to diorite.	330.95 - 331.0} <20% py, tr cp> - 20% py, tr cp in qtz vein at contact between felsic ash and mafic dyke.	
331.00 TO 351.10	MAFIC DYKE <M DYKE>	Colour - dark green. Grain Size - fine grained. Massive. - upper contact sharp. 331.0 (contact) 349.8 - 350.4} <FA> 349.8 (contact) - thin inclusion of fine grained, dark grey, felsic ash, siliceous - cherty look. 350.4 (contact) 351.1 (contact)	60 55 40 40	<W carb> - weak pervasive carbonate alteration.	<1-2% py> - pyrite as medium grained disseminations and in carbonate veinlets.	
351.10 TO 360.80	FELSIC ASH <FA>	Colour - dark to light grey. Grain Size - fine grained. Massive to weakly foliated. - small mm-sized wisps in more sericitic patches - chloritic blebs or possible fragments? Tr qtz crystals - rounded; 1-2mm diameter. 354.0	30	<W ser> - weak patchy sericite - unit looks somewhat siliceous - probably primary feature.	<tr py>	
360.80 TO 374.40	MAFIC DYKE <M DYKE>	Colour - dark to pale green. Grain Size - fine grained. Massive. 360.8 (contact)	20	<W carb, W-M ep> - weak pervasive carbonate alteration; 1-2% qtz-carb veins. - patchy weak to moderate epidote alteration.	<1-2% py> - pyrite as medium grained disseminations, cubes and in veinlets.	
374.40 TO 397.50	QP CRYSTAL TO TUFF <QPT>	Colour - greenish grey. Grain Size - medium grained. Weakly foliated. - 5-10% rounded quartz crystals (1-5mm diameter)		<W ser> 374.4 - 375.9} <30% qtz veins> - 30% qtz veins at contact with mafic	<tr py> - tr disseminated pyrite except as noted below.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE (TO CR)	ALTERATION	MINERALIZATION	REMARKS
		in fine grained ashv matrix.		dyke		
		382.0 (foliation)	30	- unit has weak patchy sericite alteration throughout.		
		384.4 - 384.7 - mafic dyke				
		384.4 (contact)	40			
		392.7 - 393.55 «M dyke»				
		392.7 (contact)	65			
		396.4 - 397.5 «M dyke?»				
				382.55 - 383.1 «qtz vein»	382.55 - 383.1 «5% uv, tr cp»	

Sample	From (m)	To (m)	Length (m)	ASSAYS					GEOCHEMICAL					COMMENTS
				CU %	ZN %	PB %	AG gm/T	AU gm/T	CU ppm	ZN ppm	PB ppm	AG ppm	AU ppb	
9076	172.00	172.90	0.90											
9077	275.40	276.30	0.90											
9078	276.30	277.30	1.00											
9079	277.30	278.90	1.60											
9080	278.90	280.40	1.50											
9081	280.40	281.90	1.50											
9082	281.90	283.40	1.50											
9083	283.40	284.90	1.50											
9084	284.90	286.40	1.50											
9085	286.40	287.90	1.50											
9086	287.90	289.00	1.10											
9087	289.00	290.10	1.10											
9088	317.70	318.05	0.35											
9089	374.40	375.90	1.50											
9090	382.55	383.10	0.55											

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	BA %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	SB PPM	SR %	ZR %	TOTAL %	
6911	117.30	120.80	3.50																					
6912	166.70	169.80	3.10																					
6913	205.70	208.80	3.10																					
6914	243.80	246.80	3.00																					
6915	296.30	299.30	3.00																					
6916	324.60	327.60	3.00																					
6917	385.90	388.60	2.70																					

