2009 Drilling Assessment Report
on the
Nucleus Property
with Assessment Applied to the
Caribou Creek Claims, Yukon

Freegold Mountain Area
NTS 115 I/6 and 115I/3
Lat. 62°15'N Long 137°11'W
Whitehorse Mining District

YA51192	Nucleus 004
YA51194	Nucleus 006
YA51196	Nucleus 008
YA51198-YA51213	Nucleus 010-025
YB07740-YB07805	BOO 001-066
YB07806-YB07815	BOO 077-086
YB07816-YB07819	BOO 101-104

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April 1, 2010

Period of Work:
May 31st, 2009 to July 23rd, 2009

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1 Summary

The Caribou Creek Claims are centred approximately 75 km northwest of the town of Carmacks and adjoin the Freegold Mountain Project owned by Northern Freegold Resources Ltd (NFR). In 2009 drilling on the Freegold Project was conducted on the Nucleus Property and, under an agreement with NFR, the drilling on the Nucleus 16 claim was applied as work to the Caribou Creek Claims owned by Mr. Bill Harris.

The Freegold Mountain Project is 100% owned by Northern Freegold Resources Ltd. and consists of 1051 contiguous claims covering approximately 200 square kilometers. Between May 31 and July 23, 2009 sixty four holes were drilled on the Nucleus Property located at the western end of the Freegold Mountain Project. This report covers the work done on four holes located on the Nucleus 16 claim as part of Grouping A, including the Caribou Claims, applied for on October 26th 2009.

The Freegold Mountain Project is located in the Dawson Range magmatic belt which straddles the boundary between the Stikine and Yukon-Tanana allocthonous marginal pericratonic terranes (Colpron et al. 2007; Hood et al. 2009). The regional geology is defined by a polydeformed, mainly metasedimentary sequence (Yukon-Tanana terrane) in which the deformation culminated with mylonitic corridors during a metamorphic event of lower amphibolitic grade. Beginning in the early Jurassic the basement of Yukon-Tanana terrane was intruded by several generations of granitic intrusives which culminated in the Cretaceous. The structural system defining the project area is dominated by early moderately to steeply dipping north westerly shear and fault zones with a dextral sense. The majority of the Freegold Project area is between two of these major regional structures: the regionally continuous Big Creek fault to the northeast and the Southern Big Creek fault to the southwest (Breitsprecher & Mortensen, 2004).

The Nucleus Property, consisting of 110 claims, is the most heavily explored portion of the Freegold Mountain Project and is centered at 62°20'N latitude and 137°19'W longitude. Exploration and prospecting in the region began in the 1930s but exploration on the Nucleus Property did not begin until 1968. A total of 43 diamond drill holes totaling 10,430.88 m and 21 Rotary Air Blast holes (RAB) totaling 1,241.36 m were completed in 2009, all on the Nucleus Property.

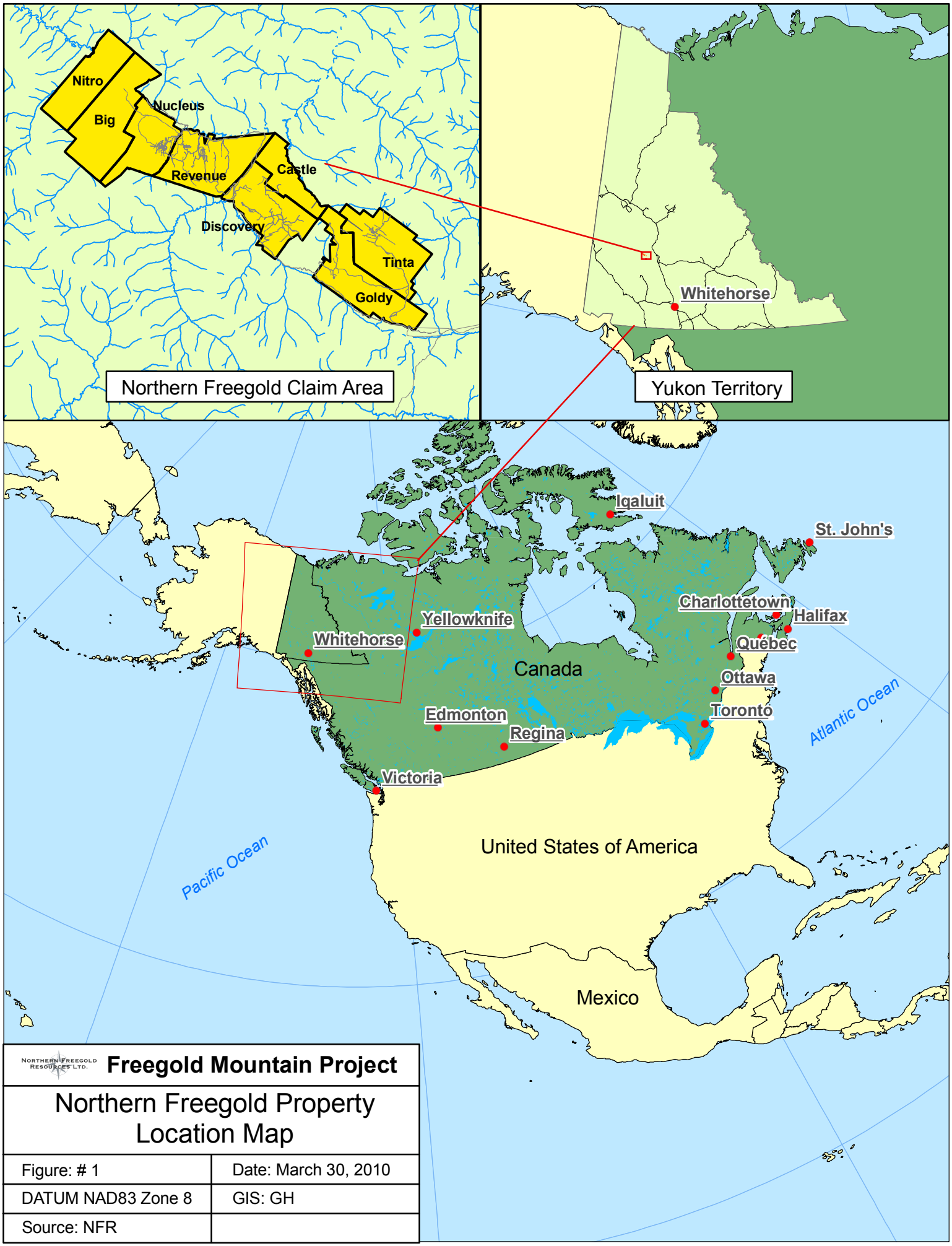
The Nucleus Property and deposit is dominated by the schistose metasedimentary basement intruded by a large microgranite body crosscut by the porphyry dyke suite. These dykes are oriented in a roughly NW-SE manner and are thought to represent zones of dilation and/or tension gashes as a result of a protracted brittle tectonic event. Three main gold-bearing mineralization styles have been observed on the Nucleus Property; veining and breccia fill, skarn-like massive sulphide replacement and massive sulphide veining. The skarn-like mineralization contains high grade lenses that roughly follow foliation within the schistose basement rocks (Miller, Dodd, & Dyck, 2010).

The 2009 drill program was successful in expanding the NI 43-101 compliant Nucleus Property resource released in July 2009 and confirming its continuity. The drilling assisted in defining northwest trending structures that control the geometry of higher grade zones associated with skarn material identified in previous years and allowed the identification of a higher grade resource. Further targets have also been identified to the north and south of the Nucleus deposit and warrant follow up drilling.

2 Introduction

The Nucleus Property is part of the Freegold Mountain Project located in the Dawson Range in south-central Yukon Territory (Figure 1) and is 100% owned by Northern Freegold Resources Ltd. (NFR). Drilling on the Nucleus property took place between May 31, 2009 and July 23, 2009 and was undertaken by Kluane drilling Ltd. 43 diamond drill holes and 21 Rotary Air Blast (RAB) holes were drilled, resulting in a total of 1,241.36 m of drilling.

Work conducted on the Nucleus 16 claim located on the Nucleus Property is being applied to Grouping A illustrated in Figure 2. The claims in Grouping A include the Caribou Claims owned by Bill Harris. Work done on the Nucleus 16 claim is being applied to the Caribou Claims as outlined in the application for a certificate of work dated October 26, 2009.



Northern Freegold Resources Ltd.

Freegold Mountain Project

Northern Freegold Property Location Map

Figure: # 1	Date: March 30, 2010
DATUM NAD83 Zone 8	GIS: GH
Source: NFR	

NFR Freegold Mountain Property Claims with Caribou Creek Claims

370000 380000 390000 400000

6920000 6910000 6900000

115I05

115I06

115I07

115I03

115I02

N

NORTHERN FREEGOLD RESOURCES LTD.

- Grouping A_NFR
- Grouping A_Caribou
- Grouping B_NFR
- Nucleus 16 - Centre claim Grouping A
- Revenue 16 - Centre claim Grouping B
- New NFR Claims
- Other Quartz Claims and Mineral Tenures
- First Nation Settlement Land
- Freegold Mountain Road

1:90,000

March 22, 2009

0 1.25 2.5 5 Kilometers

2.1 Property Description and Location

2.1.1 Location and Access

The Freegold Mountain Project is located approximately 70 km northwest of the town of Carmacks (Figure1) along the unpaved Freegold Road which, along with a network of subsidiary unpaved roads provides access to a large portion of the property. The Revenue camp is located along this road. Whitehorse and the town of Carmacks serve as supply centers for exploration in the area.

The Nucleus Property is located in NTS map sheet 115I/6 and is centered approximately at 62°20'N latitude and 137°19'W longitude. The Caribou Creek Claims are located to the southeast and are contiguous with the Greenstone Claims on the Freegold Mountain Project. The Caribou Creek claims are located on NTS map sheets 115I/6 and 115I/3 and centred at Lat 62° 15'N and Long 137° 11'W.

2.1.2 Claims

The Nucleus Property includes 110 contiguous two-post Yukon Quartz claims (Figure 2). Four drill holes listed in Table 1 were drilled on the Nucleus 16 claim. The work done on this claim is being applied to the claims listed below in Table 2 as part of Grouping A which includes the Caribou Claims.

Table 1: Drill holes on claim Nucleus 16 – centre claim Grouping A

Claim ID	Hole ID	Hole Type	Max Depth	Date Started	Date Completed
Nucleus 16	GRD09-139	DDH	295.66	09/07/09	14/07/09
Nucleus 16	GRD09-147	DDH	303.28	06/08/09	11/08/09
Nucleus 16	GRD09-150	DDH	298.71	11/08/09	15/08/09
Nucleus 16	GRD09-153	DDH	391.89	19/08/09	28/08/09

Table 2: Grouping A claims:

Grant Number	Claim Name	Expiry Date	Renewal Period Requested (years)	New Expiry Date	Claim Owner	% owned
90465-90468	Greenstone 001-004	28-Feb-13	4.00	28-Feb-17	Eric Weinecke/Bill Harris	51/49
91056	Greenstone 005	28-Feb-13	4.00	28-Feb-17	Eric Weinecke/Bill Harris	51/49
Y 21094	Greenstone 006	28-Feb-13	4.00	28-Feb-17	Eric Weinecke/Bill Harris	51/49
YA51190	Nucleus 002	28-Feb-17	4.00	28-Feb-21	NFR	100
YA51192	Nucleus 004	28-Feb-17	4.00	28-Feb-21	NFR	100
YA51194	Nucleus 006	28-Feb-17	4.00	28-Feb-21	NFR	100
YA51196	Nucleus 008	28-Feb-17	4.00	28-Feb-21	NFR	100
YA51198-YA51213	Nucleus 010-025	28-Feb-17	4.00	28-Feb-21	NFR	100
YA51215	Nucleus 027	28-Feb-17	4.00	28-Feb-21	NFR	100

YA51217-YA51218	Nucleus 029-030	28-Feb-17	4.00	28-Feb-21	NFR	100
YA60262-YA60265	Nucleus 041-044	28-Feb-17	4.00	28-Feb-21	NFR	100
YA60268-YA60269	Nucleus 047-048	28-Feb-17	4.00	28-Feb-21	NFR	100
YC09243-YC09248	More 003-008	28-Feb-18	4.00	28-Feb-22	NFR	100
YC09250	More 010	28-Feb-18	4.00	28-Feb-22	NFR	100
YC09336-YC09337	More 031-032	28-Feb-18	4.00	28-Feb-22	NFR	100
YC30165-YC30200	Mag 001-036	28-Feb-16	4.00	28-Feb-20	NFR	100
YC37001-YC37008	Mag 037-044	28-Feb-16	4.00	28-Feb-20	NFR	100
YC37009-YC37047	Nitro 001-039	25-Oct-09	4.50	28-Feb-14	NFR	100
YC37048	Nitro 040	28-Feb-13	4.00	28-Feb-17	NFR	100
YC37049	Nitro 041	25-Oct-09	4.50	28-Feb-14	NFR	100
YC37050	Nitro 042	28-Feb-13	4.00	28-Feb-17	NFR	100
YC37051	Nitro 043	25-Oct-09	4.50	28-Feb-14	NFR	100
YC37052	Nitro 044	28-Feb-13	4.00	28-Feb-17	NFR	100
YC37053	Nitro 045	25-Oct-09	4.50	28-Feb-14	NFR	100
YC37054	Nitro 046	28-Feb-13	4.00	28-Feb-17	NFR	100
YC37055	Nitro 047	25-Oct-09	4.50	28-Feb-14	NFR	100
YC37056	Nitro 048	28-Feb-13	4.00	28-Feb-17	NFR	100
YC40076-YC40094	Rage 001-019	28-Feb-13	4.00	28-Feb-17	Bill Harris	100
YC40095-YC40102	Froh 001-008	28-Feb-13	4.00	28-Feb-17	Bill Harris	100
YC40917-YC40924	Froh 021-028	28-Feb-15	4.00	28-Feb-19	Bill Harris	100
YC41307-YC41339	Big 001-033	28-Feb-18	4.00	28-Feb-22	NFR	100
YC47223-YC47232	Froh 047-056	28-Feb-16	4.00	28-Feb-20	Bill Harris	100
YC47242-YC47247	Au 008-013	28-Feb-16	4.00	28-Feb-20	NFR	100
YC47424-YC47426	Froh 066-068	28-Feb-16	4.00	28-Feb-20	Bill Harris	100
YC47429-YC47444	Big 035-050	28-Feb-16	4.00	28-Feb-20	NFR	100
YC47445-YC47460	Big 059-074	28-Feb-16	4.00	28-Feb-20	NFR	100
YC53685-YC53692	Big 051-058	28-Feb-16	4.00	28-Feb-20	NFR	100
YC54330	Big 034	28-Feb-16	4.00	28-Feb-20	NFR	100
			Caribou Creek Claims			
Y 21249	HOPE	29-Jan-14	4.00	29-Jan-18	Bill Harris/Mainsteele Developments Ltd.	49/51
Y 25895-Y 25900	BEST 001-006	29-Jan-15	4.00	29-Jan-19	Bill Harris/Mainsteele Developments Ltd.	49/51
Y 76048	HOPE 002	29-Jan-13	4.00	29-Jan-17	Bill Harris/Mainsteele Developments Ltd.	49/51
YA92778-YA92780	GREENSTONE 007-009	29-Jan-14	4.00	29-Jan-18	Bill Harris/Eric Wienecke	49/51
YA92869	GREENSTONE 010	29-Jan-14	4.00	29-Jan-18	Bill Harris/Eric Wienecke	49/51
YB07740-YB07805	BOO 001-066	29-Jan-15	4.00	29-Jan-19	Bill Harris	100
YB07806-YB07815	BOO 077-086	29-Jan-15	4.00	29-Jan-19	Bill Harris	100

YB07816-YB07819	BOO 101-104	29-Jan-15	4.00	29-Jan-19	Bill Harris	100
YB08026-YB08035	BOO 067-076	29-Jan-15	4.00	29-Jan-19	Bill Harris	100
YB08036-YB08042	CARA 001-007	29-Jan-15	4.00	29-Jan-19	Bill Harris/Mainsteele Developments Ltd.	49/51

Total Claims: 374

2.1.3 Climate, Physiography and Vegetation

The Dawson Range has a northern interior climate. Winters are long, have typically low precipitation, with temperatures often reaching -30° to -40°C. Summers are variably humid with common afternoon thunderstorms. The exploration season is from April until October.

The Nucleus Property lies in unglaciated terrain with sparse outcrop exposure. Rolling hills and mountain valleys are characteristic landforms. Elevations range from 750 metres to 1510 metres. Permafrost occurs near surface levels on north facing slopes and beneath one metre depth on south facing slopes. Two layers of white volcanic ash occur throughout most of the area as unconsolidated beds approximately a few centimeters thick, but in places their accumulation reaches over one meter, the oldest of these is thought to be the Old Crow tephra of approximately 150,000 years old, and the most recent is the White River Tephra of approximately 1250-1400 years in age (Breitsprecher & Mortensen, 2004). Vegetation consists of alpine grass and moss, willow and black spruce. Valleys are densely vegetated with spruce, birch and cottonwood. Alder and willow form dense covers over flat areas.

The property is on Crown land, entirely within the traditional territories of Little Salmon/Carmacks First Nation and Selkirk First Nation. Both have settled their land claims with the Yukon Territorial Government and the Federal Government.

3 Regional and Property Geology

3.1 Regional Geology and Tectonic Setting

Regional geological understanding is currently predominantly sourced from the various GSC and YGS mapping efforts, (Colpron et al. 2007, and Hood et al. 2009). Ages are primarily sourced from the 2004 YGS compilation prepared by Breitsprecher and J.K. Mortensen (2004) and are supplemented by work completed by Thierry Bineli Betsi and Vanessa Bennet (2010).

The Freegold Mountain Project is located in the Dawson Range magmatic belt which straddles the boundary between the Stikine and Yukon-Tanana allocthonous marginal pericratonic terranes. The Dawson range is bounded by the Tintina fault to the northwest and the Denali fault to the southwest, both of which are major NW-trending fault systems. The Dawson range extends over 350km from Carmacks to the Alaskan border (Figure 3).

The regional geology is defined by a polydeformed, mainly metasedimentary sequence (Devono-Mississippian "Yukon-Tanana terrane" or YTT) in which the deformation culminated with mylonitic corridors during a metamorphic event of lower amphibolitic grade. The Yukon-Tanana terrane represents a composite of accreted terranes and is separated from the adjacent ancient North American Continent by the Tintina Fault.

Beginning in the early Jurassic this basement of Yukon-Tanana terrane was intruded by several generations of granitic intrusives. The upper Triassic and early Jurassic saw the intrusion of the Big Creek Metaplutonic Suite and the Granite Mountain Batholith consisting of foliated hornblende-rich granitoids to hornblendites. This was followed in the mid Cretaceous by the Dawson Range Batholith, consisting of biotite and hornblende bearing granitoids. After which the Casino Plutonic Suite, consisting of mafic-poor to leucocratic granitoids, and the Coffee Creek granites intruded. In the late Cretaceous the last of the major intrusive suites, including the Bow Creek granite and Prospector Mountain Plutonic Suite, took their places in the sequence (Figure 4).

During the middle to late Cretaceous a period of volcanism resulted in the extrusion of the Mount Nansen and Carmacks Groups volcanic sequences and associated hypabyssal dykes (Mortensen et al. 2003). The middle Cretaceous events are thought to have been generated through partial melting of the Yukon-Tanana terrane basement. These may have been a precursor to the late Cretaceous intrusives which are thought to have been derived through subduction related mantle melting.

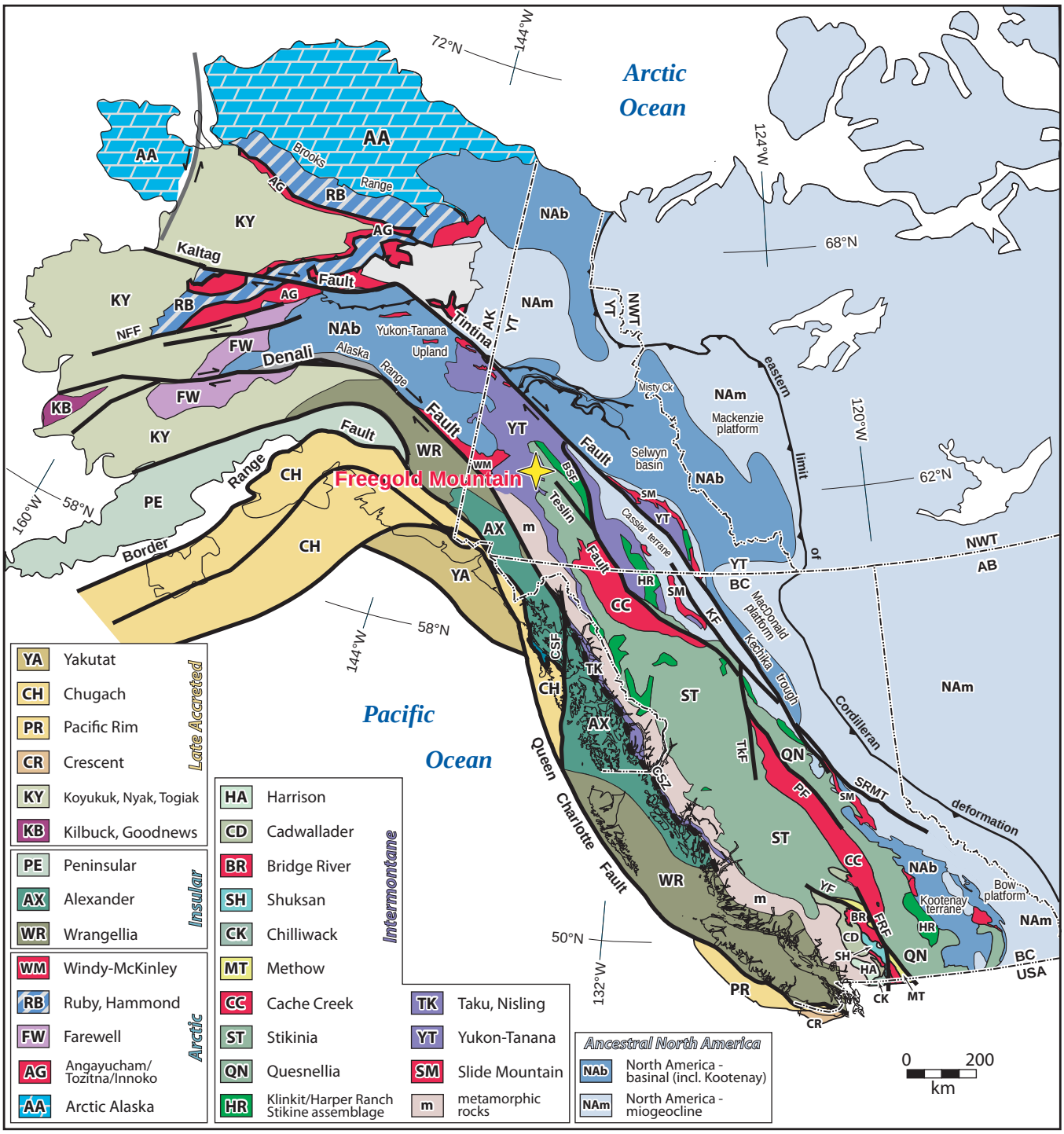


Figure 3. The collage of northern cordilleran terranes (Nelson and Colpron, 2007. The Freegold Mountain property lies at the contact of Stikinia and Yukon-Tanana terranes of the peri-Laurentian realm.