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0.00 TO 9.10	OVERBURDEN «OB»					Casing
9.10 TO 10.20	FELSIC CRYSTAL TUFF «FT»	Colour - grey. Grain Size - fine - medium grained. - well-foliated - 1-3% qtz crystals set in fine grained ashy matrix.		«W ser»		None.
10.20 TO 95.90	MONA DIORITE «DIOR»	Colour - greyish green. Grain Size - medium - coarse grained. Massive. - fine-grain chill at upper contact which is obscured by blocky core - good intergranular texture throughout 13.3 - 13.4 - fine grained mafic dyke with 5% dark green elongate (2mm X 1mm) chloritic amygdules? 13.4 - 39.6 - «M dyke» 37.4 (contact) - fine grained mafic dyke, grey, 1-2% fsp phenocrysts (1-2mm size) 89.0 (veins)	60 30	- weak epidote alteration of feldspar crystals & epidote veinlets - patchy chlorite-carbonate zones - locally have 5% white skeletal leucoxene after ilmenite?		None. Tr ep in carb veins.
95.90 TO 101.45	FELSIC ASH-CHERT «FA,CHT»	Colour - grey. Grain Size - fine grained. Has pseudo breccia look due to numerous microfractures (carbonate-filled). - entire unit - very blocky with minor fault gouge		Very siliceous area = chert or alteration? - pervasive carbonate veining (microveinlets)		Tr disseminated pyrite.
101.45 TO 108.50	DIORITE «DIOR»	Colour - dark green. Grain Size - fine - medium grained. Massive - patches with good intergranular texture		1-2% carb-qtz veinlets.		None.

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108.50 TO 117.30	CHERT, FELSIC ASH «CHT,FA»	Colour - lighth grey to greenish-grey. Grain Size - fine grained. Massive. - unit has distinct siliceous cherty look from 108.5 - 115.0 115.0 - 117.3 - unit greenish green - less siliceous - looks more like ash - greenish colour due to proximity to diorite.		- numerous qtz-carb microveinlets in cherty section. 115.0 - 117.3 «W chl»	115.0 - 117.3 «Tr py, cp» - tr py, cp in stringers.	108.5 - 115.1 - very blocky core.
117.30 TO 281.55	DIORITE «DIOR»	Colour - greenish grey. Grain Size - medium grained. Feldspar-porphyratic, massive, 5% fsp crystals - ragged looking. - contact chilled & sharp but orientation obscured by blocky core. 131.6 - 152.3 Diorite has intergranular texture with patchy zones of chlorite-carbonate. 139.4 - 161.3 «S mt» 8-10% disseminated magnetite crystals. 161.3 - 180.2 Locally weakly magnetic. - 5-10% black elongate (5mm X 2mm) crystals = ilmenite? 220.0 (foliation) 264.8 - 281.55 3-5% fsp phenocrysts set in fine grained matrix. - lower contact obscured by blocky core.		1-2% carb-qtz-epidote veinlets. 131.6 - 152.3 «patchy chl-carb» 152.3 - 180.2 «M-S chl-carb» - moderate to strong chlorite-carbonate alteration with 5-10% ilmenite crystals - this phase of diorite is dark green - very little fsp. 180.2 - 281.55 «patchy chl-carb» - patchy chl-carb alteration + weakly epidotized fsp crystals - locally 2-3% ilmenite crystals in the carbonate rich areas.	None. 158.7 - tr cp in qtz-carb vein.	- margins of this diorite are feldspar porphyritic
281.55 TO 312.00	FELSIC ASH-TUFF «FA,FT»	Colour - light grey. Grain Size - fine grained. Weakly foliated. - unit consists of fine grained siliceous ash - siliceous nature may be primary or due to contact from 281.55 - 290.4 287.0 (foliation) 290.4 - 312.0		«W-M ser» - weakly to moderately sericitic	«tr - 1% py» - tr - 1% disseminated pyrite	280.7 - 283.8 - blocky core. 288.1 - 299.6 - blocky core. - due to foliation parallel to core