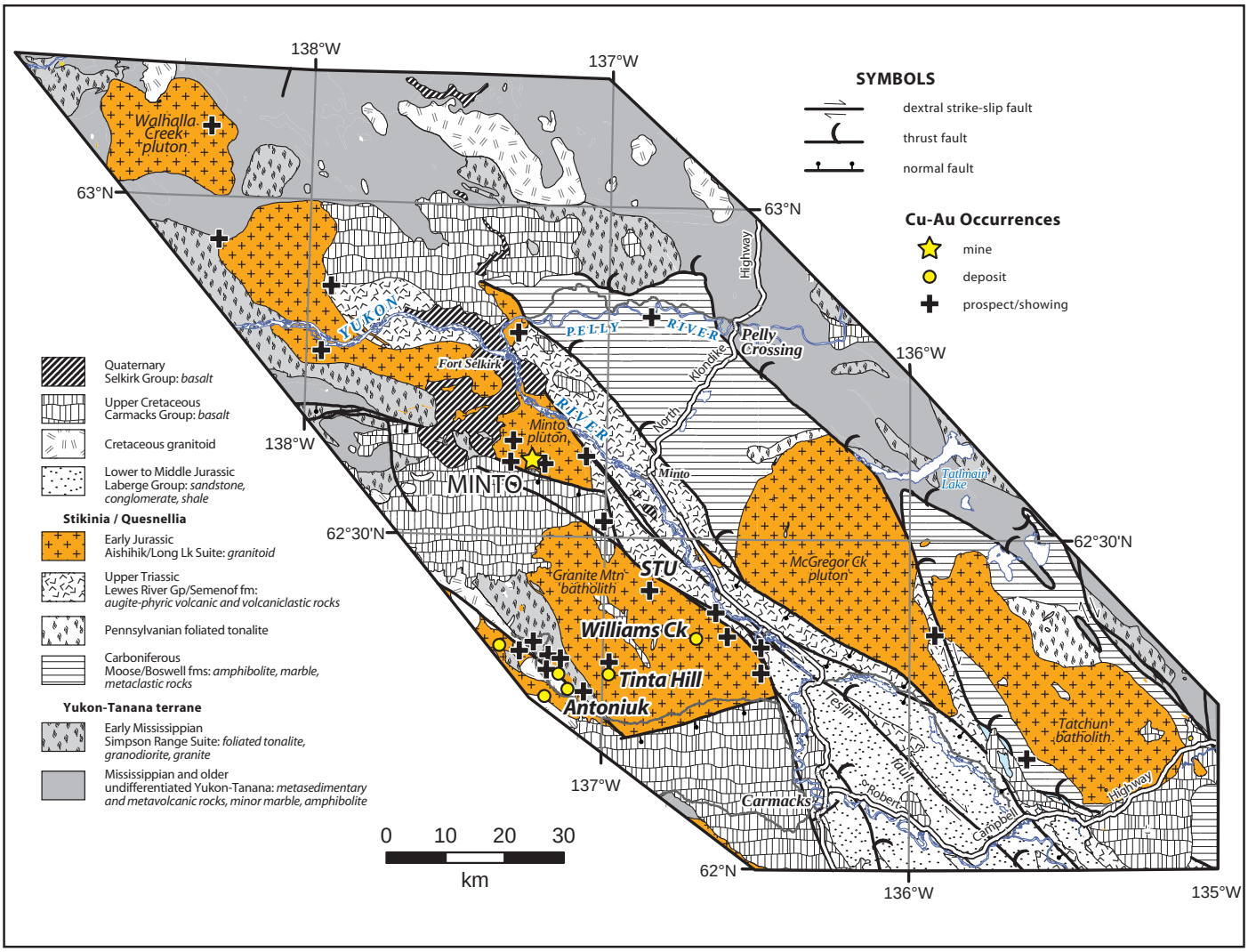


Figure 4. Regional geology of the Carmacks Copper-Gold porphyry and epithermal belts, showing the location of the Tinta Hill epithermal deposit, and Stu, Minto, Carmacks Copper (Willimas Creek), and Antoniuk porphyry deposits. Modified by Hood et al. (2009, in press).

3.2 Nucleus Property Geology

The Nucleus Property contains the most advanced stage exploration target of the Freegold Mountain Project. While the dominant historical geological model of Nucleus was of a zone with predominantly north-south features and associated mineralization trends and controls, the drilling of oriented core has shown instead a dominantly east west to north-west south-east trend particularly as associated with the earlier mineralizing events.

Geologically the Nucleus deposit and property is dominated by the schistose metasedimentary basement intruded by a large microgranite body crosscut by the porphyry dyke suite (Miller, 2010). These dykes are oriented in a roughly NW-SE manner and are thought to represent zones of dilation and/or tension gashes (Figure 5) as a result of a protracted brittle tectonic event. Their margins are often brecciated and contain increased gold grade.

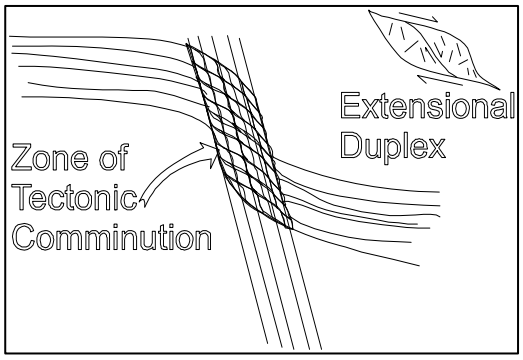


Figure 5: Dilational zone formation

The main Nucleus deposit lies directly to the north of the easternmost extent of a jog in a large, regional scale brittle-ductile shear zone. This shear zone shows evidence of having been active over protracted periods of time and of having been reactivated several times throughout its existence. It is thought that almost all of the intrusions, including the porphyry dykes, are associated with weakness introduced by the large-scale tectonic events, particularly in zones of dilation and that Nucleus lies at the tip of one of these zones (Miller, Dodd, & Dyck, 2010). In the Nucleus Property three main gold-bearing mineralization styles have been observed (Figure 6 to Figure 8):

A. Veining and breccia fill
   - Quartz + pyrite + chalcopyrite
   - Thought to be the latest event
   - Lower grade but makes up majority of Nucleus deposit
   - Likely coeval with porphyry dyke emplacement

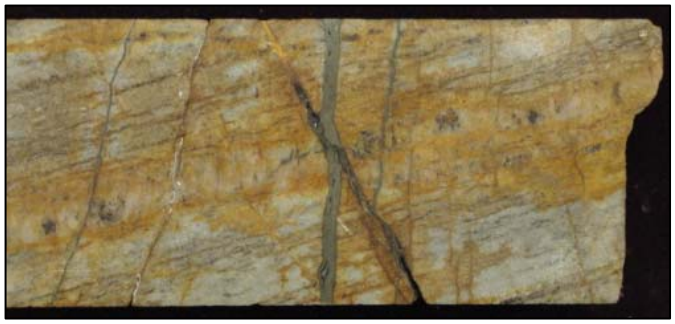


Figure 6: Quartz sulphide vein in schist

B. Skarn-like massive sulphide replacement
   - Pyrrhotite + pyrite + chalcopyrite + magnetite
   - Earlier than the breccia and veining
   - High grade lenses that roughly follow foliation within the schists

Figure 7 :Skarn-like massive sulphide replacement

C. Massive sulphide veining
   - Arsenopyrite + pyrite +/- chalcopyrite
   - Makes up the lowest volume of observed mineralizing events within the Nucleus area
   - Thought to be the earliest Au-mineralizing event within the Nucleus Property

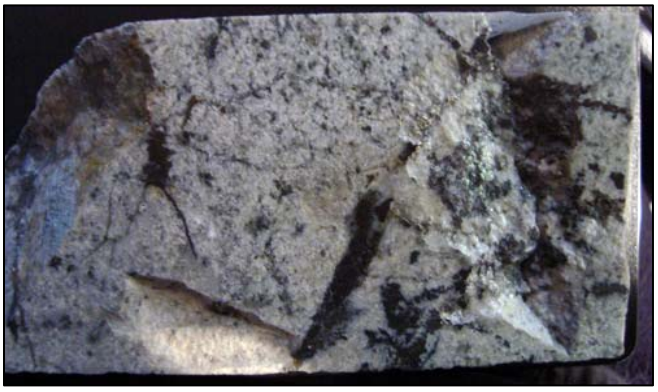


Figure 8: Massive sulphide veining

These are thought to be the result of several overprinting mineralization events, at least one of which was likely coeval with porphyry dyke emplacement. From petrographic work it is thought that arsenopyrite massive sulphide-veining was the earliest of the mineralizing events, followed by the pyrrhotite-rich, skarn-like massive sulphide replacement, with the latest mineralization being associated with the quartz veining and breccias (Colombo, 2009). This sequence makes sense both from observed cross-cutting relationships and from the expected mineralogical progression of a cooling Fe-S-As system (Kretschmar & Scott, 1976; Sharp et al. 1976).

4 Work History

Table 3: Summary of drilling on the Nucleus Property

Year	Company	Hole Type	Total Holes	Metres Drilled
1970	Kaiser Resources Ltd.	DDH	4	639.21
1970	Kaiser Resources Ltd.	Percussion	5	416.05
1984	NAT Joint Venture	DDH	3	294.44
1988	Big Creek Resources	Percussion	35	1328.16
1989	Big Creek Resources	DDH	6	592.09
1991	Big Creek Resources	DDH	5	738.53
2001	ATAC	DDH	6	2312.10
2004	ATAC	DDH	14	1832.01
2006	Northern Freegold Resources	DDH	26	4791.85
2007	Northern Freegold Resources	DDH	28	6336.90
2007	Northern Freegold Resources	RAB	32	1659.32
2008	Northern Freegold Resources	DDH	53	13287.45
2008	Northern Freegold Resources	RAB	28	1757.89
2009	Northern Freegold Resources	DDH	43	10430.88
2009	Northern Freegold Resources	RAB	21	1246.41
Total			**309**	**47663.29**

1968	Yukon Revenue Mines Ltd. staked a portion of the Nucleus zone as part of the larger property of Revenue. Until re-staking in 1980, Nucleus was explored as a zone of the Revenue Property, and as part of the now defunct Car and Com claims (Baird, 1968; Granger, 1970).
1970	In 1970 these claims were optioned along with the Revenue portion by Kaiser Resources Ltd. Kaiser Resources Ltd. drilled four diamond drill holes (639 m total) and five percussion holes (416 m total) on the Nucleus zone (Johnson, 1970).
1980-1984	Nat J.V. carried out grid and reconnaissance soil geochemistry, magnetic, and electromagnetic surveys, bulldozer trenching, and drilled three diamond drill holes (315 m total) on Nucleus Zone (Onasick & Archer, 1981; Eaton & Nelson, 1982; Eaton, 1983; Eaton, 1984).
1985-1991	Big Creek Resources Ltd. and Rexford carried out multi-element soil geochemical, magnetic and EM surveys, extensive mechanized trenching and drilled thirty-five RC holes (1283 m total) and eleven diamond drill holes (1330 m total) on Nucleus zone.
1986	NORDAC Mining Corp. carried out trenching and grid soil geochemical survey, and re-examined all pre-1985 drill holes (Eaton, 1986; Main, 1988; Becker & Eaton, 1991).
1996	YKR (originally Yukon Revenue) carried out ground magnetometry and VLF-EM surveys (Davis, 1996).
1999-2000	ATAC carried out structural mapping, excavator trenching, road construction, and line-cutting. They considered both Revenue and Nucleus as the same property under the name Golden Revenue (Becker, 2001).
2001	ATAC drilled six diamond drill holes (1202 m total), carried out 1092 m of excavator trenching, 16.9 line km of IP and 0.9 km of horizontal loop electromagnetic (HLEM) surveys on Nucleus zone (Becker, 2001).
2004	ATAC drilled fourteen diamond drill holes on Nucleus zone totaling 1858 m (Dumala, 2004).
2006	Northern Freegold Ltd. drilled twenty-six diamond drill holes (4798 m total) on Nucleus Zone, performed a petrographic alteration survey of the drilled holes, conducted a helicopter-borne domain electromagnetic geophysical survey over the project (Geotech Ltd, 2007) and performed a preliminary BLEG stream sediment sampling program (Robertson, 2007).
2007	Northern Freegold Resources Ltd. conducted exploratory work in the Nucleus zone including: twenty-eight diamond drill holes (6312 m total), infrared spectroscopic data of selected portions of the diamond and RAB drill holes, a petrographic alteration survey (Fonseca, 2008), limited prospecting and mapping, reprocessing of selected data from the 2001 IP survey and 2006 airborne surveys, 36 km line IP and geophysical rock characterization testwork. At the end of the field season an orthophoto (air photo) was taken over the entire project.
2008	Northern Freegold Resources Ltd. conducted exploratory work in the Nucleus zone including: fifty-three diamond drill holes (13287 m total) and twenty-eight RAB drill holes (1755 m total), infrared spectroscopic analyses of selected drill holes, limited prospecting and mapping (Tikhomirova, 2008), reprocessing of the 2006 magnetic and EM airborne surveys (Condor Consulting Ltd., 2009), production of a 3D chargeability survey, ground magnetic survey, and two radiometrics test lines (Aurora Geoscience, 2008). After the conclusion of the field season a preliminary resource calculation was carried out for the Nucleus deposit (Fonseca, 2009).
2009	Northern Freegold Resources Ltd. drilled forty-three diamond drill holes (10431 m total) and twenty-one RAB holes (1246 m total), executed a property wide stream sediment

sampling program (Lewis, 2009) and conducted outcrop mapping in both the Nucleus and Revenue Properties (Miller, 2010). Preliminary metallurgical testing for gold recovery was completed on coarse rejects from the 2009 Nucleus Drilling program (G&T Metallurgical Services Ltd., 2009). IP geophysics was done in the Nucleus zone and a ground magnetic and gamma-ray spectrometry survey was conducted across the Nucleus and Revenue Properties. A reinterpretation of property-wide 2006 helicopter borne VTEM and magnetics survey (Geotech, 2006) was also undertaken (Costantini, 2009). After the conclusion of the field season the resource calculation was updated for the Nucleus deposit by Geovector.

5 2009 Diamond Drilling Program

Beginning on May 31, 2009 and ending on July 23, 2009, forty-three oriented diamond drill holes were completed in the Nucleus zone by two diamond drill rigs. These drill holes totaled 10,430.88 meters in length. In addition to the diamond drill holes, twenty one RAB drill holes totaling 1,241.36 meters were drilled on the Nucleus Property. The diamond drilling contractor was Kluane Drilling Ltd. and the RAB Drilling was contracted to Stan Wolarek, both of Whitehorse. A D-7 bulldozer was sub-contracted from H. Coyne and Sons Ltd. of Whitehorse to build drill sites and access roads as well as to move the drills.

Holes were drilled using NTW (thin wall) core size and minimal use of drill muds and other additives. GRD09-132 was drilled using an NTW from 0-276.89 m and BTW from 276.89-455.68 m. Core was oriented using the EZ-Mark system. The co-ordinates for the reported drill holes are listed in Table 4 and the locations shown in Figure 9.

Average core recoveries are listed in Table 5. Lower recovery values generally associated with intensely oxidized zones occurring predominantly at the top of the hole with lower values also occurring within heavily fractured or faulted zones.

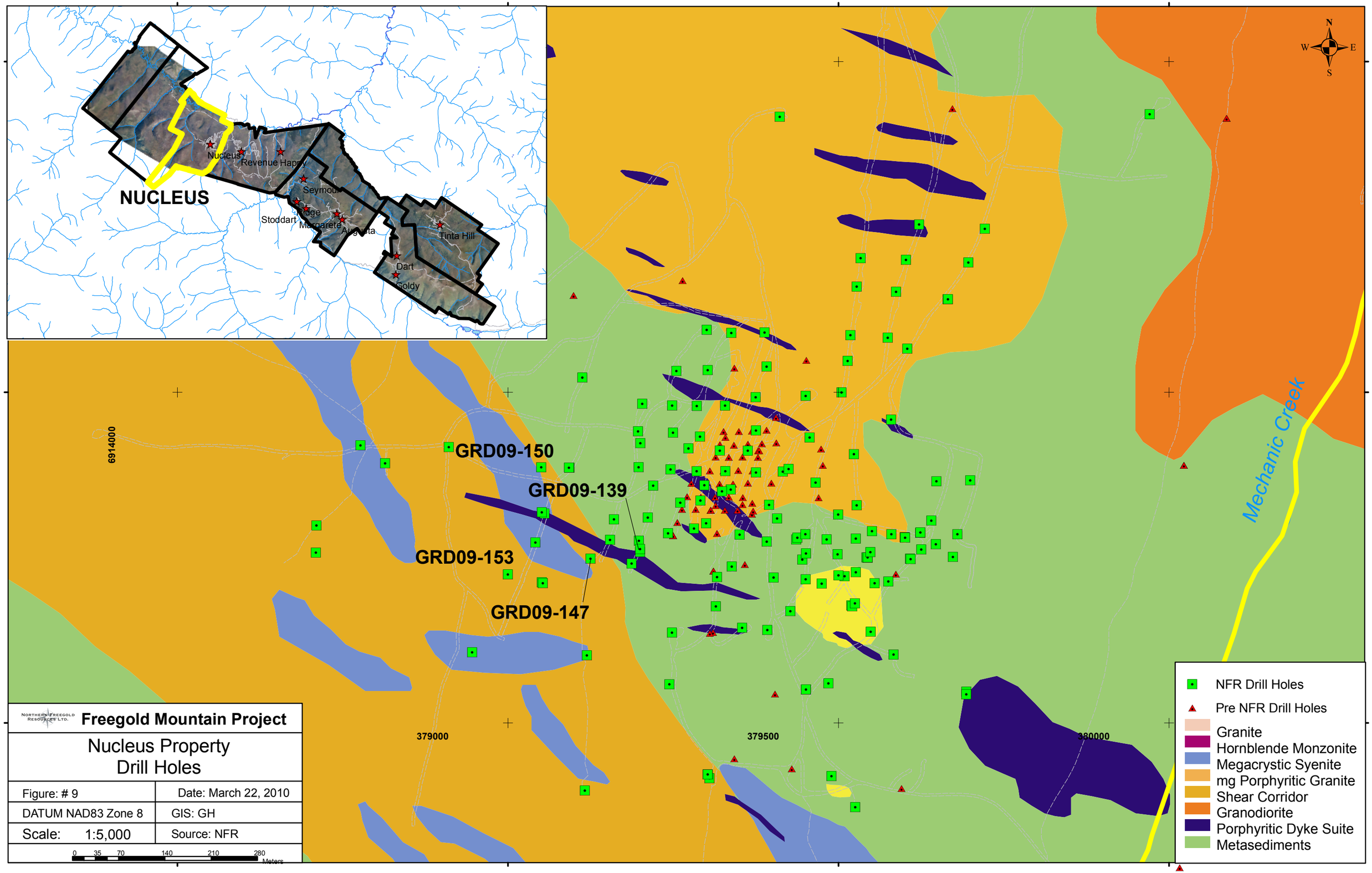
Table 4: Drill hole locations

Hole ID	Easting*	Northing	Elevation (m)	Total Depth (m)	UTM Azimuth (°)	Dip(°)
GRD09-139	379200	6913763	955.02	295.66	1	-50
GRD09-147	379125	6913749	970.05	303.28	0	-59
GRD09-150	379050	6913886	997.42	298.71	0	-63
GRD09-153	379000	6913725	989.33	391.89	0	-50

*UTM Zone 8, NAD 83

Table 5: Core recovery

Claim ID	Hole ID	Total Length (m)	Total Recovery (m)	Recovery %
Nucleus 16	GRD09-139	295.66	266.00	89.97
Nucleus 16	GRD09-147	303.28	286.36	94.42
Nucleus 16	GRD09-150	298.71	278.52	93.24
Nucleus 16	GRD09-153	391.89	359.78	91.81


NUCLEUS
Nucleus
Revenue Happy
Seymour
Stoddart
Ridge
Margarete
Augusta
Tinta Hill
Dart
Goldy
N
W
E
S
GRD09-150
GRD09-139
GRD09-153
GRD09-147
6914000
379000
379500
380000
Mechanic Creek
NFR Drill Holes
Pre NFR Drill Holes
Granite
Hornblende Monzonite
Megacrystic Syenite
mg Porphyritic Granite
Shear Corridor
Granodiorite
Porphyritic Dyke Suite
Metasediments
Northern Freegold Resources Ltd.
Freegold Mountain Project
Nucleus Property
Drill Holes
Figure: # 9
Date: March 22, 2010
DATUM NAD83 Zone 8
GIS: GH
Scale: 1:5,000
Source: NFR
0 35 70 140 210 280
Meters

The drill core from all holes were cleaned, photographed and measured. Recoveries and RQD were determined. The core was logged and marked by the logging geologist for sampling by sawing or splitting. Sample intervals were chosen based on changes in mineralization, alteration and lithology. The entire length of each hole was split and one cut half of the core being sent for analysis and the other half returned to the core box for future reference and/or resampling. Field duplicates are made by quartering the core sent for analysis. The core boxes are stored at the Revenue Camp and are currently stacked on pallets. Average sample lengths are listed in Table 6.

Table 6: Average sample lengths

Hole ID	Average Sample Length (m)
GRD09-139	1.53
GRD09-147	1.35
GRD09-150	1.41
GRD09-153	1.51

From May 31 to July 9 2009 samples were sent to EcoTech Laboratory in Kamloops. After July 9th all further samples were sent to ALS Chemex in Vancouver. As a result portions of holes GRD09-132 to GRD09-134 were assayed at different labs. At both labs the core was assayed for gold by 30 g fire assay with an AA finish, followed by aqua regia digestion and ICP finish; other elements were analyzed by four acid digestion with an ICP-AES finish. All sample batches included duplicate core samples, commercial standards, blank samples as well as pulp duplicates which were analyzed at ALS Chemex at the start of the field season and then at Eco Tech after July 9th. Material collected from outcrops of Bow Creek granite near the point where the Freegold Road crosses Seymour Creek was used as the blank. This rock gives consistently low values in the elements of economic interest, is similar in hardness to the drill core and has proven to be adequate for testing in matters of possible contamination.

5.1 Drill Hole Summaries, Grouping A

GRD09-139

GRD09-139 is located along section E379197 with an azimuth of one degree and a dip of -50°. It reaches a total depth of 295.66 m and was drilled to test for skarn material to the west of GRD07-051.

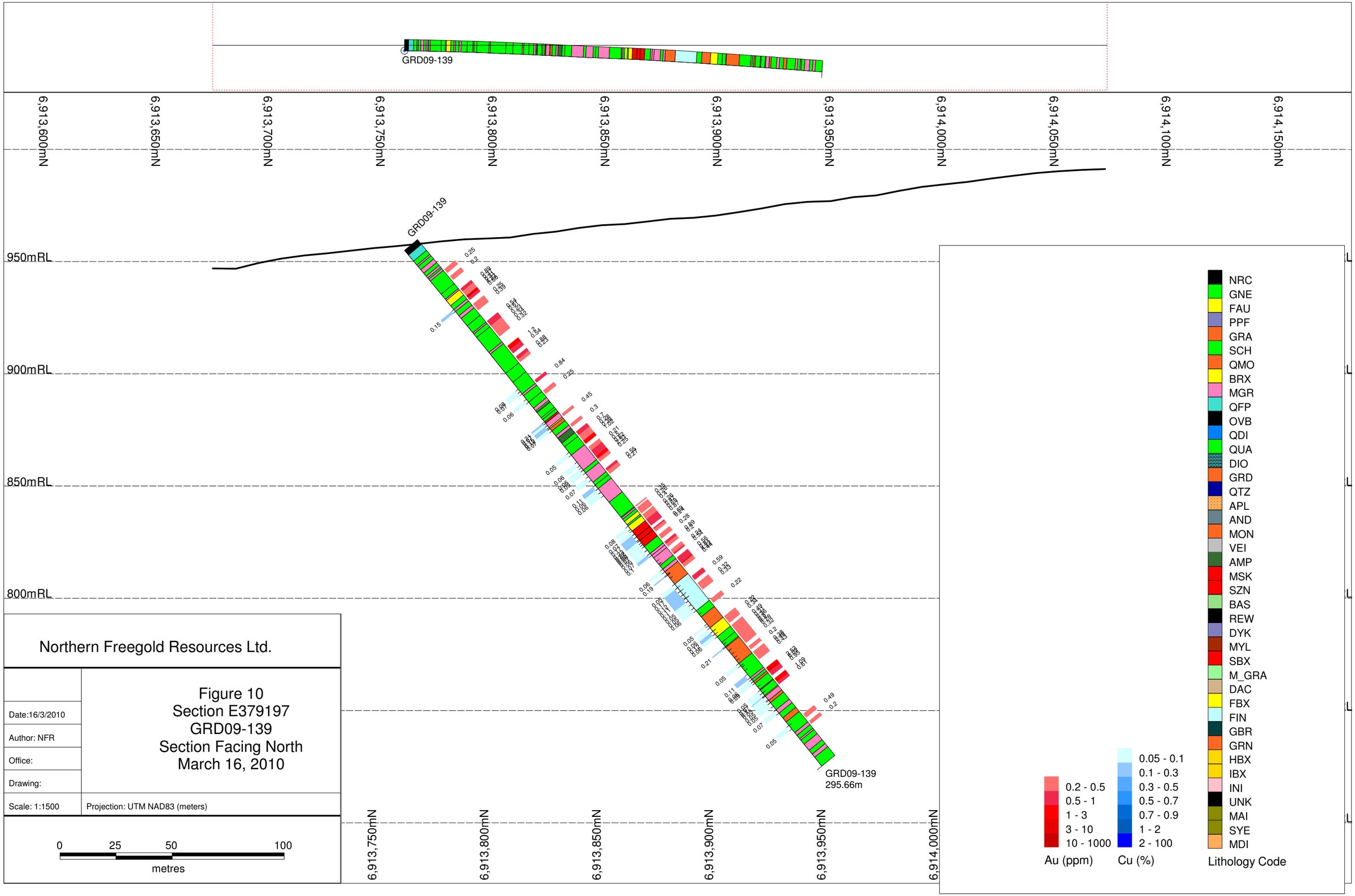
The top of the hole is dominantly schist with minor interfingered microgranite, a fine-grained intrusive of granitic composition. A small porphyry dyke is present at the very top of the hole but it is un-mineralized (Figure 10). Mineralization is largely hosted in the schists although the interval from 29.1 to 35.5 m (Table 7) is associated with a fault breccia. After about 100 m the amount of microgranite and granite increases until about 227 m where the lithology reverts to predominantly schists with smaller intervals of microgranite. Included in the more granitic section are a 14 m fine grained intrusive dyke which is patchily and weakly mineralized and an eight metre sulphide breccia following a fault zone. In general it is observed that the areas showing elevated gold and copper values are associated with pyrite veins containing chalcopyrite and arsenopyrite.

The oxidized zone in this hole is very deep, extending to about 225 m depth. The foliation to core axis is steep between 50 m and 160 m where the angle to core axis ranges from about 70 to 80 degrees.

Table 7: Significant results for GRD09-139

Hole ID		From (m)	To (m)	Interval (m)	Au g/t	Cu %
GRD09-139		29.1	35.5	6.40	1.26	**
	Including	**33.2**	**34.4**	**1.20**	**4.22**	**
		47.7	69.4	21.7	0.41	**
	Including	**62.0**	**64.0**	**2.00**	**1.20**	**
		110.9	133.1	22.2	0.50	**
	Including	**124.95**	**126.2**	**1.25**	**2.51**	**
		153.1	166.5	13.4	0.41	**
		173.8	188	14.2	0.51	**
	Including	**185.9**	**186.3**	**0.42**	**4.22**	**0.19**
		236.8	255.2	18.4	1.00	**
	Including	**246.0**	**250.2**	**4.20**	**3.08**	**

** Cu values <0.10%; NSR – No significant results


GRD09-139
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6,913,650mN
6,913,700mN
6,913,750mN
6,913,800mN
6,913,850mN
6,913,900mN
6,913,950mN
6,914,000mN
6,914,050mN
6,914,100mN
6,914,150mN
950mRL
900mRL
850mRL
800mRL
GRD09-139
GRD09-139
295.66m
6,913,750mN
6,913,800mN
6,913,850mN
6,913,900mN
6,913,950mN
6,914,000mN
NRC
GNE
FAU
PPF
GRA
SCH
QMO
BRX
MGR
QFP
OVB
QDI
QUA
DIO
GRD
QTZ
APL
AND
MON
VEI
AMP
MSK
SZN
BAS
REW
DYK
MYL
SBX
M_GRA
DAC
FBX
FIN
GBR
GRN
HBX
IBX
INI
UNK
MAI
SYE
MDI
Lithology Code
0.2 - 0.5
0.5 - 1
1 - 3
3 - 10
10 - 1000
Au (ppm)
0.05 - 0.1
0.1 - 0.3
0.3 - 0.5
0.5 - 0.7
0.7 - 0.9
1 - 2
2 - 100
Cu (%)
Northern Freegold Resources Ltd.
Date:16/3/2010
Author: NFR
Office:
Drawing:
Scale: 1:1500
Projection: UTM NAD83 (meters)
Figure 10
Section E379197
GRD09-139
Section Facing North
March 16, 2010
0
25
50
100
metres

GRD09-147

GRD09-147 is located 75 metres to the west and slightly south of GRD09-139 (Figure 11) with an azimuth of zero degrees and a dip of -59°. The drill hole is 303.28 m and was drilled to test for skarn material east of GRD07-051 and to test for mineralization in the porphyritic dykes.

Near the top of the drill hole GRD09-147 is dominantly schist with an interval of amphibolite preceding a large porphyry dyke, likely part of the late Cretaceous volcanism that produced the Mr. Nansen and Carmacks Groups (Figure 11). The intense shearing represented by the mylonite observed further east is not present here although there are a few minor mylonitic zones usually preceding a fault. Microgranitic units are small, generally no more than two metres wide. Mineralization is patchy above 150 m were it becomes more continuous until about 275 m and includes a 24.87 m zone of 0.76 g/t Au from 150.32 to 175.19 m (Table 8).

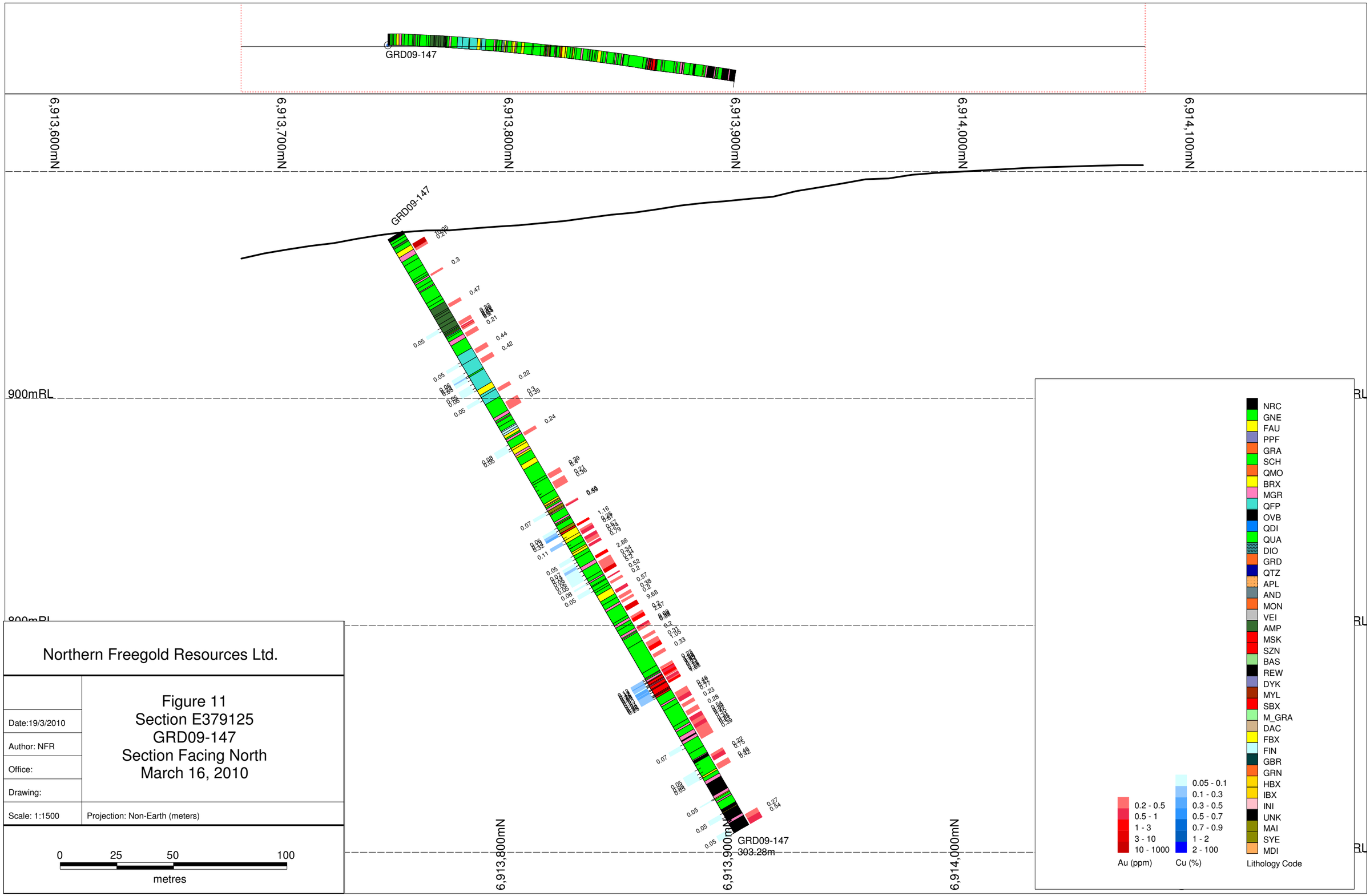
Mineralized skarn was encountered between 225.45 m and 234.50 m associated with a minor microgranite intrusion. The skarn is vuggy with massive boxwork pyrite, chalcopyrite and pyrrhotite. There are also zones of massive pyrrhotite with blebs of chalcopyrite and chalcopyrite rimming quartz and pyrrhotite. The skarn material also contains crystalline quartz with blebs of pyrite, chalcopyrite and pyrrhotite and includes a 6.66 m interval of 1.06 g/t Au and 0.23 % Cu (Table 8).

Foliation angle to core axis generally steepens down hole. From the top of the hole until about 185 m the foliation ranges from about 40° to 60° to core axis. From 185 m to the end of the hole the angle steepens to between 70° and 80° to core axis. Oxidation is variable to about 140 m after which no oxidation is noted to the end of the hole.

Table 8: Significant results for GRD09-147

Hole ID		From (m)	To (m)	Interval (m)	Au g/t	Cu %
GRD09-147		7.22	9.49	2.27	10.05	**
		49.96	50.38	0.42	51.4	**
		150.32	175.19	24.87	0.76	**
	Including	**173.59**	**175.19**	**1.60**	**5.20**	****
		192.50	194.50	2.00	9.68	**
		198.79	200.29	1.50	2.87	**
		213.00	215.00	2.00	1.05	**
		224.84	231.50	6.66	1.06	0.23

** Cu values <0.10%; NSR – No significant results



Northern Freegold Resources Ltd.

	Figure 11 Section E379125 GRD09-147 Section Facing North March 16, 2010
Date:19/3/2010	
Author: NFR	
Office:	
Drawing:	
Scale: 1:1500	Projection: Non-Earth (meters)

GRD09-150

GRD09-150 is located 80 m west and 140 m north of GRD09-147, along the same northing as GRD09-135 (Figure 12). It is 298.71 m long with an azimuth of zero degrees and a dip of -63°. The hole was drilled to test for the extent of skarn material and test the area west of E379125.

The drill hole is dominantly schists with minor faulting and breccia zones. Microgranites are rare, the most significant interval occurring between 239 m and 248 m (Table 9). Two porphyry dykes and three fine grained intrusives are also noted. These units are generally unmineralized, however some mineralization does occur along the contacts between the schist and the intrusions. Weakly mineralized sulphide zones are present at about 106 m and 209 m. These units have an apparent width of one metre, are weakly mineralized and are also present in nearby drill holes.

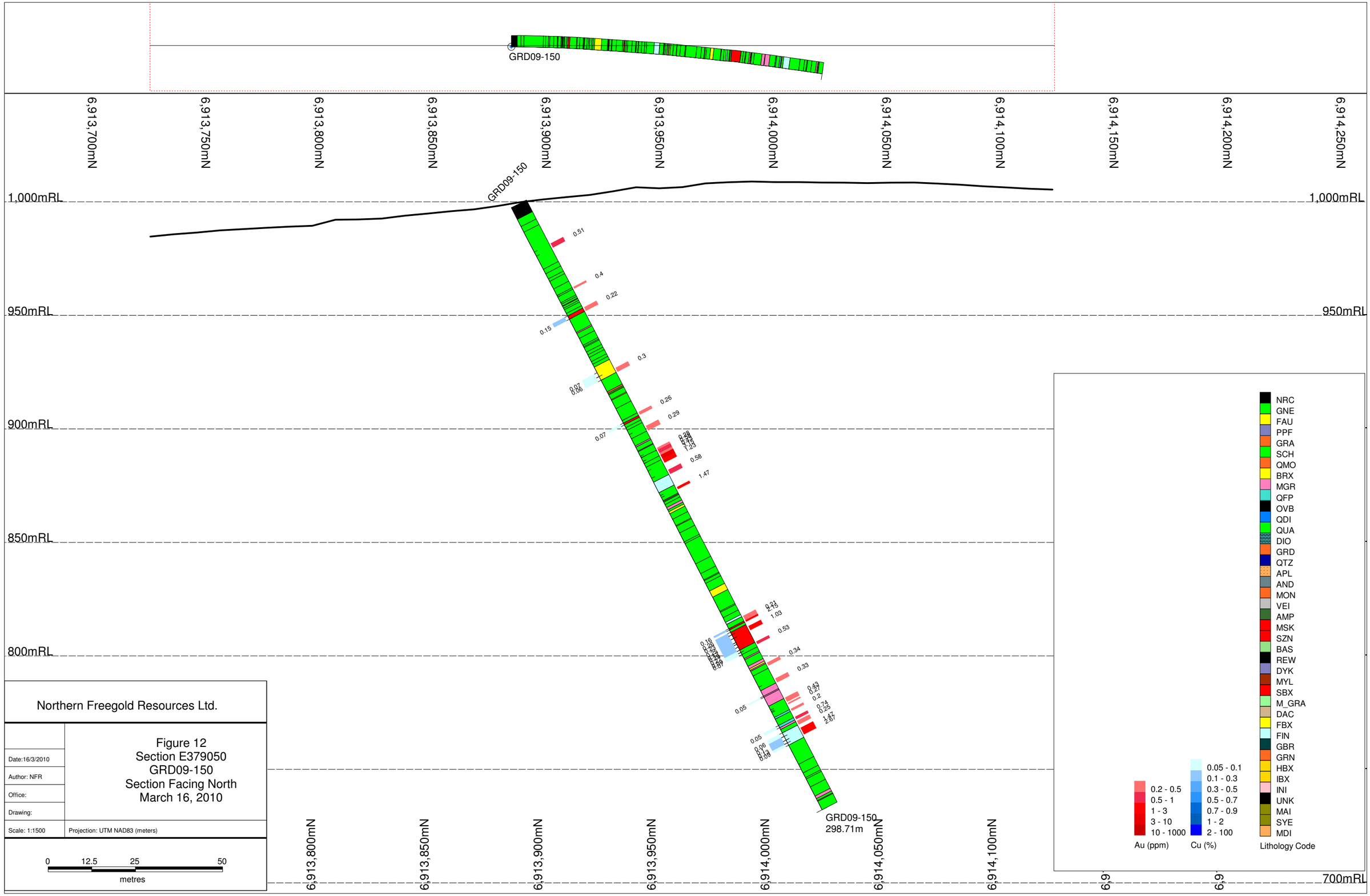
The most significant zone of skarn material is between 209 m and 220 m. Although this unit contains massive boxwork pyrite with chalcopyrite and patchy arsenopyrite there is only patchy gold mineralization. Copper values are much more consistent with 0.22 % copper found from 208.86 m to 219.44 m (see Appendix 2 and 3 for batch sheets and assay certificates).

Foliation is relatively consistent in this hole, commonly between 70° and 80° to core axis. Oxidation is continuous in varying intensities until 105 m after which no oxidation is noted to the end of the hole. The lack of oxidation corresponds to a general increase in the observed amount of sulphides.

Table 9: Significant results for GRD09-150

Hole ID		From (m)	To (m)	Interval (m)	Au g/t	Cu %
GRD09-150		124.20	130.69	6.49	1.47	**
	Including	**127.01**	**130.69**	**3.68**	**2.19**	****
		142.89	143.82	0.93	1.47	**
		208.86	209.51	0.65	2.19	0.16
		211.84	213.66	1.82	1.03	0.23
		256.85	265.45	8.60	0.91	**
	Including	**262.28**	**265.45**	**3.17**	**1.97**	**0 .11**

** Cu values <0.10%; NSR – No significant results


GRD09-150
6,913,700mN
6,913,750mN
6,913,800mN
6,913,850mN
6,913,900mN
6,913,950mN
6,914,000mN
6,914,050mN
6,914,100mN
6,914,150mN
6,914,200mN
6,914,250mN
1,000mRL
950mRL
900mRL
850mRL
800mRL
700mRL
GRD09-150
GRD09-150
298.71m
NRC
GNE
FAU
PPF
GRA
SCH
QMO
BRX
MGR
QFP
OVB
QDI
QUA
DIO
GRD
QTZ
APL
AND
MON
VEI
AMP
MSK
SZN
BAS
REW
DYK
MYL
SBX
M_GRA
DAC
FBX
FIN
GBR
GRN
HBX
IBX
INI
UNK
MAI
SYE
MDI
Lithology Code
0.2 - 0.5
0.5 - 1
1 - 3
3 - 10
10 - 1000
Au (ppm)
0.05 - 0.1
0.1 - 0.3
0.3 - 0.5
0.5 - 0.7
0.7 - 0.9
1 - 2
2 - 100
Cu (%)
Northern Freegold Resources Ltd.
Figure 12
Section E379050
GRD09-150
Section Facing North
March 16, 2010
Date:16/3/2010
Author: NFR
Office:
Drawing:
Scale: 1:1500
Projection: UTM NAD83 (meters)
0
12.5
25
50
metres

GRD09-153

GRD09-153 is the western most hole considered in this report and was drilled as a step out hole from GRD08-111 and GRD08-113 to test the extent of mineralization encountered in those holes and explore for skarn material at depth. It is 391.89 m long at an azimuth of zero degrees and a dip of -50° (Figure 13).

Schists dominate the hole with minor microgranite intrusions. The middle of the drill hole from about 117 m to 240 m represents an area of increased strain demonstrated by mylonitic zones and a zone of faulting. This area is bounded by two porphyritic dykes and is generally poorly mineralized, the exception being 118.52 to 123.37 m at 0.62 g/t (Table 10). The most continuous areas of mineralization are at the top of the hole in an area of significant faulting over about 35 m which contains 14.44 m at 0.55 g/t Au (Table 10).