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		- have the odd qtz crystal & fsp crystal (<1mm size), 2-3% dark grey, wispy fragments (1mm X 5mm max. size) = primary feature or alteration - stretched parallel to foliation. 311.7 - 312.0 «FAULT» - fault gouge				axis.
312.00 TO 318.90	QP CRYSTAL TUFF «QPT»	Colour - light grey. Grain Size - fine - medium grained. 3-5% rounded to subrounded qtz crystals in fine grained ashy matrix. - qtz crystals 2-3mm diameter - unit massive to weakly foliated 314.3 (stringer)	35	«W-M ser» - weakly to moderately sericitic	«Tr - 1% py» Tr - 1% disseminated pyrite with sulphide stringers as noted below. 314.2 - 314.45 «15% py, 2-3% cp»	
318.90 TO 353.70	FELSIC TUFF «FT»	Colour - light to dark grey. Grain Size - fine grained. 1-2% qtz crystals set in fine grained ashy to siliceous matrix. - have the odd wispy grey fragment (1-2mm long) - Stretched parallel to weakly define foliation. 324.5 (foliation)	30	«W-M ser» - weakly to moderately sericitic - patchy siliceous areas from 318.9 - 332.2 - tr carb veinlets	«1% py, tr cp» - 1% disseminated py, tr cp; also occur as stringers. Larger sulphide-rich stringers are noted below: 324.9 - 325.3 «1-2% cp, 7-8% py» 326.1 - 326.5 «2-3% cp, 15% py» 331.1 - 331.15 «50% py, 1-2% cp»	
		349.0 (foliation)	30	332.2 - 350.9 «S sil» - unit pervasively siliceous - may be primary feature rather than alteration		339.2 - 340.6 - blocky core. 342.2 - 346.7 - blocky core. 349.6 - 353.7 - blocky core + minor fault gouge.
353.70 TO 400.20	INTER-MEDIATE TUFF «IT»	Colour - greenish grey. Grain Size - fine grained. Weakly foliated. - no qtz crystals - not as felsic as above unit - contact obscured by blocky core and fault gouge			«tr - 1% py» - tr - 1% disseminated pyrite	
				353.7 - 369.8 «W-M chl»		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		360.0 (foliation)	30	- patchy siliceous areas - weakly to moderately chloritic from 353.7 - 369.8	359.85 - 359.9 - 5% cp in qtz vein	360.3 - 369.3 - blocky core.
		375.0 (foliation)	40	- pervasive weak sericite alteration gives core a greyish colour	383.1 - 400.2 «1-2% py, tr cp» - 1-2% py, tr cp primarily in stringers	
		382.5 (foliation)	35			
		384.5 (stringer)	40	- tr - 1% carb veinlets	390.5 - 390.8 «15% py» 392.15 - 392.4 «25% py» - 25% medium grained pyrite in qtz-chl vein	
		389.9 - 400.2 Core has pitted look due to fsp crystals?				
		391.0 (foliation)	50			
		392.5 (foliation)	40		392.6 - 393.5 «7-8% py» - 7-8% py cubes in qtz-chl vein	
400.20 TO 411.05	DIORITE «DIOR»	Colour - green. Grain Size - fine - medium grained. 5-10% "ragged" feldspar crystals set in fine grained matrix - contact - blocky core.		«W ep» - weak epidote alteration	400.85 - 401.35 «qtz-chl vein» 404.15 - 405.2 «tr py, cp»	
411.05 TO 417.80	SILICIFIED SULPHIDE-RICH FELSIC TUFF «FT,sil,su»	Colour - greyish white. Grain Size - fine grained matrix, coarse gr. py. Massive.		411.05 - 417.8 «S sil, ser» - pervasive silicification with sericitic patches of host tuff	411.05 - 413.95 «5% py, tr cp» - sulphides as medium grained to fine grained disseminations in host rock & qtz vein 413/95 - 414.25 «30% py, 1-2% cp» - cp as fine grained streaks & disseminations - py as subhedral blebs up to 3-5mm diameter 414.25 - 415.15 «1-2% py» - as fine grained disseminations in blocky core	- Zone looks like stringer due to coarse grained nature of pyrite, lack of any bedding & qtz-rich matrix.
		415.15 - 415.6 Fine grained light green I dyke - contacts obscured by blocky core - unit is pervasively silicified, sericitic				