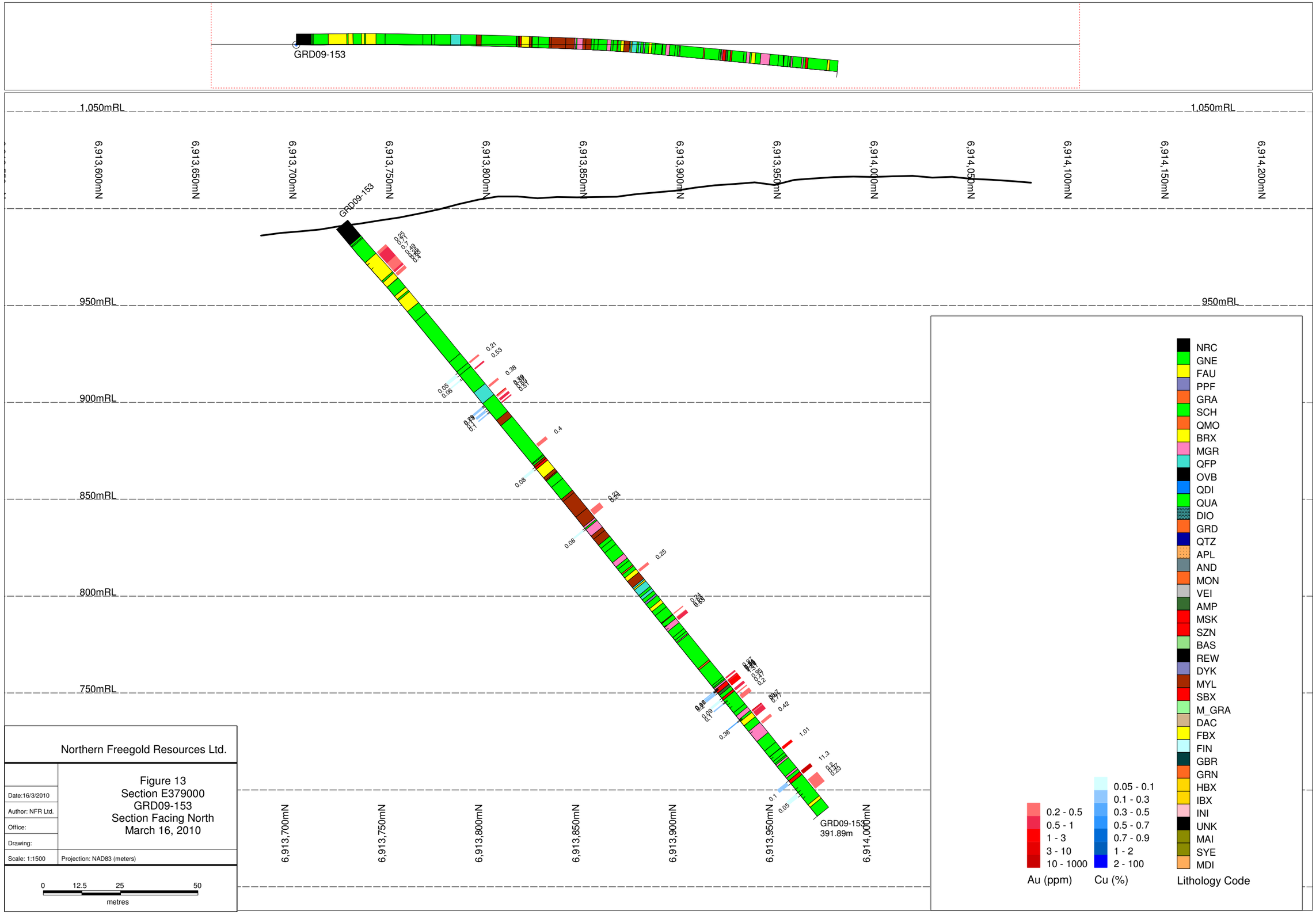
Mineralization after about 306 m is associated with two minor skarn/sulphide zones and an amphibolite schist resulting in increased gold values and locally increased copper values. The skarn material is pyrite rich however it does not contain any pyrrhotite or chalcopyrite as noted in other holes. A sulphide breccia zone was encountered between 368.30 m and 370.10 m with 11.30 g/t Au and 0.10 % Cu. Although these areas contain increased sulphide deposition, the highest gold grade is associated with a bleached muscovite schist that is brecciated and contains pyrite and chalcopyrite in the breccia cement as well as minor chalcopyrite in sulphide stringers from 327.96 to 328.33 m with 37.70 g/t Au and 0.38 % Cu.

Foliation is generally steep and very consistent along the entire drill hole most commonly between 60° and 80° to core axis. Oxidation is consistent but irregular in intensity until about 125 m after which no oxidation is observed. Weak disseminated pyrite and/or sulphides are noted throughout the hole below the oxidation zone.

Table 10: Significant results for GRD09-153

Hole ID		From (m)	To (m)	Interval (m)	Au g/t	Cu %
GRD09-153		24.38	38.82	14.44	0.55	**
		118.52	123.37	4.85	0.62	**
	Including	**118.52**	**118.97**	**0.45**	**3.79**	**0.29**
		306.26	316.42	10.16	0.83	**
	Including	**308.13**	**311.44**	**3.31**	**1.79**	**0.12**
		327.96	331.70	3.74	4.43	**
	Including	327.96	328.33	0.37	38.70	0.38
		352.57	353.84	1.27	1.01	**
		368.30	370.10	1.80	11.30	0 .10

** Cu values <0.10%; NSR – No significant results


GRD09-153
1,050mRL
950mRL
900mRL
850mRL
800mRL
750mRL
6,913,600mN
6,913,650mN
6,913,700mN
6,913,750mN
6,913,800mN
6,913,850mN
6,913,900mN
6,913,950mN
6,914,000mN
6,914,050mN
6,914,100mN
6,914,150mN
6,914,200mN
GRD09-153
391.89m
NRC
GNE
FAU
PPF
GRA
SCH
QMO
BRX
MGR
QFP
OVB
QDI
QUA
DIO
GRD
QTZ
APL
AND
MON
VEI
AMP
MSK
SZN
BAS
REW
DYK
MYL
SBX
M_GRA
DAC
FBX
FIN
GBR
GRN
HBX
IBX
INI
UNK
MAI
SYE
MDI
Lithology Code
0.2 - 0.5
0.5 - 1
1 - 3
3 - 10
10 - 1000
Au (ppm)
0.05 - 0.1
0.1 - 0.3
0.3 - 0.5
0.5 - 0.7
0.7 - 0.9
1 - 2
2 - 100
Cu (%)
Northern Freegold Resources Ltd.
Figure 13
Section E379000
GRD09-153
Section Facing North
March 16, 2010
Date:16/3/2010
Author: NFR Ltd.
Office:
Drawing:
Scale: 1:1500
Projection: NAD83 (meters)
0
12.5
25
50
metres

6 Conclusions and Recommendations for Future Work

The 2009 drill program was successful in expanding the NI 43-101 compliant Nucleus Property resource released in July 2009 and confirming its continuity. The drilling assisted in defining the geometry and controls of higher grade zones associated with skarn material identified in previous years and allowed the identification of a higher grade resource. The updated 3D geologic and resource modeling completed in 2010 shows a number of northwest trending gold mineralized corridors which remain open to further expansion. This zone is roughly paralleling the major shear zone near the southeast but becoming more northerly to the northwest. The modeling also shows mineralization to the north and south of the Nucleus resource which warrant follow up.

The higher grade zones which contributed to the increased resource remain open for further testing. These include a steeply dipping ore zone on the east side of the Nucleus deposit which remains open to the east, to the west and at depth and includes GRD09-150 with 8.60 m of 0.91 g/t Au. A shallow south dipping zone on the west side of Nucleus remains open to north, south, west and at depth is also part of the higher grade zone. The northwest trending corridors were defined by the 2009 drill program and intersected zones of gold mineralization within these structures located both inside and outside of the initial resource model.

Further targets have also been identified to the north and south of the Nucleus deposit from the resource modeling and drilling. The southern edge of the Nucleus zone contains higher grade material and needs to be tested for the potential to host gold mineralization similar to the northwest trending structures mentioned above. The northern portion of the Nucleus zone also requires follow up work based on 2007 RAB results.

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8 Certificates

I, EMILY MILLER, of the City of North Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

1. That I am a geologist and that I worked at the property from June to August in 2006, May to August in 2007, May to October in 2008 and May to August in 2009.

2. That I am a graduate of the University of Alberta (B.Sc. Geology, 2008).

3. That I have been engaged in mineral exploration and development on a seasonal basis for three years and on a full time basis for one year.

4. That I am an employee of Bushmaster Exploration Services Ltd. which conducts the fieldwork at the Freegold Mountain Project for Northern Freegold Resources Ltd.

SIGNED at Vancouver, B.C. this 1st day of April, 2009.

Emily Miller

I, KATIE DODD, of the City of Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

1. That I am a geologist and that I worked at the property from May to September in 2009.

2. That I am a graduate of Simon Fraser University (B.Sc. Earth Sciences, 2001).

3. That I have been engaged in mineral exploration and development on a full time basis for seven years.

4. That I am an employee of Bushmaster Exploration Services Ltd. which conducts the fieldwork at the Freegold Mountain Project for Northern Freegold Resources Ltd.

SIGNED at Vancouver, B.C. this 1st day of April, 2009.

Katie Dodd

9 Statement of Costs

Table 11: Total cost per hole on the Nucleus 16 claim

Drill hole	Metres Drilled	Cost of Hole
GRD09-139	307.85	$35,616.58
GRD09-147	315.47	$34,677.06
GRD09-150	304.8	$31,062.58
GRD09-153	405.38	$54,217.11
Total:	**1333.50 m**	**$155,573.33**

Kluane Drilling Ltd.
14 MacDonald Rd., Whitehorse, Yukon Y1A 4L2
Tel: (867) 633-4800 Fax: (867) 633-3641
kluanedrilling@nothwestel.net

CLIENT:	**BUSHMASTER EXPLORATION**
CONT #	**NFR 003**
RIG #	**N-2**
HOLE #	**139**
FROM:	**9-Jul-2009**
TO:	**14-Jul-2009**
METERS DRILLED	**307.85**
COST OF HOLE	**$35,616.58**

CASING AND DRILLING CHARGEABLES

SIZE	METERS	DEPTH FROM	TO	METERS DRILLED	RATE P/M	TOTAL
NW	**12.19**	0	10	10.00	85.00	**850.00**
NTW	**295.66**	0	300	295.66	85.00	**25,130.76**
TOTAL CASING AND DRILLING CHARGEABLES						**26,167.08**

HOURLY CHARGEABLES

DESCRIPTION	HOURS	RATE P/H	TOTAL
MOVING	13.50	100.00	**1,350.00**
REAMING	12.00	136.00	**1,632.00**
STABILIZATION	14.00	136.00	**1,904.00**
TESTING	5.00	136.00	**680.00**
PULLING RODS (DUE TO GROUND CONDITIONS)	9.00	136.00	**1,224.00**
TOTAL HOURLY CHARGEABLES			**6,790.00**

CONSUMABLES, EQUIPMENT AND OTHER SUPLIES

DESCRIPTION	QTY.	UNIT PRICE	TOTAL
CLAY SEAM	3	140.00	**420.00**
EXTREME NUMBER ONE	3	178.00	**534.00**
LINSEED SOAP	1	84.60	**84.60**
TORQ-EEZ	1	155.00	**155.00**
ROD GREASE	1	114.90	**114.90**
LUBTUB 20KG	1	103.70	**103.70**
NTW ROD 5'	1	110.01	**110.01**
ENVIROMAT ROLL	1	128.00	**128.00**
REAMING SHELL	1	386.40	**386.40**
CASING SHOE	1	276.00	**276.00**
PLUS 15%			**346.89**
TOTAL CONSUMABLES, EQUIPMENT AND OTHER SUPLIES			**2,659.50**

OTHER CHARGEABLES

DESCRIPTION	UNITS	RATE PER	TOTAL
TOTAL OTHER CHARGEABLES			**0.00**

SUMMARY OF CHARGEABLES

CASING AND DRILLING CHARGEABLES	**26,167.08**
HOURLY CHARGEABLES	**6,790.00**
CONSUMABLES, EQUIPMENT AND OTHER SUPLIES	**2,659.50**
OTHER CHARGEABLES	**0.00**
TOTAL BEFORE TAXES	**35,616.58**

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CLIENT:	**BUSHMASTER EXPLORATION**
CONT #	**NFR 003**
RIG #	**N-2**
HOLE #	**147**
FROM:	**6-Aug-2009**
TO:	**11-Aug-2009**
METERS DRILLED	**315.47**
COST OF HOLE	**$34,677.06**

CASING AND DRILLING CHARGEABLES

SIZE	METERS	DEPTH FROM	TO	METERS DRILLED	RATE P/M	TOTAL
NW	**6.10**	0	10	6.10	85.00	**518.16**
NTW	**303.28**	0	300	303.05	85.00	**25,759.08**
TOTAL CASING AND DRILLING CHARGEABLES						**27,055.78**

HOURLY CHARGEABLES

DESCRIPTION	HOURS	RATE P/H	TOTAL
MOVING	4.50	100.00	**450.00**
REAMING	10.00	136.00	**1,360.00**
STABILIZATION	16.00	136.00	**2,176.00**
WATER SUPLY	1.50	100.00	**150.00**
TESTING	2.00	136.00	**272.00**
PULLING/TRIP RODS (DUE TO GROUND CONDITIONS)	5.50	136.00	**748.00**
TOTAL HOURLY CHARGEABLES			**5,156.00**

CONSUMABLES, EQUIPMENT AND OTHER SUPLIES

DESCRIPTION	QTY.	UNIT PRICE	TOTAL
ROD GREASE (17KG)	2	114.90	**229.80**
LINSEED SOAP (23KG)	1	84.60	**84.60**
EXTREME NUMBER ONE 15KG	2	178.00	**356.00**
CLAY SEAM	3	140.00	**420.00**
TORQ-EEZ- 20L PAIL	1	155.00	**155.00**
ENVIROMAT ROLL	1	73.50	**73.50**
BTW SUB	1	242.00	**242.00**
NTW SUB	1	235.00	**235.00**
PLUS 15%			**269.39**
TOTAL CONSUMABLES, EQUIPMENT AND OTHER SUPLIES			**2,065.29**

OTHER CHARGEABLES

DESCRIPTION		UNITS	RATE PER	TOTAL
FOREMAN FROM CAMP (B.M.)	07-Aug	4 HOURS	55.00	**220.00**
HELPER TO TOWN (B.M)	07-Aug	4 HOURS	45.00	**180.00**
TOTAL OTHER CHARGEABLES				**400.00**

SUMMARY OF CHARGEABLES

CASING AND DRILLING CHARGEABLES	**27,055.78**
HOURLY CHARGEABLES	**5,156.00**
CONSUMABLES, EQUIPMENT AND OTHER SUPLIES	**2,065.29**
OTHER CHARGEABLES	**400.00**
TOTAL BEFORE TAXES	**34,677.06**

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CLIENT:	BUSHMASTER EXPLORATION
CONT #	NFR 003
RIG #	N-2
HOLE #	150
FROM:	11-Aug-2009
TO:	15-Aug-2009
METERS DRILLED	304.80
COST OF HOLE	**$31,062.58**

CASING AND DRILLING CHARGEABLES

SIZE	METERS	DEPTH FROM	TO	METERS DRILLED	RATE P/M	TOTAL
NW	**6.10**	0	10	6.10	85.00	**518.16**
NTW	**298.70**	0	300	298.70	85.00	**25,389.84**
TOTAL CASING AND DRILLING CHARGEABLES						**25,908.00**

HOURLY CHARGEABLES

DESCRIPTION	HOURS	RATE P/H	TOTAL
MOVING	2.50	100.00	**250.00**
REAMING	1.50	136.00	**204.00**
STABILIZATION	9.50	136.00	**1,292.00**
WATER SUPLY	1.00	100.00	**100.00**
TESTING	2.00	136.00	**272.00**
#REF!	10.50	136.00	**1,428.00**
TOTAL HOURLY CHARGEABLES			**3,546.00**

CONSUMABLES, EQUIPMENT AND OTHER SUPLIES

DESCRIPTION	QTY.	UNIT PRICE	TOTAL
NTW REAMING SHELLS	1	386.40	**386.40**
EXTREME NUMBER ONE 15KG	1	178.00	**178.00**
ENVIROMAT ROLL	1	73.50	**73.50**
NTW 10' OUTER TUBES CP	1	223.26	**223.26**
TORQ-EEZ- 20L PAIL	1	155.00	**155.00**
PLUS 15%			**152.42**
TOTAL CONSUMABLES, EQUIPMENT AND OTHER SUPLIES			**1,168.58**

OTHER CHARGEABLES

DESCRIPTION		UNITS	RATE PER	TOTAL
DRILLER TO CAMP (J. QUAAL)	14-Aug	4 HOURS	55.00	**220.00**
DRILLER FROM CAMP (D. ANDERSON)	13-Aug	4 HOURS	55.00	**220.00**
TOTAL OTHER CHARGEABLES				**440.00**

SUMMARY OF CHARGEABLES

CASING AND DRILLING CHARGEABLES	**25,908.00**
HOURLY CHARGEABLES	**3,546.00**
CONSUMABLES, EQUIPMENT AND OTHER SUPLIES	**1,168.58**
OTHER CHARGEABLES	**440.00**
TOTAL BEFORE TAXES	**31,062.58**

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CLIENT:	**BUSHMASTER EXPLORATION**
CONT #	**NFR 003**
RIG #	**N-2**
HOLE #	**153**
FROM:	**19-Aug-2009**
TO:	**28-Aug-2009**
METERS DRILLED	**405.38**
COST OF HOLE	**$54,217.11**

CASING AND DRILLING CHARGEABLES

SIZE	METERS	DEPTH FROM	TO	METERS DRILLED	RATE P/M	TOTAL
NW	**22.86**	0	10	19.14	85.00	**1,627.24**
		10	30	3.72	85.00	**315.86**
NTW	**271.58**	0	300	271.58	85.00	**23,084.03**
		0	300	19.28	85.00	**1,638.73**
BTW	**110.95**	300	500	91.67	123.00	**11,275.16**
TOTAL CASING AND DRILLING CHARGEABLES						**37,941.02**

HOURLY CHARGEABLES

DESCRIPTION	HOURS	RATE P/H	TOTAL
MOVING	4.00	100.00	**400.00**
REAMING	11.00	136.00	**1,496.00**
STABILIZATION	34.00	136.00	**4,624.00**
WATER SUPLY	1.00	100.00	**100.00**
TESTING	4.00	136.00	**544.00**
PULLING/TRIP RODS (DUE TO GROUND CONDITIONS)	36.00	136.00	**4,896.00**
TOTAL HOURLY CHARGEABLES			**12,060.00**

CONSUMABLES, EQUIPMENT AND OTHER SUPLIES

DESCRIPTION	QTY.	UNIT PRICE	TOTAL
LINSEED SOAP (23KG)	1	84.60	**84.60**
EXTREME NUMBER ONE 15KG	3	178.00	**534.00**
ROD GREASE (17KG)	3	114.90	**344.70**
NTW 10' OUTER TUBES CP	1	223.26	**223.26**
TORQ-EEZ- 20L PAIL	2	155.00	**310.00**
CLAY SEAM	2	140.00	**280.00**
BTW SUB	1	242.00	**242.00**
NW CASING SHOE	2	276.00	**552.00**
ENVIRO COTE	1	73.50	**73.50**
NTW ROD SHOE	1	285.00	**285.00**
NW 5' CASING	9	81.90	**737.10**
PLUS 15%			**549.92**
TOTAL CONSUMABLES, EQUIPMENT AND OTHER SUPLIES			**4,216.08**

OTHER CHARGEABLES

DESCRIPTION	UNITS	RATE PER	TOTAL
TOTAL OTHER CHARGEABLES			**0.00**

SUMMARY OF CHARGEABLES

CASING AND DRILLING CHARGEABLES	**37,941.02**
HOURLY CHARGEABLES	**12,060.00**
CONSUMABLES, EQUIPMENT AND OTHER SUPLIES	**4,216.08**
OTHER CHARGEABLES	**0.00**
TOTAL BEFORE TAXES	**54,217.11**

Appendix 1: Drill Logs

Legend for Drill Logs

Colour coldes

BL	black
BL	blue
BR	brown
BU	beige/buff
GN	green
GY	grey
OC	ochre
OR	orange
PG	pink-green
PI	pink
PU	purple
RE	red
WH	white
YE	yellow

Coulour Modifier

L	light
D	dark

Oxidation codes

0	Absent
1	Only at fractures
2	<5cm from fracture
3	>5cm from fracture
4	Complete oxidation

Texture codes

A	angular clasts
BA	banded
BL	bleached
BX	brecciated
C	clast supported
EG	equigranular
FA	faulted
FB	flow banded
FO	foliated
FP	fine grained porpyritic
FX	fractured
GO	gougy
HF	hornfelsic
M	mixt angular and sub-rounded clasts
M	generic monomyct
MA	massive
MO	mottled
P	generic polimyct
PO	porphyritic
R	rounded clasts
S	sub-rounded clasts
SE	seriate
VU	vuggy
X	matrix supported
Z	mixed or altered

Grain size codes

VF	very fine-grained (no xx visible)
FG	fine-grained (<1mm)
MG	medium-grained (1-2mm)
CG	coarse-grained (2-5 mm)
VC	very coarse-grained (>5mm)

Structure codes

APF	Axial plane of fold
AXF	Fold axis
BRX	Brecciation
CAP	Protocataclasite 10-50% matrix
CAT	Cataclasite 50-90% matriz
CAU	Ultracataclasite >90% matriz
CCL	Crenulation cleavage
CLV	Cleavage
CRN	Crenulation
CTC	Contact
DYK	Dyke
FAU	Fault
FOF	Folded foliation (fold limbs)
FOL	Foliation
FOM	Mylonite 50-90% matrix
FOP	Protomytlonite 10-50% matrix
FOU	Ultramylonite >90% matrix
FRC	Fracture
FRC	Fracture
GOU	gouge
JOI	Joint
LAY	Layering
LIN	Mineral Lineation
LIN	Left-reverse
LIT	lineation
LNO	Left-Normal
LSS	Left-strike slip
MFO	Foliation magmatic
RIN	Right-reverse
RNO	Right-Normal
RSS	Right-Strike slip
SHR	Shear
SLI	Slickenlines
XEN	Xenolith

Infill codes

BA	banded
BI	edge blurring
BO	boudines/boudinages
BR	braided
CE	cement
CL	clip
DS	discontinuous
EE	en-echelon
FF	fault filling veins/veinlets
MA	massive
MV	microveinlets
NS	non systematic
PL	planar
SI	sigmoidal
SP	sub-parallel
ST	stockwork
TR	triangular
VU	vuggy

Occurance codes

BAN	banded
BLC	Bleached
BLE	blebby
DIS	disseminated
EUH	euhedral
FFL	fracture-filled
FGR	fine grained
LAM	laminated
MAS	massive
NET	network
OVP	Overprint
PAT	patchy
PER	pervasive
PHE	phenocrysts
PSM	pseudomorphic
SEL	the selvage is thicker than the tickness of the vein
SHE	subhedral
VSE	at the vein/veinlet selvages
VUG	vuggy

Intensity

i	complete
m	moderate
s	strong
w	weak
tr	trace

Mineral codes

act	actinolite
alb	albite
alu	alunite
amp	amphibole
and	andalusite
anh	anhydrite
ank	ankerite
anr	anorthite
apa	apatite
arg	argentite
asp	arsenopyrite
azu	azurite
bar	barite
bbo	bornite boxwork
bcp	chalcopyrite boxwork
bio	biotite
bor	bornite
bpy	pyrite boxwork
cal	calcite
chc	chalcocite
chl	chlorite
cla	clay
cov	covellite
cpx	clinopyroxene
cpy	chalcopyrite
crb	carbonate
crd	cordierite
cuw	copper wad
dio	diopside
dol	dolomite
epi	epidote
fds	feldspar
feo	Iron oxide
flu	fluorite
fmo	ferrimolybdite
fus	fuschite
gli	glassy limonite
goe	goethite
grp	graphite
grt	garnet
gyp	gypsum
hbl	hornblende
hem	hematite
ill	illite
ilm	ilmenite
jar	jarosite
kao	kaolinite
kfs	k-feldspar
lim	limonite
maf	mafics
mal	malachite
mar	marcarsite
mcr	microcline
mno	manganese oxide

Mineral codes

mol	molybdenite
mox	molybdenite-ox
mte	magnetite
mus	muscovite
nag	silver
nau	gold
ncu	copper
nte	tellurium
pla	plagioclase
prl	pyrophyllite
prt	pyrrhotite
prx	pyroxene
pyr	pyrite
pyx	pyrite-ox
qtz	quartz
rea	realgar
rod	rhodocrosite
rut	rutile
ser	sericite
shl	scheelite
sid	siderite
sme	smectite
sox	oxidized sulph
spe	specularite
sph	sphalerite
spl	spinel
stb	stibnite
sul	sulphides
sux	sulphides-ox
ten	tenorite
tlc	talc
top	topaz
trm	tremolite
ttn	titanite
ttr	tetrahedrite
tur	tourmaline
unk	unknown
zoi	zoisite

Lithology codes

AGR	Alkali feldspar granite
AMP	Amphibolite
AND	Andesite
APL	Aplite
AQS	Alkalifeldspar quartz syenite
ASY	Alkali Feldspar Syenite
BAS	Basalt
BRX	Generic breccia
DAC	Dacite
DIO	Diorite
DYK	dyke
FAU	Fault
FBX	Fault breccia
FIN	generic **Felsic Intrusive**
GBR	Gabbro
GNE	Gneiss
GRA	Granite
GRD	Granodiorite
GRF	Granofels
GRN	granitoid
HBX	Hydrothermal (Phreatic) breccia
IBX	Intrusive breccia
INI	generic **Intermediate Intrusive**
M_GRA	Meta-Granite
MAI	generic **Mafic Intrusive**
MDI	Monzodiorite/Monzogabbro
MGR	Microgranite
MON	Monzonite
MSK	Mineralized Skarn
NRC	No Recovery
PPF	Feldspar Porphyry
QDI	Quartz diorite
QFP	Quartz Feldspar Porphyry
QGR	Quartz rich granitoids (generic term)
QMO	Quartz monzonite
QSY	Quartz syenite
QUA	Quartzite
REW	Reworked Overburden
RHY	Rhyolite
SBX	Sulphide Breccia
SZN	Sulphide Zone
SCH	Schist
SLT	Slate
SYE	Syenite
TON	Tonalite
UNK	Unknown
VEI	vein

Drill Hole Summary

Property:	Nucleus		
Zone:	Nucleus		
Drill Hole ID:	GRD09-139		
UTM Easting:	379200	**Elevation (m):**	955
UTM Northing:	6913763	**Azimuth:**	1
(NAD 83, Zone 8)		**Dip:**	-50
Depth (m):	295.66		
Drill Contractor:	Kluane Drilling Ltd.	**Logged by:**	J. van Randen
Date Started:	9-Jul-09	**Date Started:**	13-Jul-09
Date Completed:	14-Jul-09	**Date Completed:**	16-Jul-09
Core Size:	NTW		

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		13-Jul-09	0	69	3	0	2.8	REW	REW										Overburden, ground fragments of QFP unit							
Nucleus	GRD09-139	J. van Randen		13-Jul-09	69	94.4	2	2.8	6.3	QFP	QFP	fds	qtz	20	45	VF	PO	BL			pale buff coloured qtz phyric oxidized porphryritic dyke at top of hole with intense limonite>>goethite coated fractures; local silicification around limonitic factures and 1cm wide silicified alteration envelopes; lower contact is broken and locally ground core.	qtz	SEL	w	cla	PSM	m	moderate clay after fds and local rusty fractures with 1cm wide grey silicification alteration envelopes
Nucleus	GRD09-139	J. van Randen		13-Jul-09	94.4	124	1	6.3	8.6	SCH	SCH	qtz	bio			MG	FO	BA			dark grey well foliated schist with common 1cm sized qtz sweats giving core a stripped appearance; foliation consistent at 50 degrees to core axis. 20cm wide clay altered MGR interval included with upper contacts crosscutting the dominant foliaiton(30 degrees to core axis).	lim	PAT	m	cla	PSM	W	
Nucleus	GRD09-139	J. van Randen		13-Jul-09	124.01	145	3	8.6	9.4	MGR	MGR	qtz	fds			MG	BL				pale orange buff coloured intensely oxidized microgranite where fds are clay altered and locally pitted away; contacts are broken.	cla	PSM	s	lim	FFL	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09	145	203.5	2	9.4	11.3	SCH	SCH	qtz	bio			MG	FO	BA			dark grey foliated schist with two small <4cm wide MGR intrusives (MGR pinch and swell and not parallel foliation).	lim	FFL	m	cal	OVP	w	
Nucleus	GRD09-139	J. van Randen		13-Jul-09	203.5	225.5	1	11.3	13.3	MGR	MGR	cla	qtz			MG	PO				intensely clay altered and oxidized microgranite; locally crumbly and patches of hematite; patches of very coarse grained material but overall is microgranite.	cla	per	s	lim	FFL	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09	225.5	295.66	0	13.3	15	SCH	SCH	qtz	bio			MG	FO				dark grey schist with common deformed qtz lenses and local faulting along the axial planes; interval contains 30cm of caved ground redrilled material between 13.7-14m which has been ground and consists of both SCH and MGR fragments plus clay-caved material not sampled.	lim	FFL	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				15	16.1	MGR	MGR	qtz	fds			MG	FO				weakly foliatied clay altered microgranite	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				16.1	16.9	SCH	SCH	qtz	bio			FG	FO	BA			dark grey well foliated schist with less qtz bands than unit above, however the qtz sweats are commonly folded.							
Nucleus	GRD09-139	J. van Randen		13-Jul-09				16.9	17.9	MGR	MGR	lim	qtz			MG	MA				intensley oxidized massive clay altered microgranite; contacts are sharp and parallel foliation of host schist unit.	lim	PER	s	cla	PSM	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				17.9	25.5	SCH	SCH	qtz	bio			MG	FO				foliated schist with 12 <3cm wide foliform MGR intervals; core is locally broken with lim and lesser gothite coating fracture surfaces; minor caved material at 20.1m; local deformed layers (small scale brittle faulting with infill by thin <2mm white calcite stringers).	cla	PAT	w	cal	FFL	w	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				25.5	28.4	SCH	SCH	qtz	bio			MG	FO	FA			SCH with 40% MGR as <8 cm bands parallel the qtz/bio rich layers; MGR is locally deformed along with the host SCH unit; interval has common discontinuous lim stringers up to 3mm wide forming a net texture crosscutting the foliation of the SCH.	cla	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				28.4	29.1	MGR	MGR	qtz	cla			MG	MA	FO			very weakly foliated MGR interval which is intensely oxidized; 3cm zones of brecciation with limonite matrix and angular MGR fragments.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				29.1	32.1	FBX	FBX	qtz	bio			FG	BX	FA	SCH	MGR	brittle fault breccia in dominantly SCH with 20% MGR subangular clasts in 5% limonitic matrix; deformed schist clasts and convoluted contacts between the schist and MGR units.	cla	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				32.1	34.4	SCH	SCH	qtz	bio			FG	FO	BX			mixed interval of dominatly dark grey foliated qtz/biotite schist with 10% clay altered MGR; local 10cm zones of brittle deformation and 1-2cm offsets; common white qtz lenses and patches.	qtz	FFL	m	cla	PSM	m	local patchy silicification and white qtz stringers and lenses; clay after fds in MGR intervals.
Nucleus	GRD09-139	J. van Randen		13-Jul-09				34.4	35.5	MGR	MGR	qtz	bio			MG	FO				dominantly MGR with lesser 30% dark grey SCH; MGR is buff coloured and fds have gone to clay.	qtz	PER	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				35.5	37.9	SCH	SCH	qtz	bio			FG	FO				dark grey finely foliated/laminated with patchy pervasive silicification - increasing downhole; common large 5 by 2cm wide open space cavities and minor brecciation.	qtz	PAT	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				37.9	39.4	MGR	MGR	qtz	fds			FG	BX				dominantly MGR with diffuse contacts and 20% dark grey biotite SCH; weak foliation present and moderately silicified	qtz	PAT	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				39.4	43.7	SCH	SCH	qtz	bio			FG	FA	FO			fractured locally brecciated silicified biotite schist with common areas of brecciation and cut by numerous late qtz/lim/pyrite stringers	qtz	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				43.7	47.7	SCH	SCH	mus	qtz			MG	FO	FA			distinct change to pale yellow coloured muscovite SCH and oxidized rusty fractures; interval contains 30% ??MGR fragments and lenses with deformed contacts.	cla	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				47.7	48.4	MGR	MGR	qtz	cla			MG	MA				massive light yellow clay altered MGR intruding muscovite SCH with sharp upper contact 30 degrees to core axis.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				48.4	50.4	SCH	SCH	mus	cla			MG	FA	FO			clay rich muscovite schist interval which is locally crumbly with rare limonitic augens (??limonite after garnet) along foliation planes.	cla	PER	s				

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		13-Jul-09				50.4	59	SCH	SCH	mus	qtz			MG	FO	BA			pale yellow banded muscovite SCH unit with minor brecciation and banded look due to <1cm wide common qtz bands parallel foliation of 60; local minor amounts of <5cm wide MGR dykes; <10% clay rich crumbly areas.	cla	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				59	60	MGR	MGR	qtz	cla			MG	MA	FO			Intensely oxidized pale orange coloured (locally very weakly foliated) MGR with non sharp contacts with muscovite SCH.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				60	71	SCH	SCH	mus	qtz			MG	BA	FO			well banded pale orange muscovite SCH with 30% dark grey clay rich biotite garnet SCH interbeds; minor deformation of foliation observed and very local boudinaged qtz sweats but generally very consistent foliation of 78-85 degrees to core axis	cla	PSM	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				71	76	SCH	SCH	bio	grt			MG	FO	BA			dark grey foliated mostly biotite garnet SCH with 20% bands of muscovite/chl?/sericite schist and interval is very clay rich and crumbly; this zone is start of euhedral pyrite stringers with limonite.	cla	PAT	m	pyr	EUH	w	clay pyrite and chlorite?/sericite alteration begins here in this interval and increases in concentration downhole.
Nucleus	GRD09-139	J. van Randen		13-Jul-09				76	82.7	SCH	SCH	mus	qtz			MG	BA	FO			orange and burgandy banded muscovite SCH with hematite staining (hematite between 76-80.3m) and abundant lim>>pyrite plus open space stringers cutting core.	hem	SEL	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				82.7	83.7	MGR	MGR	qtz	fds			MG	MA				massive light yellow clay altered MGR with rusty fractures and common open space; interval cut by pyr stringers and discontinuous lim veinlets; intrusive deformed contacts.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				83.7	87.4	SCH	SCH	mus	qtz			MG	FO				foliated SCH with common pyr stringers (increasing in concentration downhole); abundant limonite and clay throughout interval.	cla	per	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				87.4	90.8	SCH	SCH	bio	grt			MG	FO	FA			banded well foliated grey/brown biotite and garnet SCH and lesser light orange muscovite/sericite SCH	ser	PSM	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				90.8	92.3	MGR	MGR	qtz	fds			FG	MA				pale yellow MGR (with very weak foliation in local areas within interval); diss pyrite and 3mm pyr/aspy stringers with limonitic selvages	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				92.3	93	SCH	SCH	bio	qtz			MG	FO				green grey coloured foliated biotite - sericite SCH; unit has highly deformed qtz lenses and deformed contacts with MGR on either side of interval.	ser	PSM	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				93	93.4	MGR	MGR	qtz	fds		2	FG	PO				fine grained weakly porphyrtic microgranite interval with deformed lower contact (yet clearly crosscutting foliation of SCH); dendritic discontinuous pyrite stringers along lower contact.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				93.4	96.3	SCH	SCH	bio	grt			MG	FO	BA			dark grey green banded deformed biotite SCH interval with common boudinaged qtz sweats and augens; local 5mm wide garnet augens and bands of chlorite>>sericite after biotite; core is strongly foliated 85 degrees to core axis; 12cm wide pale MGR dyke at 95.4m	chl	PSM	m	ser	PSM	w	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				96.3	97.3	SCH	SCH	cla	grt			FG	BA	FO			pale yellow green garnet rich schist interval; well banded and qtz rich with majority of biotite bands gone to pale yellow/buff coloured amorphous ??clay.	cla	PSM	s				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				97.3	98.7	SCH	SCH	qtz	bio			FG	BA	FO			intensley silicified biotite SCH with rare remnant biotite yet still foliated; 5% euhedral diss pyrite and coating fracture surfaces; qtz flooding obliterates primary textures.	qtz	PER	s	pyr	BLE	m	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				98.7	99.5	SBX	SBX	pyr	qtz			MG	VU	BX			sulphide breccia composed of dominantly (50%) euhedral pyrite and qtz with common open space cavities; pyrite is blebby and semimassive patches with trace cpy observed in f.g. pyrite mass with grey qtz and 1mm fds phenos in grey qtz matrix.	qtz	PER	i	pyr	PAT	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				99.5	101.9	MGR	MGR	qtz	cla			FG	FX	BA			sulphide rich interval of mostly buff coloured fine grained MGR (and 40% fractured silicified clay altered SCH fragments); network of discontinuous pyrite stringers and irregular patches; 10% clear to white fractured qtz vein material.	qtz	PER	i				
Nucleus	GRD09-139	J. van Randen	S. Dyck	13-Jul-09				101.9	102.5	BRX	VEI	qtz	qtz			FG	FX				mixed zone of dominately white and clear qtz vein material and weakly foliated ??MGR/?SCH fragments; irregular ragged patches and elongated blebs of clay altered buff ??SCH fragments. Checked photos Oct, 2009 by SD, changed from VEI to BRX.	qtz	PER	i				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				102.5	103.9	GRA	GRA	qtz	bio			CG	MA				mixed interval of variably altered granite>buff silicified very weakly porphrytic (also weakly foliated) MGR>>rare <4cm wide SCH bands; biotite granite portions show shearing plastic flow textures around the qtz grains.	qtz	PAT	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				103.9	106.6	SCH	SCH	bio	qtz			MG	FO	BA			dark grey/brown and buff banded foliatied SCH interval with 3 <4cm MGR (weakly porphyritic) dykes and 1 1cm wide GRA dyke cutting foliation; SCH locally displays plastic flow textures of phylosilicates around 1-2cm sized granitic augens.	qtz	PAT	w	bio	EUH	w	

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		13-Jul-09				106.6	108	MGR	MGR	qtz	fds			FG	PO				pale buff coloured porphyritic microgranite with up to 3mm fds phenos in a granular qtz rich matrix (without phenos, interval looks like the type section for MGR); buff colouration due to ??clay replacing fds in matrix; discontinous pyrite stringers throughout (locally sub// to core axis); interval grades into bleached clay altered granular ??SCH bands towards end of interval (bands 45 degrees to core axis).	qtz	PER	m	cla	PSM	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				108	110.9	AMP	AMP	chl	amp			MG	MA				massive dark green chlorite altered amphibolite unit; upper contact sharp 65 degrees to core axis.	chl	PSM	s				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				110.9	112.9	SCH	SCH	bio	qtz			MG	BA	FO			well banded light green/yellow banded mostly biotite SCH with 3 8cm wide MGR (silicified weakly porphyritic) MGR; overall unit is well foliated with "speckled" ??mylonitic textured bands; interval cut by local thin 2mm wide clear qtz + pyr, cpy, bournite, aspy stringers.	qtz	PAT	w	cla	PSM	m	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				112.9	117.7	SCH	SCH	bio	qtz			CG	BA	FO			dark brown c.g. well foliated biotite SCH banded unit with 30% interfingering of granular MGR and lesser granite; minor qtz/fds graphic textured 3cm wide lenses; unit displays plastic flow textures of phylosilicates around qtz rich granitic augens; light red brown secondary biotite occurs throughout interval (concentrated near lower contact with porphyritic dyke below); interval cut by local thin sheeted 2mm wide clear qtz + pyr, cpy, bournite, aspy stringers.	chl	PSM	m	bio	EUH	m	
Nucleus	GRD09-139	J. van Randen	S. Dyck	13-Jul-09				117.7	126.2	MGR	DYK	qtz	fds		3	FG	PO				light buff coloured porphyritic dike with sharp intrusive contacts and ~3% 2-3mm fds phenocrysts (no qtz eyes observed) floating in a granular aplitic leucocratic matrix; (without the phenos, texture is classic MGR but unusually large mineralized section of porphyritic "MGR" and if matrix was aphanitic, no question this is a porphyry dyke similar to QFP and PPF == discussion with FC & RWH regarding naming and correlating this unit - jury still out!). Checked photos Oct, 2009 by SD and changed to MGR from DYK.	pyr	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				126.2	127.9	SCH	SCH	bio	qtz			CG	BA				sheared biotite rich ??mylonitic cooked raft of SCH (and 40% altered gra??) with clay after ??fds grains; discontinuous qtz lenses and boudins; FC found shear plane which gives reverse local faulting motion and zone where phylosilicates were highly deformed - less deformed in clay altered ??GRA portion of interval .	cla	PER	m				
Nucleus	GRD09-139	J. van Randen	S. Dyck	13-Jul-09				127.9	133.1	MGR	DYK	qtz	fds		3	FG	PO				moderately oxidized buff coloured porphyritic dike continued with ~3% 2-3mm fds phenocrysts floating in a granular aplitic leucocratic matrix; (without the phenos, texture is classic MGR but unusually large mineralized section of porphyritic "MGR" and if matrix was aphanitic, no question this is a porphyry dyke similar to QFP and PPF == discussion with FC & RWH regarding naming and correlating this unit - jury still out!). Checked photos Oct, 2009 by SD and changed to MGR from DYK.	pyr	PSM	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				133.1	134.8	SCH	SCH	qtz	chl			MG	FO				limonitic clay altered interval of dominantly oxidized well foliated (60) chlorite after biotite (augen) SCH with 40% MGR (too altered to see if porphyritic or not); fractured broken white bull qtz fragments along foliation locally	cla	PER	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				134.8	136.8	SCH	SCH	bio	qtz			MG	FO	BA			well foliated chl/bio garnet schist with minor brecciation and qtz boudins; moderate to strong oxidation.	chl	PSM	m				
Nucleus	GRD09-139	J. van Randen	S. Dyck	13-Jul-09				136.8	144.6	MGR	DYK	qtz	fds		3	FG	PO				light yellow coloured clay altered porphyritic dike continued with ~4% 2-3mm fds phenocrysts floating in a granular aplitic leucocratic matrix; clay alteration is concentrated at beginning of interval and intense at lower broken 1m contact zone with silicifed dark grey ??SCH below; unit has 3mm clay rounded grains with 1mm grey qtz halos as well as sub angular fds phenos floating in crystalline f.g. matrix; common sulphide stringers and diss blebs continue in this interval. Checked photos Oct, 2009 by SD and changed to MGR from DYK.	cla	PAT	m				

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		13-Jul-09				144.6	153.1	SCH	SCH	bio	qtz			MG	FO				dark green grey very silicified chlorite biotite garnet schist interval; local areas show highly strained (plastic flow of phylosilicates - ?mylonitic texture); very distinct looking "a-typical" SCH (that could have been a fine grained amphiboite, (no amp or hornblende shaped crystals observed) and now altered to chlorite and foliated??);.	qtz	PER	i	chl	PSM	s	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				153.1	153.5	SCH	SCH	qtz	bio			MG					clay altered biotite SCH with discontinuous stringers and irregular patches of fine grained pyrite; interval is deformed and folitation not well preserved.	cla	PAT	w				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				153.5	154.3	MGR	MGR	qtz	fds		0.5	FG	PO	FX			fractured silicified weakly porphyritic MGR/DYK with common discontinuous pyrite stringers; groundmass is fine-medium grained and granular like typical MGR; unit has rusty fracture surfaces with limonitic selvages to thin pyrite stringers.	qtz	PER	m				
Nucleus	GRD09-139	J. van Randen		13-Jul-09				154.3	155.6	SCH	SCH	bio	cla			MG	BA	FA			mixed interval of dominantly banded clay altered buff coloured biotite SCH and lesser granitic looking bands (15% MGR); core is highly broken at start of interval.	cla	PAT	m	bio	EUH	w	
Nucleus	GRD09-139	J. van Randen		13-Jul-09				155.6	157.4	FAU	FAU	cla	fds			MG	FA	GO			intense major fault composed of 70% clay with crumbly pyrite rich yellow ??dyke material and lesser 20% biotite rich ??mylonitic speckled (1mm fds ?phenos-porphyroblasts in a plastic aphanitic matrix) fragments that were originally SCH??.	cla	PER	i				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				157.4	158.2	SCH	SCH	bio	qtz			CG	FA				more competent silicified raft of sheared foliatied SCH with mylonitic textures of phylosilicates that have flowed and wraped around the qtz +/- pyrite augens; common secondary biotite and diss py blebs.	cla	PSM	m	qtz	PER	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				158.2	161	FAU	FAU	cla	pyr			MG	FA	GO			intense major fault composed of yellow broken clay rich fragments of crumbly pyritic ??dyke material and much lesser sheared foliatied pyritic SCH secions.	cla	PER	i				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				161	164.3	SBX	SBX	cla	pyr			MG	BX				sulphide breccia composed of thin discontinous pyr>>aspy fracture fill and increasing to patches/ diss blebs and 5mm stringers of PY/asp up to 25 % of rock; rock fragments are very thinly laminated clay rich ??MGR at beginning of interval and grades into non foliated massive intrusive material ??MGR/dyke material.	pyr	OVP	s	cla	PER	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				164.3	166.5	SBX	SBX	pyr	qtz			MG	BX				more intense sulphide breccia interval than above plus addition of qtz flooding, most intense sx area is frothy with common open space and euhedral asp>pyr and rare cpy locally up to 70% observed; broken interval and difficult to tell protolith	sul	MAS	s	cla	PAT	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				166.5	169.8	SBX	SBX	pyr	qtz			MG	BX				sulphide breccia zone continued but distinctly less mineralized than zone above and host rock is true fault breccia with limonitic matrix around subrounded clasts of intrusive material and lesser grey foliated SCH 1-2cm wide fragments; sulphides up to 20% locally with stringers and dissemination mostly of pyr and lesser asp diminishing gradually downhole; late cockade qtz + pyr stringers with 20% open space cut breccia and have 1-2cm wide silicified alteration envelopes.	sul	FFL	m	qtz	SEL	w	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				169.8	173.8	SCH	SCH	cla	bio			FG	BX	FA			mixed interval of foliated biotite (rare garnet) SCH and 40% fault breccia that is healed - breccia clasts are SCH>fractured qtz>MGR; interval is cut by dark grey aphanitic matrix with 1mm fds phenos <2cm wide ??PPF dyke at 175.5m	cla	PAT	m	sul	FFL		
Nucleus	GRD09-139	J. van Randen		15-Jul-09				173.8	175	MGR	MGR	qtz	cla		1	MG	MA	PO			oxidized pyrite rich interval of orange/yellow ??MGR which locally is fine grained porphyritic but overprinting of discontinuous pyr stringers and disseminations make protolith identification difficult.	cla	PSM	s	cla	PAT	m	
Nucleus	GRD09-139	J. van Randen	S. Dyck	15-Jul-09				175	176.4	MGR	PPF	qtz	fds	0	5	VF	PO	BX	PPF		oxidized crackle breccia of orange fine grained matrix (MGR) to dull grey cryptocrystalline (PPF) with variable amounts of 1-2mm fds phenocrysts; yellow limonitic qtz rich minor matrix around angular "jigsaw" breccia fragments all composed of dyke material; clast supported monomyct breccia with irregular contacts; unit represents a transition dyke unit between PPF and weakly porphyritic MGR????. Checked photos Oct, 2009 by SD. Changed from PPF to MGR.	qtz	per	s	cla	PSM	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				176.4	180.8	MGR	MGR	qtz	fds			CG	MA				limonitic clay altered coarse grained leucocratic dominantly MGR with 30% bleached clay altered GRA slugs.....contacts non sharp	cla	PSM	s	crb	FGR	w	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				180.8	182.8	SCH	SCH	chl	bio			FG	FO				dirty brown green coloured fine grained sandy textured finely laminated chlorite/biotite and dickite after qtz?fds unit; interval is very homogenous and lacks typical qtz bands seen in most SCH.	cla	PSM	s				