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		patches have pitted appearance similar to unit at 389.9 - 400.2				
		Lower contact of vein sharp 417.8 (quartz vein)	25			
417.80 TO 425.80	FELDSPAR-RICH CRYSTAL TUFF «IT,FP»	Colour - dark grey. Grain Size - fine - medium grained. 15-20% fsp crystals. - unit well-foliated 423.0 (foliation)	40	«W-M ser» - pervasive weak to moderate sericite	«1% py» - 1% py as fine grained disseminations and medium - coarse grained cubes in stringers	
425.80 TO 460.95	FELSIC ASH «FA»	Colour - grey to light grey. Grain Size - very fine grained. Well-foliated. 433.0 (foliation)	30	425.8 - 438.35 «W-M ser» - weak to moderate sericite 438.35 - 460.95 «S ser, sil» - pervasive intense sericite and silica-rich zone - minor carbonate veining - qtz veins are bluish grey, larger, sulphide-rich ones noted below: 439.9 - 442.1 «qv» - qtz vein & sericite with light beige micaceous mineral at 440.15 - 440.4 443.9 - 444.2 «qv» 444.35 - 444.6 «qv» 445.75 - 447.7 «qtz-chl-ser-carb v» 448.6 - 448.85 «qtz-ser-carb v»	425.8 - 439.9 «tr - 1% py» - py occurs as stringers approximately parallel to foliation 438.35 - 460.95 «2-3% py» - 2-3% py occurs as disseminations and stringers with more enriched areas noted below - sulphide-rich zones confined to more silica rich areas 439.9 - 442.1 «5% py, tr cp» - py as fine grained disseminations in qtz vein 443.9 - 444.2 «7-8% py» 444.35 - 444.6 «7-8% py» 445.75 - 447.7 «10-12% py» - py as anhedral disseminations up to 5mm across 448.6 - 448.85 «5% py»	
		445.75 (qtz vein) 447.7 (qtz vein) 448.0 (foliation)	20 45 50			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				{449.35 - 450.5} «qtz-ser v»	{449.35 - 450.5} «5% py» - py occurs as subhedral cubes in 3-5mm size but can have aggregates up to 1cm diameter	
				{450.6 - 451.5} «qtz-carb v» - carb occurs as microveinlets in qtz vein, also have minor chl - also have beige micaceous mineral at 450.9	{450.6 - 451.5} «35-40% py, tr cp» - semi-massive sulphides - py as anhedral to subhedral crystals - subrounded - up to 1cm diameter	
		452.55 (vein)	55	{452.4 - 452.55} «qtz v»	{452.4 - 452.55} «30% py» - py concentrated at edges of vein	
		453.5 (vein)	20	{453.5 - 455.2} «qtz-ser-carb v» - qtz vein approx. parallel to core axis	{453.5 - 455.2} «20% py» - py primarily in qtz vein - vein very coarse grained subhedral cubes (up to 1.5cm across)	
		455.7 (vein)	55	{455.7 - 455.8} «qtz vein»	{455.7 - 455.8} «40% py»	
		457.5 (edge of MS)	20	{456.4 - 457.5} «qtz-ser-carb» - qtz - sericite & minor carb matrix to sulphides	{456.4 - 457.5} «50-55% py, 1-2% cp» - semi-massive sulphides py as subhedral cubes up to 1cm across. Cp occurs interstitially to py.	
		458.0 (foliation)	40	{458.2 - 460.95} «qtz-carb» - siliceous matrix with minor carbonate	{458.2 - 460.95} «60-70% py, 1-2% cp» - semi-massive sulphides as above - subhedral py cubes up to 1cm across	
460.95 TO 480.35	DIORITE «DIOR»	Colour - green. Grain Size - medium grained. Fine grained chilled but irregular contact cuts off sulphides. - chill only 0.1m wide then into feldspar-porphyratic diorite 10% "ragged" greenish white crystals			None	
		{466.3 - 467.1} «5% mt» - 5% disseminated mt crystals				
		{471.5 - 472.2} «fa» - well-foliated felsic ash, greenish grey, fine grained strongly chloritic and sericitic		{469.0 - 471.5} «S chl-carb» - pervasive chlorite-carbonate alteration		