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		15-Jul-09				182.8	184.3	MGR	MGR	qtz	cla			MG	FO	BA			mixed interval of weakly foliated fine grained MGR (clay altered) and lesser (30%) banded biotite SCH; oxidized interval overprinted by network of thin 2mm pyrite stringers at various angles to core axis.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				184.3	191.4	GRA	GRA	qtz	fds			CG	MA	BL			bleached massive clay altered leucocratic granite interval with clay after fds; 15cm wide qtz/sul calcedony venin at 186m	cla	PSM	s				
Nucleus	GRD09-139	J. van Randen	W. Barnes	15-Jul-09				191.4	206.6	FIN	PPF	qtz	pyr	0	30	FG	PO	MO			distictive very fine grained dyke rock with disseminated f.g. pyrite after 2mm phenos in a fine grained (not aphanitic) matrix.....??PPF with pyr after fds or different magma source compared to typical PPF/QFP dykes found elsewhere on property?? (very rare local areas of dyke looks like PPF.....discussions of what to call it with FC and RWH). Jan/10 further review by wbarnes and unit is similar to the fine grained porphyritic unit called FIN (generic felsic intrusive).	pyr	DIS	i				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				206.6	210.2	SCH	SCH	bio	qtz			MG	FO	BL			dark grey siliceous augen foliated SCH; locally deformed and rare brecciation; 10cm bands of pale green ?sericite with rounded 4mm porphyroblasts near contact with dyke above; lower 1m of core is bleached and clay altered.	qtz	PER	m				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				210.2	216.4	GRA	GRA	qtz	fds			CG	MA	BL			clay pseudomorphing after fds coarse grained leucocratic granite; 30% bleached finely laminated altered SCH at lower contact.	cla	PSM	s				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				216.4	221.5	BRX	BRX	qtz	lim			FG	BX	FO	SCH		black brecciated silicified SCH; 85% angular SCH fragments in a rusty limonitic matrix; common 2x.5cm wide open space cavities in breccia; minor grey cryptocrystalline silica in breccia and interval is weakly mineralized.	qtz	PER	i				
Nucleus	GRD09-139	J. van Randen	S. Dyck	15-Jul-09				221.5	224.7	SCH	MGR	qtz	cla			FG	BL	BX			buff tan coloured leucocratic very thinly laminated ??SCH (or possibly foliated ??MGR as knife sharp intrusive contacts with black siliceous SCH below??); unit is granular, silicified and strained with common discontinuous strained lenses and thin stringers of dark grey cherty looking silica stringers (clots of buff clay ??after phenos and white qtz +/- py and lesser cpy blebs in some cherty silica stringers); brittle cm scale offsets of foliated layers and silica fracture fillings; 5% discontinuous white fractured unmineralized qtz vein fragments. Checked photos Oct, 2009 by SD and changed from MGR to SCH.	qtz	PER	i	cla	PSM	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				224.7	227.2	SCH	SCH	qtz	bio			FG	FO	FA			black very thinly laminated siliceous SCH with common small scall brittle offsets; unit has overall foliation 0-10 degrees to core axis							
Nucleus	GRD09-139	J. van Randen		15-Jul-09				227.2	227.6	BRX	BRX	qtz	cla			VF	BX		SCH	GRN	40cm wide black breccia zone with angular 4mm silicified SCH fragments in a grey siliceous matrix (10% fragments appear to be of granite origin with clay replacing fds); 2% very fine grained pyrite noted but hard to observe sx in dark silicified interval; shearing orientation is 25 degrees to core axis.	qtz	PER	i	cla	PSM	m	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				227.6	236.8	GRA	GRA	qtz	fds			CG	MA	BL			massive leucocratic granite with pervasive clay puedomorphing after fds; unit is cut by discontinuous thin pyrite stringers as well as sub parallel pyrite stringer (>qtz/pyr strs) sets.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				236.8	245	SCH	SCH	qtz	cla			MG	BA	FO			banded well foliated interval of dominantly bleached clay altered SCH with 30% 8-10cm wide MGR>>GRA foliform igneous dykes which are concordant with foliation in schist and still see fds and qtz grains in MGR for the most part; at 239.9m is 2cm cream colour porphryy dyke (clay altered fds phenos in a aphanitic groundmass crosscutting foliation of SCH and MGR.....very likely this is not MGR but younger dykelet; 238.5m 20cm shear with f.g. sulphides 15 degrees to core axis; 144m qtz/cpy/bor stringer.	cla	PSM	s				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				245	246	MGR	MGR	qtz	fds		1	MG	FO	PO			interval dominanted by cream coloured foliated m.g. Microgranite (with local fds phenos near lower contact) and 10% altered SCH; the SCH-MGR contacts are non-planar and sharp; 245.7m malachite staining py+qtz stringer.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		15-Jul-09				246	247.2	SCH	SCH	qtz	ser			MG	BA	FO			very banded thinly laminated interval of dominantly bleached clay altered SCH with 10% 3-5cm wide igneous (bands) which are concordant with foliation in schist. Unit has regularily spaced <1cm white qtz bands (clear qtz veining more likely than primary qtz sweats in SCH unit; entire interval could be of igneous origin???	cla	PSM	s	ser	PSM	w	
Nucleus	GRD09-139	J. van Randen		15-Jul-09				247.2	248.2	GRA	GRA	qtz	fds			CG	MA				massive corarse grained granite interval cut by numerous thin discontinous and 5mm wide qtz/sul veins; contacts crosscut foliation of SCH; at 248m is pyritic slickensides on fault plane 15 degrees to core axis.	cla	PSM	w				

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		16-Jul-09				248.2	251.7	SCH	SCH	qtz	cla			FG	FO				buff tan yellow coloured moderately silicified well foliated sericite SCH unit with common <1cm wide qtz bands (locally boudinaged) and <4cm wide conformable <30% igneous intervals; thin pyrite stringers throughout and a 15cm white fractured qtz vein occurs at 148.6m.	ser	PSM	m	qtz	PER	m	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				251.7	252.1	GRA	GRA	qtz	fds			CG	MA				massive corarse grained granite interval cut by numerous thin discontinous qtz/sul veins.	cla	PSM	w				
Nucleus	GRD09-139	J. van Randen		16-Jul-09				252.1	255.2	SCH	SCH	qtz	cla			FG	FO				buff tan yellow coloured strong to moderately silicified well foliated sericite SCH unit with common discontinuous qtz boudins; commonconformable <40% igneous intervals as fine grained (not aphanitic) porphyritic dyke material ??por-MGR; thin sheeted pyrite stringers throughout; well mineralized overall.	ser	PSM	m	qtz	PER	s	
Nucleus	GRD09-139	J. van Randen	S. Dyck	16-Jul-09				255.2	255.6	BRX	VEI	qtz	sul			CG	VU				small sx rich clear qtz veined zones with distinct alteration halo; semi massive sulphides (coarse blebs of f.g. pyrrhotite>pyrite>>cpy) at intersections of very coarse grey and clear <1cm qtz crystal growth with 5% open space cavities. Checked photos Oct, 2009 by SD, changed from VEI to BRX.	cla	SEL	m				
Nucleus	GRD09-139	J. van Randen		16-Jul-09				255.6	258	MGR	MGR	qtz	cla			FG	FO				buff tan yellow coloured strongly silicified well foliated SCH/microgranite mixed unit with common irregular patches of diss pyrite and discontinuous thin sheeted pyrite stringers throughout; well mineralized overall.	qtz	PER	s	cla	PSM	m	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				258	259.3	GRA	GRA	qtz	fds			CG	MA				massive corarse grained granite interval cut by numerous thin discontinous qtz/py veins.	cla	PSM	w				
Nucleus	GRD09-139	J. van Randen		16-Jul-09				259.3	263.3	SCH	SCH	qtz	cla			MG	FO				mixed interval of dominantly banded clay altered buff coloured biotite SCH and lesser granitic looking bands (20% MGR); core is highly broken locally and large interval of caved material due to drilling process.	cla	PSM	m				
Nucleus	GRD09-139	J. van Randen		16-Jul-09				263.3	265.3	MGR	MGR	qtz	fds			FG	FX	MA			mixed unit of dominantly altered fine grained massive microgranite with diss pyr and lesser GRA intervals plus 10% foliated clay altered SCH; pyrite stringers throughout in <3cm braided shear zones with abundant clay.	cla	PAT	m				
Nucleus	GRD09-139	J. van Randen		16-Jul-09				265.3	268	SCH	SCH	qtz	cla			FG	FO				dominantly buff coloured foliated SCH with 40% intrusive intervals (GRA>MGR) and common fine grained discontinuous pyrite stringers; patchy silicification; malachite??mariposite?? At 265.4m.	cla	PSM	m	qtz	PAT	m	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				268	270.4	GRA	GRA	qtz	bio			CG	MA				mixed interval of dominantly GRA with 20% MGR (good crosscutting relationships of GRA intruding foliated MGR...the MGR is concordant with the foliation in the host SCH unit; area also displays two different MGR (one foliated, one massive and crosscutting foliation in SCH)); interval becomes increasingly silicified downhole.	cla	PSM	m	qtz	PAT	m	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				270.4	276.5	SCH	SCH	qtz	chl			FG	FO				competent banded dark grey silicified ?sericite SCH with 10% GRA>>fol MGR intrusive bands less than 12cm wide; interval is well mineralized with common discontinuous pyr stringers and patches centered on mineralized fractures.	qtz	PER	s	ser	PSM	w	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				276.5	278	MGR	MGR	qtz	fds			MG	FO				weakly foliatied white coloured microgranite cut by discontinuous 3mm pyrite/aspy stringers.							
Nucleus	GRD09-139	J. van Randen		16-Jul-09				278	280	SCH	SCH	qtz	chl			FG	FO				competent banded dark grey silicified SCH with 25% fol MGR + GRA intrusive bands less than 5cm wide; secondary biotite observed locally and stained augen shaped 3mm wide ??qtz grains at 270.1m and boudinaged qtz sweats at 179.9m.	qtz	PAT	m	bio	EUH	w	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				280	280.8	MGR	MGR	qtz	fds			MG	FO				weakly foliatied white coloured microgranite cut by discontinuous 3mm pyrite/aspy stringers; interval has two locations where grey SCH zenoliths are caught up in the MGR.							
Nucleus	GRD09-139	J. van Randen		16-Jul-09				280.8	283.1	SCH	SCH	qtz	chl			FG	FO				black intensely silicified SCH with 15% fol MGR + minor GRA intrusive bands less than 15cm wide; secondary biotite observed locally and patches of fine grained pyrite along foliation.	qtz	PAT	m	bio	EUH	m	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				283.1	286.6	MGR	MGR	qtz	fds			MG	FO				white deformed MGR (generally foliated sub// to SCH but foliation is locally warped and folded); unit is locally broken and contains thin pyrite>>arsenopyrite stringers and patches.							
Nucleus	GRD09-139	J. van Randen		16-Jul-09				286.6	288.8	SCH	SCH	amp	chl			MG	FO				dark green intensely silicified chlorite schist with 10% observed amphiboles; unit is very siliceous with fine grained pyrite along foliation and local very thin cpy stringers.	qtz	PER	s	chl	PSM	s	
Nucleus	GRD09-139	J. van Randen		16-Jul-09				288.8	290.6	MGR	MGR	qtz	fds			MG	FO				white foliated MGR (generally foliated sub// to SCH but foliation is locally warped and folded); unit contains thin pyrite>>arsenopyrite stringers and patches.							

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-139	J. van Randen		16-Jul-09				290.6	295.66	SCH	SCH	qtz	bio			MG	FO	BA			intensely silicified well foliated biotite SCH (biotite is at least in part secondary); unit contains 15% pale green coloured foliated MGR and lesser GRA intrusive dykes generally <10cm wide; EOH 295.66m.	qtz	PER	i	bio	EUH	m	

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-139	16.9	17.9						lim	2	diss lim after pyr
GRD09-139	74.7	75	pyr	5				lim	2	5% disseminated local pyrite and rims of limonite.
GRD09-139	90.8	92.3	pyr	10				lim	5	diss pyrite with limonitic halos
GRD09-139	106.6	108	pyr	10						
GRD09-139	117.7	126.2	pyr	5						
GRD09-139	127.9	133.1	pyr	2				lim		
GRD09-139	136.8	144.6	pyr	5						
GRD09-139	158.2	161	pyr	10						diss pyrite as well as sulphides in veins; generally pyrite is <10% diss but locally concentrated up to 25 as clots and patches
GRD09-139	164.3	166.5	pyr	15			2			~15% fine grained sulphides (?mostly pyrite) as disseminations and clots throughout interval in addition to sulphides in numerous veins
GRD09-139	166.5	169.8	pyr	5						5% locally concentrated diss pyr in dyke portions of dominantly SCH breccia unit
GRD09-139	169.8	173.8	pyr	5						
GRD09-139	173.8	175	pyr	15						patchy concentrations of f.g. diss pyr up to 15%
GRD09-139	175	176.4	pyx	3						
GRD09-139	182.8	184.3	pyr	2						local fine grained clots and disseminations of pyrite throughout interval (in qtz rich areas mostly).
GRD09-139	191.4	206.6	pyr	20						fine grained pyrite replacing all ??fds phenocryts in porphyritic dyke interval with local concentrations up to 30 % plus vein mineralization.
GRD09-139	221.5	224.7	pyr	2						fine grained disseminated pyrite as crude blebs and <2cm patches locally in unit
GRD09-139	224.7	236.8	pyr	5						dis pyr in granite plus sx veins
GRD09-139	236.8	245	pyr	1						up to 3% diss pyr within granitiod intervals and none observed in SCH bands.
GRD09-139	245	246	pyr	2						2-3% diss pyrite in GRA
GRD09-139	246	247.2	pyr	0.5						up to 3% diss pyr within granitiod intervals and none observed in SCH bands.
GRD09-139	247.2	248.2	pyr	2						5-8% diss pyrite in GRA
GRD09-139	248.2	251.7	pyr	1						up to 3% diss pyr within granitiod intervals and none observed in SCH bands.
GRD09-139	251.7	252.1	pyr	1						1-2% diss pyrite in GRA
GRD09-139	252.1	255.2	pyr	0.5						up to 1% diss pyr within granite intervals and none observed in SCH bands.
GRD09-139	255.2	255.6	pyr	1						diss pyr clots in alteration halo around qtz/sx vein
GRD09-139	255.6	258	pyr	2						up to 3% diss pyr within granitiod intervals and none observed in SCH bands.
GRD09-139	258	259.3	pyr	3						3% diss pyrite in GRA
GRD09-139	259.3	263.3	pyr	2						up to 2% diss pyr within granite intervals.
GRD09-139	263.3	265.3	pyr	5						clots and patches of f.g. pyrite in mostly intrusive interval
GRD09-139	265.3	268	pyr	2						up to 2% diss pyr within granite intervals.
GRD09-139	268	270.4	pyr	1						diss pyr in gra and MGR intervals
GRD09-139	270.4	276.5	pyr	0.5						diss pyr in gra and MGR intervals
GRD09-139	276.5	278	pyr	0.01						rare very fine grained pyrite
GRD09-139	280	280.8	pyr	0.01						rare very fine grained pyrite
GRD09-139	283.1	286.6	pyr	0.5						rare very fine grained pyrite
GRD09-139	288.5	290.6	pyr	0.5						rare very fine grained pyrite

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-139	7.5	7.51	35										
GRD09-139	10.5	10.51					CTC	SCH-MGR	60				minor MGR crosscut SCH 60 to core axis
GRD09-139	16.7	16.71	58										
GRD09-139	25	25.01	48										
GRD09-139	32.1	32.11	62										
GRD09-139	32.2	32.21					CTC	SCH-MGR	57				mgr crosscuts foliation in SCH
GRD09-139	36	36.01	60										
GRD09-139	42	42.01	60										
GRD09-139	47.7	47.71					CTC	SCH-MGR	30				sharp upper contact of MGR with SCH 30 degrees to core axis.
GRD09-139	50.8	50.81	78										
GRD09-139	56	56.01	60										
GRD09-139	63.5	63.51	83										
GRD09-139	67.8	67.81	80										
GRD09-139	71.8	71.81	85										
GRD09-139	76.5	76.51	90										
GRD09-139	78	78.01	87										
GRD09-139	82.5	82.51	85										
GRD09-139	86.5	86.51	68										
GRD09-139	90.6	90.61	80										
GRD09-139	94.4	94.41	80										
GRD09-139	110.9	110.91					CTC	SCH-AMP	50	60	127	68	sharp lower contact of amphibolite unit with schist is 127/68
GRD09-139	112.8	112.81	88	30	92	42							
GRD09-139	115.8	115.81	85	195	88	35							
GRD09-139	117.7	117.71					CTC	SCH-MGR	62				
GRD09-139	127.9	127.91					CTC	SCH-MGR	60				sharp upper contact of SCH with DYK
GRD09-139	133.1	133.11					CTC	SCH-MGR	60				sharp lower contact of DYK with SCH/MRG
GRD09-139	154.3	155.6	75										
GRD09-139	157.4	158.2	45										
GRD09-139	161	162	75										
GRD09-139	165.9	166					BRX		25				10cm wide f.g. sul bx competent rock section with sharp contacts oriented 25 degrees to core axis
GRD09-139	171.9	171.91	55										
GRD09-139	180.8	182.8	40	308	52	79							
GRD09-139	191.4	191.41	50	60	127	68							
GRD09-139	206.6	210.2	44	321	63	80							
GRD09-139	216.4	216.41					CTC	BRX-GRA	30	62	140	83	sharp lower contact of GRA with brecciated schist unit below
GRD09-139	224.69	224.7					CTC	SCH-SCH	30				
GRD09-139	224.7	227.2	5										
GRD09-139	227.2	227.6					SHR		45				brecciated silicified sulphide shear 45 degrees to core axis
GRD09-139	236.8	236.81					CTC	SCH-GRA	55				lower contact of GRA
GRD09-139	236.81	245	65				SHR		10				sulphide rich shear zone 3cm wide at 238.4m is 10 degrees to core axis.
GRD09-139	246	246.01					CTC	SCH-GRA	35				lower contact of GRA
GRD09-139	246.01	247.2	77										
GRD09-139	248	248.01					FAU		15	65	331	86	alpha=15, beta=65 gamma=40 on mineralized fault plane with pyr slickensides; Brunton check on fault gives 345/85 and slickensides are 8 degrees towards 330....steep normal fault movement according to "steps" on slick polished surface.
GRD09-139	251.7	252.1					CTC	SCH-GRA	75				sharp upper and lower contacts of GRA - conformable with SCH foliation
GRD09-139	252.1	255.2	87										
GRD09-139	255.2	255.21					CTC	SCH-BRX	59				sharp upper contact of qtz/sul vein
GRD09-139	259.3	263.3	55										
GRD09-139	265.3	268	45										
GRD09-139	269	269.1					CTC	SCH-GRA	48	260	31	50	lower contact of small GRA interval in SCH
GRD09-139	269.1	270.4	50	260	33	49							
GRD09-139	270.4	275.3	65	270	54	46							
GRD09-139	275.3	275.31					CTC	SCH-GRA	68	270	58	45	upper contact of small GRA interval in foliated SCH and very similar orientations
GRD09-139	278	280	68										
GRD09-139	280	283.1	44	210	355	21							
GRD09-139	286.6	286.61					CTC	SCH-GRA	50	205	10	16	sharp lower contact of MGR unit with silicified schist
GRD09-139	286.61	288.8	52	230	23	31							
GRD09-139	290.6	295.66	56	220	30	24							Brunton Check of foliation 030/28; 295.66m EOH

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-139	2.8	6.3	16	30	5	SP	qtz	lim			30	60														
GRD09-139	6.3	8.6	17	30	4	NS	qtz	lim			20															
GRD09-139	8.6	9.4	6	10	2	NS	lim	lim			80															
GRD09-139	9.4	11.3	17	10	1	NS	lim	lim			90															
GRD09-139	11.3	13.3	18	20	2	DS	cla	lim			70															
GRD09-139	13.3	15	19	10	1	DS	lim	lim			80															
GRD09-139	15	16.1	29	30	3	DS	lim	lim			90					PL	qtz	lim			70	25				
GRD09-139	16.1	16.9	7	20	2	NS	qtz	lim			30															
GRD09-139	16.9	17.9	4	10	2	PL	qtz	lim			20	25														
GRD09-139	17.9	25.5	53	30	3	NS	qtz	lim			20															
GRD09-139	25.5	28.4	37	20	3	DS	qtz	lim			40															
GRD09-139	28.4	29.1	8	30	5	DS	qtz	lim			40															
GRD09-139	29.1	32.1	53	30	2	DS	lim	lim			70															
GRD09-139	32.1	34.4	28	20	2	DS	lim	lim			60															
GRD09-139	34.4	35.5	19	10	1	NS	lim	lim			70															
GRD09-139	35.5	37.9	9	20	2	DS	qtz	lim			40															
GRD09-139	37.9	39.4	7	20	2	DS	lim	lim			40															
GRD09-139	39.4	43.7	22	30	3	DS	qtz	lim			30															
GRD09-139	43.7	47.7	53	30	2	DS	lim	lim			60															
GRD09-139	47.7	48.4	17	10	1	NS	qtz	lim			30															
GRD09-139	48.4	50.4	37	30	2	DS	lim	lim			70															
GRD09-139	50.4	59	112	40	2	DS	lim	lim			50															
GRD09-139	59	60	15	15	1	SP	lim	lim			80	35														
GRD09-139	60	71	60	40	3	BR	qtz	lim			45															
GRD09-139	71	76	18	20	2	NS	lim	lim			70					PL	pyr	lim			50	5				
GRD09-139	76	82.7	28	30	3	BR	qtz	pyr			40															
GRD09-139	82.7	83.7	14	10	2	DS	qtz	pyr	lim		30															
GRD09-139	83.7	87.4	27	30	2	NS	lim	pyr			60															
GRD09-139	87.4	90.8	28	30	3	SP	pyr	asp	lim		75	30														
GRD09-139	90.8	92.3	18	30	4	NS	pyr	lim			40															
GRD09-139	92.3	93	3	10	2	DS	lim	pyr			80															
GRD09-139	93	93.4	13	10	1	DS	pyr	lim			60															
GRD09-139	93.4	96.3	15	20	4	BR	lim	pyr			40	15														
GRD09-139	96.3	97.3	16	20	1	NS	qtz	pyr			50															
GRD09-139	97.3	98.7	37	60	2	SP	qtz	pyr			50	70														
GRD09-139	98.7	99.5	5	10	2	NS	qtz	pyr			70															semi massive pyrite with quartz so majority of sx reported under mineralization section of log.
GRD09-139	99.5	101.9	68	140	2	SP	qtz	pyr	pyx		80	60				DS	pyr	pyx			90					
GRD09-139	101.9	102.5	15	30	2	SP	qtz	pyr	pyx		85	60	40	111	65	SP	pyr				90	35	280	31	70	
GRD09-139	102.5	103.9	28	45	1	SP	qtz	pyr	pyx		80	55														
GRD09-139	103.9	106.6	16	20	1	BR	pyr	pyr			70															
GRD09-139	106.6	108	25	30	1	DS	pyr	pyr			90															
GRD09-139	108	110.9	15	20	1	BR	lim	pyx			80					PL	pyr				40	30	50	132	89	
GRD09-139	110.9	112.9	20	50	4	DS	pyr	pyr	cpy		90					SP	pyr	cpy			90	25	230	346	46	
GRD09-139	112.9	117.7	73	120	1	NS	pyr	pyr	cpy		70					SP	pyr	cpy	bor	asp	40	82	270	78	41	subparallel vuggy qtz stringers 2mm wide with blebs of f.g. pyr and euhedral c.g. cpy and local ?asp blebs and rare bournite observed; Brunton check resulted in 085/50
GRD09-139	117.7	126.2	350	400	1	DS	pyr	pyr			95					SP	pyr	pyr			90	70	40	105	56	porphyritic dyke has diss clots of f.g. pyr/pyx throughout as well as bottom 2metres of interval has common every 2-5cm sheeted sx stringers (rare qtz/sx stringers) all subparrallel and Brunton check gives 095/67 orientation
GRD09-139	126.2	127.9	3	15	3	BO	qtz	pyr			20															
GRD09-139	127.9	133.1	125	200	1	DS	pyr	pyr	lim	cpy	40	40														porphyritic dyke has diss clots of f.g. pyr/pyx throughout as well as bottom 2metres of interval has common every 2-5cm sheeted sx stringers (rare qtz/sx stringers) all subparrallel.
GRD09-139	133.1	134.8	21	30	1	SP	qtz	pyr	lim		50	40														
GRD09-139	134.8	136.8	23	35	1	NS	lim	pyr			10															
GRD09-139	136.8	144.6	200	200	1	DS	pyr	pyr			80					SP	pyr				70	45	50	124	76	porphyritic dyke has diss clots of f.g. pyr/pyx throughout as well as bottom 2metres of interval has common every 2-5cm sheeted sx stringers (rare qtz/sx stringers) all subparrallel.
GRD09-139	144.6	153.1	15	30	2	NS	qtz	pyr			5															

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-139	153.1	153.5	3	10	2	DS	qtz	lim	pyr		20															
GRD09-139	153.5	154.3	50	40	0.5	DS	lim	pyr			70															
GRD09-139	154.3	155.6	17	20	2	SP	qtz	pyr			40	90														
GRD09-139	155.6	157.4	3	25	10	FF	qtz	pyr			5															
GRD09-139	157.4	158.2	10	20	3	NS	qtz	pyr			10															
GRD09-139	158.2	161	3	10	2	DS	cla	pyr			30															clay rich crumbly fault zone so stringers difficult to see here.
GRD09-139	161	164.3	500	600	2	DS	pyr	asp	cpy		90															sx breccia zone with numerous 1-2mm discontinuous sx stringers plus irregular patches of sulphide mineralization; no consistent orientation of mineralization.
GRD09-139	164.3	166.5	300	800	5	NS	pyr	asp	cpy		95															
GRD09-139	166.5	169.8	400	500	2	DS	pyr	asp	cpy		85					SP	qtz	pyr	asp		50	50				
GRD09-139	169.8	173.8	25	100	3	NS	lim	pyr			80					SP	qtz	pyr	asp	cpy	20	45	100	153	52	Brunton Check 160/58
GRD09-139	173.8	175	25	30	1	NS	pyr	asp	cpy		75															discontinuous sx str and diss sx
GRD09-139	175	176.4	8	10	1	SP	sul	pyr			40															
GRD09-139	176.4	180.8	15	30	5	PL	sul	pyr	asp		50	35														
GRD09-139	180.8	182.8	8	20	2	BR	chl	pyr			10															
GRD09-139	182.8	184.3	58	100	4	DS	pyr	pyr			80					SP	qtz	pyr	asp	cpy	35	45	315	59	77	
GRD09-139	184.3	191.4	350	50	2	DS	qtz	pyr	asp	cpy	60					SP	pyr	pyr			80	45	310	56	76	
GRD09-139	191.4	193.4	20	50	2	SP	qtz	sul	pyr		80	40	25	109	89	SP	qtz	sul	pyr		80	80	135	103	34	pyr str set
GRD09-139	193.4	195.4	18	60	3	NS	qtz	sul	pyr		80	50	68	131	64	SP	qtz	sul	pyr		80	40	45	123	82	Brunton Check 120/80 on sub // sx str sets
GRD09-139	195.4	198	15	55	2	PL	qtz	sul	pyr		75	45	70	136	67	SP	qtz	pyr			90	52	30	109	75	Brunton check 105/80
GRD09-139	198	206.6	70	20	3	PL	pyr	pyr			85	25	37	303	82											subparallel vein sets of sx changes at bottom of dyke interval from 45-52 alpha angles to being 25 degrees to core angle.
GRD09-139	206.6	210.2	22	75	3	PL	qtz	pyr	cpy		40	45	312	59	74	PL	qtz	pyr	cpy		40	52				conjugate sets of qtz + pyr+cpy stringers.
GRD09-139	210.2	216.4	108	30	3	PL	qtz	pyr			60	55				PL	pyr	cpy			70	45				interval cut by sub parallel vein sx sets plus qtz +/- sx steeper angle less mineralized vein set.
GRD09-139	216.4	221.5	8	30	3	PL	pyr	asp			70	62														
GRD09-139	221.5	224.7	40	60	2	BR	qtz	pyr	asp	cpy	50	45				SP	qtz	pyr	cpy			70				well mineralized section of commonly two directions of sx qtz str sets (pyr>asp>cpy) often 45 and 70 degrees to core axis as well as local disseminated pyrite.
GRD09-139	224.7	227.2	18	35	2	FF	qtz	pyr	asp		50															black silicified brecciated SCH unit hard to see qtz sulphide veins
GRD09-139	227.2	227.6	1	80	80	VU	qtz	pyr	asp		70															true brecciated section so mineralization noted under mineralization heading rather than vein infill.
GRD09-139	227.6	236.8	91	70	3	SP	pyr				80	60	71	125	56	PL	qtz	pyr	cpy		45	10	90	174	82	two vein sets throughout interval with 70 degrees to core axis set being dominant over shallow stringers.
GRD09-139	236.8	245	86	86	1	SP	pyr	pyr			80	74				PL	qtz	pyr	cpy	bor	50	75	135	61		Brunton Check on cpy/bor sx planar stringer gave 130/75
GRD09-139	245	246	15	40	2	SP	qtz	pyr	mal		40	65				PL	qtz	pyr				28				two sets of sub parallel sx stringers but higher angle to core axis set is far more common.
GRD09-139	246	247.2	33	75	2	SP	qtz	pyr			85	25														sheeted vein set
GRD09-139	247.2	248.2	6	50	8	BR	pyr	pyr			70	15				PL	qtz	pyr	cpy		30	15	65			alpha=15, beta=65 gamma=40 on mineralized fault plane with pyr slickensides
GRD09-139	248.2	251.7	91	160	1	DS	pyr	pyr			80	40	263	24	56											subparallel vein set
GRD09-139	251.7	252.1	15	15	0.1	SP	pyr	pyr			90	75														
GRD09-139	252.1	255.2	139	36	2	SP	pyr	pyr			80	70														very consistently oriented tightly spaced sheeted pyrite +/- qtz stringers throughout interval (core not oriented)
GRD09-139	255.2	255.6	5	230	2	NS	qtz	prt	pyr	cpy	30	55														25cm wide qtz pyrrhotite pyrite cpy vein
GRD09-139	255.6	258	38	70	2	NS	pyr	pyr			80															
GRD09-139	258	259.3	25	30	1	SP	qtz	prt	pyr	cpy	30	60														
GRD09-139	259.3	263.3	68	70	1	DS	pyr	pyr			60															
GRD09-139	263.3	265.3	340	350	0.5	DS	pyr	pyr			90															diss py and in discontinuous thin veinlets throughout interval.
GRD09-139	265.3	268	300	300	0.5	DS	pyr	pyr			90															
GRD09-139	268	270.4	47	50	1	SP	pyr	pyr			80	80	105	106	38											sheeted hairline pyr stringer set
GRD09-139	270.4	276.5	98	120	1	SP	pyr	asp			70	75	45	104	52	SP	qtz	pyr	asp		70	28	270	19	69	very consistent sheeted vein set throughout interval giving Brunton check orientation of 105/48 orientation on stand; towards end of interval conjugate set of pyr stringers is present.
GRD09-139	276.5	278	21	35	2	SP	pyr	pyr	cpy	asp	80	60	40	110	65	BR	pyr	pyr	asp		90	5				sheeted sx stringers and local later low angle to core axis pyr/asp stringers.
GRD09-139	278	280	10	25	2	SP	qtz	pyr			40	38														
GRD09-139	280	280.8	19	10	0.5	DS	chl	pyr			20	42	272	31	60											
GRD09-139	280.8	283.1	39	85	1	DS	chl	pyr			50					SP	qtz	pyr	cpy		75	63	100	141	33	interval characterized by thin discontinuous pyr str and local pyr cpy sheeted thin stringer oriented 141/33

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-139	283.1	286.6	45	50	1	DS	pyr	pyr			80															
GRD09-139	286.6	288.8	9	10	0.5	SP	cpy	cpy	pyr		90	70	105	122	39											very thin cpy>>pyr stringer set in amphibolite sch unit; stringers difficult to see in black siliceous interval
GRD09-139	288.8	290.6	20	40	2	SP	qtz	asp	pyr		20	48	16	101	81	SP	asp	asp	pyr	cpy	95	53	260	36	47	Brunton check on thick asp/pyr/cpy stringer set gave 270/45
GRD09-139	290.6	295.66	14	70	5	SP	qtz	asp	prt	cpy	30	40	275	31	63	NS	qtz	pyr			10					

Drill Hole Summary

Property:	Nucleus		
Zone:	Nucleus		
Drill Hole ID:	GRD09-147		
UTM Easting:	379125	**Elevation (m):**	970
UTM Northing:	6913749	**Azimuth:**	0
(NAD 83, Zone 8)		**Dip:**	-59
Depth (m):	303.28		
Drill Contractor:	Kluane Drilling Ltd.	**Logged by:**	W. Barnes
Date Started:	6-Aug-09	**Date Started:**	10-Aug-09
Date Completed:	11-Aug-09	**Date Completed:**	20-Aug-09
Core Size:	NTW		

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	10-Aug-09	0	3.25	2	0	1.67	NRC										Lost core possible overburden was tossed out by the drillers.							
Nucleus	GRD09-147	W. Barnes	10-Aug-09	3.25	4.57	3	1.67	2.74	SCH	chl	qtz			FG	FX				Unit is fairly dark green and weakly oxidized. Unit is primarily composed of chlorite and quartz with some biotite and minor clay. Unit may have been an amphibolite schist then altered to some biotite but mostly chlorite. Some clays could be from the alteration of feldspars.Minor disseminated pyrite. Minor hematite on some fractures. Unit is weakly oxidized with limonite mainly on fractures and in a few stringers and spotty over the host rock.	chl	PER	s	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	10-Aug-09	4.57	13.8	4	2.74	4.25	SCH	qtz	ser			FG	FO	BL			Alteration has obliterated most of the original characteristics of the rock. Most mafics and felsics have been silicified. Minor bands of biotite remain. Some sericite present in bands possibly from the alteration of feldspars and biotite. Spotty chlorite present as well. Minor disseminated pyrite and oxidized sulphides. Trace of possible disseminated arsenopyrite present. Unit is moderately oxidized with patchy pervasive limonite and limonite within veins, stringers and on fractures. Minor hematite on fractures and staining the rock. From 3.97m to 4.16m is a strongly clay altered and oxidized section with minor chlorite.	qtz	PER	s	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	13.8	15.7	3	4.25	5.13	AMP	amp	cla			CG	FX	MA			Alteration has masked some of the characteristics of the rock. Unit was an amphibolite or amphibolite schist but all the amphiboles have been altered to chlorite leaving there crystal shape. Some biotite alteration present possibly of the chlorite or amphiboles. Minor clay present possibly from the alteration of some feldspars. Minor quartz still present. Unit increases in fractures down the hole. Unit starts off weakly oxidized but increases to moderate oxidiation down the hole with limonite on fractures, within stringers and increasing through the host rock down the hole. Minor hematite on some fractures.	chl	PSM	s	cla	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	15.7	17.19	4	5.13	7.22	SCH	cla	chl			FG	BL	FO			Alteration and oxidation have obliterated most of the characteristics of the rock. Unit is mostly a schist with some minor amphibolite sections and vuggy quartz rich sections which could minor breccias or silicified porphyry units.. Unit is dominated by clay alteration of most felsics and some mafics. Some chlorite alteration present from biotite and amphiboles. Minor hematite on some fractures and staining the host rock. Unit is strongly oxidized with near pervasive limonite.	cla	PAT	m	chl	PAT	m	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	17.19	18.71	3	7.22	9.49	FBX	cla	chl				Z	FX	SCH	AMP	Section is highly fractured and broken with rubbly material. Minor sections of intact core remains and is a brecciated unit. Broken pieces look to be mainly schist material with some amphibolited clasts. Unit was probably similar to the unit above. Aleration and intense oxidation make it difficult to see any major characteristics of the rock and brecciation. Rubbly pieces are dominated by clay alteration with patchy chlorite alteration presumably of the amphiboles and biotite. Some sections look to be unbrecciated schist. Some silicified pieces present. Unit may have just broken apart during drilling. Patchy hematite on fractures and in the host rock. Inense oxidation with pervasive limonite.	cla	PAT	s	chl	PAT	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	11-Aug-09	18.71	20.55	2	9.49	11.78	MGR	fds	qtz			FG	FO	BL			Alteration and oxidation have obliterated most of the original characteristics of the unit. Unit appears to be a foliated microgranite, but could be a schist but unit contains lineated feldspars and quartz. Minor sections of schist present and could be xenoliths or separate units. Minor hematite on some fractures and glassy limonite. Near pervasive limonite present coating the feldspars and clay altered feldspars.	cla	DIS	m	lim	PER	s	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	20.55	27.43	4	11.78	13.89	SCH	bio	fds			FG	FO	BL			Alteration and oxidation has obliterated most of the characteristics of the rock. Unit is a schist which contains biotite, feldspars and quartz. Most of the biotite has been altered to clay and spotty chlorite. Most feldspars have been altered to clay as well. Some clays have been silicified. Patchy bleached look is due to some silicification and clay alteration. Spotty disseminated pyrite seen. Minor hematite on some fractures and patchy with limonite over the host rock. Unit is fairly fractured. Strong oxidation with near pervasive limonite.	cla	DIS	s	qtz	BAN	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	27.43	33.05	3	13.89	17.37	SCH	qtz	cla			FG	FO	BL			Alteration has obliterated most of the original characteristics of the rock. Foliation is still evident. Alteration has bleached the rock. Most mafics and felsic minerals have been replaced by silica, or altered to clay/sericite then to silica. Minor biotite remains in bands. Small amphibolite schist sections with the amphiboles altered to chlorite and minor biotite. Some biotite altered to chlorite. Minor siliceous or feldspar alteration halo around some stringers. Minor disseminated pyrite and oxidized sulphides. Minor hematite on some fractures. Unit is strongly oxidized with limonite on fractures, within veins and stringers, selvages and patchy through the host rock.	qtz	PER	s	chl	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	33.05	35.74	4	17.37	21.02	SCH	bio	fds			FG	FO				Unit is fairly altered but characteristics of the original rock are recognized. Unit looks to have been a biotite feldspar schist with some sections containing amphiboles. Some quartz present as well. Minor biotite remains but some have been altered to a dark clay and sericite leaving the crystal shape. Minor biotite has been altered to chlorite. Most feldspars have been altered to clay. All amphiboles have been altered to chlorite. Minor felsic bands present with a rough granitic look. Trace of disseminated pyrite present. Minor hematite on some fractures. Unt is weakly oxidized with limonite on fractures, within stringers and veins and minor selvages.	cla	PSM	s	ser	PSM	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	35.74	36.49	2	21.02	21.97	SCH	qtz	cla			FG	BL	FO			Alteration and oxidation has obliterated most of the characteristics of the rock. Most mafics and felsic minerals have been silicified with some altered to clay/sericite. Minerals may have been altered to clay/sericite before then silcified causin the bleached look to the rock. Foliation still evident. Minor disseminated pyrite and oxidized sulphides. Minor hematite on some fractures and as halos around some stringers. Unit is strongly oxidized with limonite near pervasive through the host rock and within veins, stringers, fractures and selvages.	qtz	PER	s	cla	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	11-Aug-09	36.49	36.97	3	21.97	22.71	SCH	cla	qtz			FG	BL	FO			Unit is similar to above just without the siliification. Most mafic and felsic minerals have been altered to a mixture of clay and sericite. Minor quartz remains in bands. Some chlorite alteration present possibly from the alteration of biotite or amphiboles. Minor hematite on some fractures and selvages. Spotty oxidized sulphides disseminated. Unit is strongly oxidized with near pervasive limonite, limonite with veins, stringers, fractures, and selvages.	cla	PER	s	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	36.97	38.03	2	22.71	23.45	MGR	fds	qtz		0.01	FG	BL				Unit is a bleached microgranite with a slight foliation near the contacts (magmatic). Bleaching makes it hard to discern between the bleached schist above. Some feldspars have been altered to clay while others have been silicified. Some fine disseminated oxidized sulphides. Unit is moderaely oxidized with limonite on fractures, within veins and stringers and patchy through the host rock.	cla	DIS	w	qtz	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	38.03	38.53	4	23.45	25.38	SCH	cla	qtz			FG	BL	FO			Alteration and oxidation have obliterated most of the original characteristics of the unit. Strong clay and sericite alteration of most feldspars and mafic minerals. Minor feldspars remains. Minor chlorite alteration at the start of the interval from the alteration of mafics. Clay alteration decreases down the hole leaving a muscovite or sericite altered schist. Contact with the upper microgranite is weakly silicfied and coarser grains. Minor oxidized sulphides around some veins and stringers. Unit is moderately to strongly oxidized with limonite on fractures, within veins and stringers, selvages and patchy through the host rock. Oxidation decreases down the hole.	cla	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	38.53	40.06	2	25.38	27.08	SCH	qtz	ser			FG	BL	FO			Alteration has obliterated most of the original characteristics of the rock. Unit could have been a mafic rich or felsic rich schist. Unit has been silicified with quartz replacing most felsic and mafic minerals. Some sericite still present. Unit may have been altered to clays and sericite then silicified. Spotty hematite on some fractures. Unit is moderately oxidized with limonite on fractures, within stringers and veins, selvages and patchy through the host rock.	qtz	PER	s	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	40.06	41.35	4	27.08	27.49	MGR	fds	qtz			MG	BL	FO			Unit is composed of mostly of microgranite intrusions through the schist subparallel to the foliation. The microgranite is composed of feldspars and quartz with some feldspars being silcified. Spotty sericite alteration of the feldspars. Minor brecciation around the contacts. Schist sections are fractured and mottled and mostly silicified with minor sericite alteration. Minor hematite on some fractures. Unit is strongly oxidized with limonite on the fractures, within stringers and veins, selvages and patchy through the host rock.	qtz	PER	s	ser	DIS	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	11-Aug-09	41.35	43.79	1	27.49	33	SCH	mus	qtz			FG	BL	FO			Unit is highly altered or not. Unit is composed of quartz and sections of fine and coarse grained sericite or muscovite. Unsure if the muscovite or sericite is primary or secondary, but by the grain size change it seems secondary. Ssericite could be from the alteration of feldspars and/or biotite. Minor silcification in patches of this sericite or muscovite and other clays. Some sections are of different composition or just not altered as much as minor biotite and feldspars seen. Some spotty oxidized sulphides disseminated. Minor hematite on some fractures and staining the host rock. A couple of foliated microgranite sections present. Unit is moderately oxidized with with limonite on some fractures. within some stringers and veins, some selvages and patchy through the host rock.	mus	BAN	s	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	43.79	45.68	3	33	34.84	SCH	qtz	ser			FG	BL	FO			Alteration has again obliterated the unit. Unit is probably same as above just a different alteration. Unit has been silicified with mafic and/or felsic minerals have been replaced by quartz or first altered to sericite and other clays then replaced by quartz. Minor sericite remains. Unit is finer grained than above foliation is still evident. Silica alteration decreases down hole. Minor breccia present. Minor hematite present on some fractures. Unit is strongly oxidized with limonite on some fractures, within some veins and stringers, selvages and through the host rock.	qtz	PER	s	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	45.68	48.06	4	34.84	36.31	SCH	qtz	chl			FG	FO	BL			Hematite seen on some fractures. Trace of disseminated pyrite along the foliation. Unit goes from strong to weak oxidation with limonite on the fractures, within veins and stringers, selvages and disseminated within the host rock for the first half of the interval.	qtz	BAN	m	chl	DIS	w	
Nucleus	GRD09-147	W. Barnes	11-Aug-09	48.06	48.55	2	36.31	39.48	AMP	amp	bio			MG	FO	MA			Alteration has obliterated some of the characteristics of the unit. Unit was an amphibolite or amphibolite schist since a slight foliation or shear sense seen. Most amphiboles have been altered to chlorite and some to biotite and then sericite. Some biotite could be primary and then altered to chlorite and sericite. Minor feldspar sections present in between relict amphibole grains. Patchy sections of strong oxidation present with an increase in clay alteration. Minor disseminated pyrite. Hematite along fractures and in bands along foliation. Unit is weakly oxidized with limonite mainly on fractures and within stringers. Patchy sections contain strong oxidation with near pervasive limonite from 36.58m to 36.93m and from 38.04m to 38.45m. Small granitic intrusion present with disseminated pyrite and oxidized sulphides. Contact with the upper schist is radational over 10cm but follows the foliation.	chl	PSM	s	bio	PSM	w	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	48.55	51.05	4	39.48	40.17	AMP	amp	fds			VC	MA				More typical amphibolite intersected. Unit is very coarse grained composed of amphiboles and feldspars with rare quartz and biotite. Most amphiboles are altered to chlorite. Minor sericite alteration present. Unit contains minor disseminated and blebs of pyrite. Minor hematite on some fractures and within the host rock. Unit is weakly oxidized with limonite on fractures and within a few stringers.	chl	PSM	s	ser	DIS	tr	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	12-Aug-09	51.05	59.64	2	40.17	41.29	AMP	amp				MG	MA	MO			Alteration and oxidation have obliterated most of the original characteristics of the rock. Unit was and amphibolite with abundant amphiboles and minor feldspars. All amphiboles have been altered to a mixture of clays. Most feldspars have been altered to clays and sericite. Minor crystal shape of some amphiboles seen.Patchy sections contain hematite staining. Gradational alteration contact with the upper and lower units. Intense oxidation with pervasive limonite. Small microgranite dike present that is relatively fresh.	cla	PER	i	ser	DIS	tr	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	59.64	70.79	1	41.29	43.81	AMP	amp	fds			VC	MA				Unit is a very coarse grained amphibolite unit where the alteration decreases to the center of the interval and then increases down the hole to the lower interval. Unit was mainly composed of amphiboles and feldspas with spotty quartz. Some amphiboles have been altered to chlorite but leaving the crystal shape. Spot sericite alteration of some feldspars. Spotty disseminated and blebby pyrite. Trace of disseminated pyrrhotite. Unit is weakly oxidized with limonite mainly on fractures and within a few stringers. Small granitoid section present composed of feldspars and a high amount of mafics altered to chlorite, could be flooding from the amphibolite.	chl	PSM	m	ser	DIS	tr	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	70.79	75.92	0	43.81	45.52	AMP	amp	fds			VC	MA	MO			Back into a highly altered and oxidized amphibolite similar to the one from 40.17m to 41.29m. Slight foliation or shear sense part way through the interval (could be an amphibolite schist). The amphiboles have mostly been altered to chlorite with some sections the chlorite is altered to clay and sericite. Some amphiboles may have been altered to biotite then chlorite and/or clay/sericite. Most feldspars have been altered to clay/sericite. Minor hematite splotches around some veins. Oxidation is patchy from strong to intense with near pervasive limonite in sections. Towards the end of the unit are intrusive fingers or veins composed of feldspars and minor quartz.	chl	PSM	m	cla	DIS	m	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	75.92	76.97	3	45.52	48.03	AMP	cla	chl			FG	MO	MA			Alteration and oxidation have obliterated most of the original characteristics of the unit. The start and end and spotty sections look to be amphibolite in texture. Most sections are just massive clay, limonite and hematite with minor chlorite, some relict amphibole crystal shapes seen. All amphiboles and feldspars have been altered to mostly clay and minor chlorite. Unit is intensely oxidized with pervasive limonite and patchy pervasive hematite. Minor possible breccia present with a vuggy matrix.	cla	PER	s	chl	PAT	w	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	76.97	80.95	4	48.03	48.64	AMP	amp	fds			CG	MA	FO			Back into a less oxidized and altered amphibolite. Minor foliation seen and unit could be an amphibolite schist. Most amphiboles are altered o chlorite with some chlorite or amphiboles altered to clay at the gradational alteration contacts with the above abd below sections. Minor feldspars present altered to clay at the upper and lower alteration contacts like the amphiboles. Minor disseminated pyrite present. Unit is strongly oxidized at the ends and weakly oxidized in the middle.	chl	PSM	s	cla	PAT	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	12-Aug-09	80.95	82.6	2	48.64	49.19	AMP	cla	chl			FG	MO	MA			Alteraion and oxidiation have obliterated most of the original characteristics. Unit starts off as a highly altered and oxidized amphibolite with clay and chlorite alteration and spotty relict amphiboles seen. Down hole the Unit has just turned into mostly clay with no recognizable characteristics. Intense oxidation present with pervasive limonite. Minor hematite blebs associated with the limonite. Doesn't look like a fault.	cla	PER	s	chl	PAT	w	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	82.6	82.97	3	49.19	49.57	SCH	cla	fds			FG	FO				Alteration and oxidation have obliterated most of the original characteristics of the section. Foliation is evident with definite banding. Unable to tell what the original lithology minerals were as intense clay alteration of any mafic and felsic minerals. Spotty feldspars and quartz remain. Splotches of hematite throughout. Unit is intensly oxidized with pervasive limonite.	cla	BAN	s				
Nucleus	GRD09-147	W. Barnes	12-Aug-09	82.97	84.38	2	49.57	49.96	GRN	fds	qtz			MG	MO				Alteration and oxidation have obliterated most of the original characteristics of the rock. Unit looks to start in some brecciated schist and move into a bleached/blended crystalline unit lacking foliation. Unit has a rough granitoid look when not masked by limonite and hematite. Unit is mostly composed of feldspar and quartz with some feldspars altered to clay. No mafic minerals seen. Unit ends in a breccia with schist and granitoid material. Patchy hematite sections near veins. Intense oxidation with pervasive limonite.	cla	PAT	m				
Nucleus	GRD09-147	W. Barnes	12-Aug-09	84.38	89.97	3	49.96	50.38	QFP	fds	qtz	2	20	VF	PO				Small QFP unit that is fractured. Unit contains 20% feldspar phenocrysts 1-4mm in size and subhedral to euhedral in shape. Unit contains 2% quartz phenocrysts 1-2mm in size and subhedral in shape. The matrix is aphanitic and was mostly composed of feldspars and minor quartz. Unit starts with the matrix clay altered then becomes silicfied. Spotty dark oxidized sulphides disseminated. Unit is moderatley oxidized with limonite on fractures, within veins and stringers and patchy through the host rock.	cla	PER	m	qtz	PER	m	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	89.97	92.41	2	50.38	51.02	SCH	cla	qtz			FG	BX				Alteration and oxidation have obliterated most of the original characteristics of the rock. Unit is intensely clay altered with most felsic and all mafic minerals altered to clay. Minor quartz remains. Vuggy brecciated contact with the upper QFP. Minor breccia throughout interval creating a variable foliation when seen. Minor disseminated hematite and pyrite. Unit is intensly oxidized with pervasive limonite throughout.	cla	PER	s				
Nucleus	GRD09-147	W. Barnes	12-Aug-09	92.41	92.82	4	51.02	52.67	SCH	cla	qtz			FG	BL	FO			Alteration has masked most of the original characteristics of the rock. Foliation and banding still evident. No mafic minerals seen, assume there was biotite. Most felsic (feldspar) minerals are altered. Dominant alteration is a mixture of clays including sericite. Unit could be confused with a foliated microgranite. Clay alteration is giving the bleached look. Minor disseminated pyrite and trace of disseminated arsenopyrite. Unit is weakly oxidizd with limonite mainly on some fractures and within some veins and stringers with small limonite selvages.	cla	BAN	m	ser	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	12-Aug-09	92.82	97.5	2	52.67	54.57	MGR	fds	qtz			FG	BX	BL			Exteremely bleached microgranite unit. Sections look to be a schist but could be a clast. Difficult to distinguish the unit from the schist. Most feldspars have been altered to clay and some sericiteAt the end of the unit is a small QFP dike. Brecciated sections contain vuggy veins with quartz crystals coated in hematite. Minor pyrite and tarnished pyrite within these vugs. Minor disseminated pyrite and trace of chalcopyrite and arsenopyrite. Unit is weakly oxidized with limonite on some fractures, within some veins and stringers and minor selvages.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	97.5	102.33	1	54.57	59.89	SCH	fds	qtz			MG	FO	BL			Alteration is masking some of the characteristics of the original rock. Unit was some sort of feldspar mafic schist with quartz , possibly a mylonitic unit or sheared intrusive. No mafics seen. Mafic minerals and some feldspars look to have been altered to sericite and other clays. Some sericite is coarse grained and could be original muscovite or jus crystal growth which has been seen with biotite alteration. Some felsic bands look like sheared granitic sections or pegamatites with stretched grains. Some disseminated pyrite and fine dark oxidized sulphides and trace of arsenopyrite. Minor hematite seen on some fractures. Unit is weakly oxidized with limonite on some fractures and within a few stringers.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	12-Aug-09	102.33	135.08	0	59.89	64.34	QFP	fds	qtz	1	10	VF	PO				Moderately altered QFP. Unit contains 10% feldspar phenocrysts 1-8mm in size subhedral to euhedral in shape. Most feldspar phenocrysts are altered to clay. Unit contains 1% visible quartz eyes 1-3mm in size and subhedral in shape. Some quartz eyes are replaced by pyrite so there could be more quartz eyes since there are blebby sulphides. Some quartz eyes have pyrite rimming and and in the center. Matrix is aphanitic and mostly clay altered with some siliceous patches with quartz replacing clays and feldspars. Pyrite is mostly disseminated and blebby. Trace of disseminated chalcopyrite present. Unit is weakly oxidized with limonite on fractures, within stringers/veins and minor selvages.	cla	PER	m	cla	PHE	i	
Nucleus	GRD09-147	W. Barnes	13-Aug-09	135.08	139.17	1	64.34	69.9	QFP	fds	qtz	4	35	VF	PO				Could have intersected another QFP unit or it is the same one as above just with more phenocrysts. Unit contains 35% feldspar phenocrysts 1-12mm in size and subhedral to euhedral in shape. Most feldspar phenocrysts are clay altered. Some of the larger feldspar phenocrysts are zoned. Some feldspar phenocrysts are partially or fully replaced by pyrite. Unit contains 4% quartz phenocrysts 1-5mm in size and subhedral in shape. Some quartz phenocrysts are partially replaced by pyrite. Matrix is aphanitic and composed of feldspars and minor quartz. Some feldspars within the matrix have been clay altered. Down the hole the phenocryst amount deceases and patchy silica replacement of some feldspars within the matrix. Unit contains disseminated and blebby pyrite. Unit is weakly oxidized with limonite mainly on fractures and within a few stringers.	cla	PER	m	cla	PHE	s	Some veins have a siliceous selvage.