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.70	OVERBURDEN «OB»					Casing
3.70 TO 43.10	ANDESITIC TO INTER-MEDIATE CRYSTAL TUFF «AndT, IT»	Colour - grey to greenish grey. Grain Size - fine grained matrix. Well-foliated ash with 1-2% epidote patches & 3-5% fsp crystals. 4.2 - 5.05 «I dyke» - fine grained, light green, chilled contacts. 5.05 (contact) 7.0m (foliation) 15.35 - 24.45 «25-30% fsp» 25-30% fsp crystals in fine grained ashy matrix. 26.5m (foliation) 31.5 - 32.5 « m dyke» Fine grained dark green mafic dyke with 1-2% carbonatized fsp crystals and 1-2% pyroxene crystals. 33.6 - 41.6 «FP dyke» Fine - medium grained, grey feldspar-porphyritic dyke - massive.	50 45 45	«W chl, ep» Weakly chloritic with fsp crystals altered to epidote, 1-2% epidote "balls". 12.45 - 13.05 quartz-chl vein.	3.7 - 5.35 «5% py, tr cp» Sulphides as stringers and disseminations parallel to foliation. 15.35 - 33.6 «3-5% py» 3-5% disseminated pyrite in andesitic tuffs. Little to no sulphides in dykes.	33.0 - 35.7 Blocky core at upper contact of felsic dyke.
43.10 TO 77.10	DIORITE «DIOR»	Colour - light green. Grain Size - fine - medium grained. Massive; feldspar-porphyritic 5-7% "ragged" white feldspar crystals. Fine grained purplish grey FP, massive dykes at: 45.8 - 47.45 «FP dyke» 49.6 - 49.7 «FP dyke» 49.85 - 49.9 «FP dyke»		Locally weakly carbonate rich; + 1-2% qtz-carb veins.	None.	Unit = blocky core FP dykes related to felsic intrusions on Saltspring & not Myra volcanics as they cut diorite dykes which are younger than Myra.

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
77.10 TO 97.70	ANDESITIC CRYSTAL TUFF «And T»	Colour - green. Grain Size - fine grained. Generally well-foliated; fsp rich beds; 5% epidote patches = fragments and/or alteration. 78.0m (foliation) 86.55 - 87.8 «I dyke» Fine grained intermediate dyke, 1% fsp crystals; massive, light green - possibly a phase of diorite.	60	77.1 - 97.7 «W chl, ep» Weakly chloritic with epidote patches & epidotized fsp crystals.	77.1 - 97.7 «1-2% py» Pyrite occurs as disseminations and the odd stringer.	
97.70 TO 127.35	MAFIC FLOW NITINAT «MaF, Nit»	Colour - dark green Grain Size - fine grained. Generally massive to weakly foliated. Locally have patches with 5-10% weakly epidotized fsp crystals. 109.75 - 110.0 3% qtz-filled elliptical vesicles (up to 1xm long)		97.7 - 98.4 «qtz-ep vein» 98.7 - 99.1 «qtz-ep vein» 99.1 - 106.9 «S chl» Strong pervasive chlorite alteration. 106.9 - 127.35 «W chl, ep» Weak patchy chlorite 3-5% epidote patches and epidotized fsp crystals. - pyroxene crystals present in epidote patches. Qtz-ep-chl veins at: 119.95 - 120.1 124.3 - 124.45 124.95 - 125.2 127.1 - 127.35 (1% mt as stringers in vein)	97.7 - 98.4 «tr cp, mt veinlets» tr cp & mt veinlets in quartz vein. 98.7 - 99.1 «1% py» 99.1 - 106.9 «tr - 1% py» 106.9 - 127.35 «tr py»	Similar to MTS-34 - top of Nitinat. Epidote patches = remnant fragments of a flow breccia?
127.35 TO 131.75	INTER-MEDIATE CRYSTAL TUFF «IT»	Colour - greyish green Grain Size - fine grained. Well-foliated. 2-3% fsp crystals and ash interlayered with more siliceous (cherty layers). - contacts between underlying & overlying Nitinat flow are indistinct. 129.0m (foliation)	45	«W-M chl» - weakly to moderately chloritic.	«1-2% py» - pyrite occurs as disseminations aligned parallel to foliation.	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
131.75 TO 165.30	NITINAT MAFIC FLOW CRYSTAL TUFF? «MaF, MaT»	Colour - dark green. Grain Size - fine grained. Massive to weakly foliated. - fsp (5-10%) and weakly pyroxene (tr - 1%) porphyritic. - pyroxene crystals most noticeable in epidote patches. 142.0m (foliation)	45	«W, M chl, ep» - patchy chlorite (weak to moderate) with 5% epidote patches. 153.9 - 153.95 Qtz-py-mt vein.	«tr py» - pyrite as fine disseminations and/or stringers. 146.7 - 156.45 «2-3% py» Pyrite occurs as disseminations aligned parallel to foliation and in stringers where py is medium-coarse grained.	
165.30 TO 195.70	MAFIC CRYSTAL TUFF «MaT»	Colour - dark green. Grain Size - fine grained. Near upper contact have finely bedded ashy layers. - grading in fine - medium grained crystal tuff with the odd grey, cherty lithic fragment. (e.g. at 178.8 , 181.6) 165.6m (bedding)	60	«W chl» Weakly chloritic throughout. 185.3 - 185.9 Qtz-mt vein. 186.9 - 192.1 «S carb» - pervasive strong carbonate veining (5-10%).	186.9 - 192.1 «tr cp» - tr cp in carb. veins.	- unit lacks epidote "balls" of above unit.
195.70 TO 232.30	DIORITE WITH FP DYKES «DIOR, FP» «DYKES»	Colour - light green. Grain Size - fine - medium grained. Massive, chilled upper margin. - patches of diorite are feldspar-porphyritic (1-2% "ragged fsp crystals). - locally also have intergranular texture. 195.7m (contact)	45	«M carb» - pervasive carbonate alteration. 206.8 - 208.7 - FP bleached white adjacent to 1cm wide epidote vein which parallel core axis.	201.6 - cp in 0.5cm wide Qtz-carb veinlet.	
		203.1 - 208.7 «FP dyke» 203.1m 208.7 208.9 - 209.0 «FP dyke» 209.1 - 209.3 «FP dyke» 209.3m 215.55 - 215.85 «FP dyke»	45 60 65			

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		216.7 - 217.2 «FP dyke»				
		217.55 - 219.3 «FP dyke»				
		217.55m	50			
		219.8 - 221.0 «FP dyke»				
		219.8m	50			
						226.0 - 232.3 Blocky core.

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Sample	From (m)	To (m)	Length (m)	ASSAYS					GEOCHEMICAL					COMMENTS
				CU %	ZN %	PB %	AG gm/T	AU gm/T	CU ppm	ZN ppm	PB ppm	AG ppm	AU ppb	
6926	97.70	98.40	0.70						355	32	21	0.6	15	
6927	98.40	99.10	0.70						72	72	33	0.9	5	
6928	127.10	127.35	0.25						12	45	20	0.9	5	
6929	127.35	128.90	1.55						25	77	31	0.9	5	
6930	128.90	130.40	1.50						17	73	35	1.1	10	
6931	130.40	131.75	1.35						41	84	39	0.9	10	

Sample	From (m)	To (m)	Length (m)	SI02 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE2O3 %	MNO2 %	TIO2 %	BA %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	SB PPM	SR %	ZR %	TOTAL %
6901	20.10	23.20	3.10	48.66	17.04	8.10	8.68	.56	.15	12.26	.44	.70	.023	131	86	38	1.2	5	13	6	.03	.005	96.65
6902	81.10	84.10	3.00	51.32	18.74	5.42	4.64	2.75	1.48	9.27	.27	.75	.064	47	70	33	0.9	10	11	1	.03	.005	94.77
6903	102.10	105.10	3.00	56.50	15.32	3.14	8.17	.93	.71	10.51	.38	.57	.027	212	89	43	1.6	5	15	4	.02	.005	96.29
6904	147.80	150.80	3.00	54.18	16.10	2.63	7.73	1.93	.76	11.56	.30	.62	.043	34	70	30	1.1	5	12	5	.02	.005	95.89
6905	175.50	178.60	3.10	50.02	19.02	3.54	8.17	3.43	.51	9.80	.45	.72	.021	77	90	34	1.1	5	11	1	.03	.005	95.73