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	13-Aug-09	139.17	145.49	0	69.9	70.53	SCH	cla	qtz			FG	FO	BL			Alteration has masked some of the characteristics of the rock. Unit could have been a mafic or felsic rich schist, but all mafic minerals and/or most feldspars have been altered to light grey clay mix giving the bleached look to the rock. Alteration caused by the surrounding QFP units. Foliation still evident. Minor sericite mixed with the clays. Unit contains minor pyrite, oxidized pyrite, oxidized dark sulphides and bornite disseminated and on fractures.	cla	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	13-Aug-09	145.49	149.82	2	70.53	77.24	QFP	fds	qtz	3	40	VF	PO				Entered a new or same QFP unit as before the above schist. Slightly more phenocrysts present. Unit contains 40% feldspar phenocrysts 1-15mm in size and subhedral to euhedral in shape. Most if not all feldspar phenocrysts have been altered to a clay mixtured and some with a buff colour. Some feldspar phenocrysts are replaced by sulphides and some are zoned. Unit contains 3% quartz phenocrysts 1-5mm in size and subhedral in shape with some partially replaced by sulphides. Matrix is aphanitic and was composed of feldspars and minor quartz. Most feldspars within the matrix have been altered to clay. Unit contains disseminated and blebby pyrite and oxidized pyrite. The end of the unit is brecciated.	cla	PER	s	cla	PHE	s	
Nucleus	GRD09-147	W. Barnes	13-Aug-09	149.82	157.58	0	77.24	79.82	BRX	cla	lim				Z	P	SCH	QFP	Alteration, oxidation and brecciation have obliterated most of the characteristics of the rock. The start of the breccia looks to be mostly QFP clasts within a QFP matrix. Then down the hole more schist clasts become present and dominant. Most clasts are clay altered. Intense oxidation and near pervasive limonite make it difficult to see the characteristics of the breccia. Clasts appear to be subangular and 3mm to 10cm in size and section is clast supported. Matrix is mostly composed of clay and minor quartz, possibly a QFP style matrix. Patchys sections and stringers contain limonite. Spotty oxidized sulphides present in some clasts.	cla	PAT	s	lim	PAT	s	
Nucleus	GRD09-147	W. Barnes	13-Aug-09	157.58	161.88	1	79.82	80.94	QFP	fds	qtz	3	45	VF	PO	BX			Oxidation, alteration and brecciation have masked some of the characteristics of the rock. Unit is still strongly oxidized with near pervasive limonite and limonite within stringers. Unit is minorly brecciated with clay and limonite with minor quartz as fractured fill. Unit contains 45% feldspar phenocrysts 1-5mm in size and subhedral to euhedral in size. All the feldspar phenocrysts are clay altered with most having a limonite stain. Unit contains 3% quatz phenocrysts 2-3mm in size and subhedral in shape. Matrix is aphanitic and was composed of feldspar and minor quartz. Most feldspars within the matrix have been altered to clay. Minor disseminated oxidized pyrite and dark sulphides present.	cla	PER	s	cla	PHE	i	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	13-Aug-09	161.88	303.28	0	80.94	84.56	QFP	fds	qtz	5	45	VF	PO				Similar to the unit above but less oxidzed and less brecciated. Minor brecciated sections with clay, limonite and minor quartz infill. Unit contains 45% feldspar phenocrysts 1-7mm in size and subhedral to euhderal in shape. All of the feldspar phenocrysts are clay altered with some replaced by sulphides. Unit contains 5% quartz phenocrysts 2-4mm in size and subhedral in shape. Matrix is aphanitic and composed of feldspar and minor quartz. Most of the feldspars have been partially or fully clay altered minor silicification present. Unit contains patchy strong oxidation and clay alteration. Clay alteration decreases down the hole. Unit contains minor disseminated pyrite and oxidized pyrite. A trace of disseminated chalcopyrite seen.	cla	PER	m	cla	PHE	i	
Nucleus	GRD09-147	W. Barnes	13-Aug-09				84.56	91.63	SCH	bio	fds			FG	FO				Fresh looking schist composed of biotite, feldspars and quartz with minor muscovite in distinctive felsic and mafic rich bands (ligh and dark grey). Not the typical Nucleus schist with strong biotite (secondary) and feldspars and quartz. Unit is more typical of the western side of Nucelus. Rare garnets seen. Minor sericite alteration of some feldspars and biotite. Unit is moderately oxidized with strong limonite in patches with strong clay alteration. Minor limonite on fractures and within veins and stringers and selvages. Unit contains minor disseminated pyrite. Minor pyrite and hematite on some fractures. A few microgranite intrusives present mostly following foliation. Some small breccia zones present with some being vuggy.	ser	DIS	w	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	13-Aug-09				91.63	93.03	MGR	fds	qtz			FG	BL	FO			Altered microgranite with a slight foliation. Unit was mostly composed of feldspars with lesser feldspars. Most of the feldspars have been altered to clay and minor sericite. Quartz grains are linear giving the foliation. Some clays have leached out leaving a pitted appearance. Some minor ine disseminated dark oxidized sulphides. Oxidation increases down the holes with limonite mainly on fractures at the start to near pervasive at the end. Small schist section present similar to the above unit, not a xenolith.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	13-Aug-09				93.03	93.82	SCH	bio	qtz			FG	FO				Unit is similar to above but contains about 60% schist sections separating separate microgranite intervals. Microgranite sections are still slightly foliated with clay altered feldspars. Schist sections are foliated and fresh looking with minor clay and sericite alteration. Oxidation decreases down the hole. Minor fine disseminated dark oxidized sulphides mainly present within the microgranite.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	13-Aug-09				93.82	94.18	MGR	fds	qtz			FG	BL				Altered microgranite again. Most feldspars have been altered to a mixture of clay and minor sericite. Very faint lineation of the quartz grains but orientation not clear. Some clays have been leached out leaving a pitted appearance. Minor disseminated oxidized sulphides and pyrite.	cla	DIS	m	ser	DIS	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	13-Aug-09				94.18	96.13	SCH	bio	fds			FG	BX	FO			Fresh looking schist similar to the ones above composed of biotite feldspar and quartz in roughly equal proportions. Unit is brecciated, fractured and under a degree of stress. The brecciation and stress has cause some schist sections to rotate and bend causing the foliation to be contorted. mafic and felsic rich banding is still evident with dark and light grey colours. Fractures are filled with clay, limonite, quartz and sulphides. Unit looks sheared. Some fractured and offset microgranite sections present. Minor clay and sericite alteration of some feldspars and biotite. Minor primary muscovite fresent. Unit is weakly oxidized with limonite on fractures and within stringers and veins. Minor disseminated pyrite, mainly in selvages.	ser	DIS	w	cla	DIS	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				96.13	98.24	SCH	bio	qtz			FG	FO				Back into a well foliated fresh schist. Unit is mostly composed of mafic rich and felsic rich bands (dark grey to light grey/white. Unit is composed of biotite, quartz and feldspars. Some siliceous replacement resent. Patchy clay/sericite alteration around some microgranite sections. Microgranites are clay altered. The end of the unit becomes bleached and clay altered. Minor disseminated pyrite. Unit is weakly oxidized with limonite on some fractures and within some veins.	qtz	BAN	w	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				98.24	98.78	FIN	cla	qtz		1	FG	BL				Unknown beige felsic intrusive that is strongly altered. Unit could be a bleached microgranite. Different from the schist because no banding seen and a rough crystalline matrix with minor 1mm feldsar phenocrysts. Most feldspars within the matrix have been altered to clay/sericite. Spotty oxidizeddark sulphides present. Upper contact is vague due to alteration of upper unit.	cla	DIS	s	qtz	SEL	tr	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				98.78	99.74	FIN	qtz	cla		1	FG	BL				Similar to the above unit but now mostly silicified with minor clay alteration. Spotty 1mm feldspar phenocrysts present. Alteration is masking all other characteristics of the rock. Unit is weakly oxidized with minor limonite in some stringers.	qtz	PER	s	cla	DIS	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				99.74	100.64	FIN	cla				FG	BL				Back into a a more intense clay altered section of the unit above. All feldspars have been altered to clay. Spotty quartz present. No feldspar phenocrysts seen.	cla	PER	i	qtz	SEL	tr	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				100.64	101.93	BRX	cla	qtz				Z	M	FIN		Unit has now become moderately brecciated with many fractures filled with clay, quartz and minor sulphides. Unit is still clay altered just not as intense as above. Minor disseminated pyrite and oxidized sulphides present. Rough crytsalline texture still seen. No feldspar phenocrysts present. Breccia could be mixed with schist material.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	14-Aug-09				101.93	102.61	SCH	qtz	bio			FG	BX				Dark grey banded and light grey banded brecciated schist. Unit looks to have contained fresh biotite quartz and feldspars. Unit has been partially silicified due to the brecciation. Unit is highly fractured with some weakly rotated schist clasts. Fractures are infilled with quartz, clay, minor sulphides and limonite. Minor vugs present. Spotty clay alteration of feldspars and minor biotite. Minor disseminated pyrite and dark sulphides. Uni is weakly oxidized with limonite in a few stringers and fracture fill. Brecciation decreases down the hole.	qtz	PAT	m	cla	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	14-Aug-09				102.61	103.57	MGR	fds	qtz			FG	BL				Alteration is masking most of the original characteristics of the rock. Unit was mostly composed of feldspars and lesser quartz, but most of the feldspars have been altered to clays and sericite giving the bleached look and light beige colour. Unit is foliated at the ned with linear quartz grains. Trace of fine dark sulphides present.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				103.57	106.97	SCH	bio	qtz			FG	FO				Back into a realatively fresh well foliated schist. Unit is composed of fresh biotite and quartz and feldspar in light and dark grey bands. Schist is not similar to the biotite (secondary purple) schist seen in more eastern nucleus holes. Unit isn't a sheared granite. Minor silicification of some bands. Down the hole there is an increase in clay and sericite alteration with minor chlorite of the biotite and feldspars. Pathy brecciated sections present. Possible minor graphite within some mafic bands. minor disseminated pyrite and dark sulphides.	cla	BAN	w	qtz	BAN	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				106.97	107.92	BRX	qtz	bio				M	A	SCH		Unit is a brecciated unit with clasts of the fresh schist above. Clasts range in size from a 2mm to 15cm and are angular. Unit is partly heavily fractured and clasts are seprated by clay and quartz and minor sulphides. Some clasts are clay altered or silicified. Minor vugs within the matrix. Minor pyrite disseminated in some clasts.	qtz	PAT	w	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				107.92	110.03	BRX	cla	qtz				P	Z	SCH	MGR	Similar style breccia as above just more clay alteration of the schist clasts and spotty microgranite clasts. Clasts are mixed between angular and subrounded. Unit is still clast supported. There is less quartz in the matrix and more clay.	cla	PAT	s				
Nucleus	GRD09-147	W. Barnes	14-Aug-09				110.03	111.08	MGR	fds	qtz			FG	FO	BX			Alteration and minor brecciation has masked some of the characteristics of the rock. Unit is minorly brecciated with clay, quartz and sulphide infill. Microgranite is foliated but foliation is random due to brecciation. Most feldspars have been altered to clay and sericite. Minor disseminated dark sulphides present. Possible small schist clasts or sections present but alteration makes it difficult to determine between the two units.	cla	DIS	s	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				111.08	111.86	BRX	cla	qtz				Z	P			Alteration and brecciation have masked most of the characteristics of the rock. Unit is mostly a highly fractured schist with offset clasts. Minor brecciated sections with slightly rolled clasts. Clasts are subrounded. Becciation decreases down the hole. Most of the schist clasts are clay and sericite altered with quatz bands remaining. Minor microgranite clasts or dikes present that are also clay and sericite altered. Fractures and matrix of breccia sections are filled mainly with clay and minor quartz and sulphides.	cla	PAT	m	ser	PAT	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				111.86	115.57	SCH	bio	qtz			FG	FO	FX			Alteration has masked some of the characteristics of the unit. Unit was a biotite quartz feldspar schist. Most of the biotite and feldspars have been altered to coarser sericite and other pale yellow clays. Minor fresh biotite and feldspar remain. Spotty epidote resent. Rare feldspar augens/porphyroblasts present showing dextral/right lateral movement. Rare biotite altered garnets present. Unit is fairly fractured with clay along the fractures. Minor disseminated pyrite and dark sulphides.	ser	BAN	m	cla	FFL	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	14-Aug-09				115.57	117.94	FAU	ser	qtz			FG	FX				Unit is a faulted schist with many little faults and fractures within a schist unit. Faulting and fractures seem to be following the foliation mainly, no real fault gouge present just exploded grinded schist material. Schist was composed of biotite, quartz and feldspar. Most of the biotite and feldspar has been altered to sericite and clays. Minor biotite has been altered to purple secondary biotite. Spotty dark sulphides seen within more competant sections within quartz bands.	ser	BAN	s	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				117.94	124.87	SCH	bio	fds			FG	FO				Unit looks like the altered form of the fresher light and dark grey banded well foliated schist encountered earlier in the hole. Remnant sections of that schist are seen within this interval. Most of the biotite and feldspars have been altered to yellow/green sericite. Minor feldspars have been altered to clay and secondary biotite. Minor fractured and brecciated sections present. Unit contains biotite altered garnet porphryoblasts some showing left lateral movement/sinistral. Minor disseminated pyrite and chalcopyrite present especially around some veins.	ser	BAN	m	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	14-Aug-09				124.87	125.85	SCH	bio	fds			FG	MO				Unit is similar to above except the foliation is highly contorted and folded with no real orientation. Same alteration and mineralization. Minor breccia present.	ser	BAN	m	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				125.85	132.28	SCH	bio	fds			MG	FO				Unit has become less contorted but still altered. Foliation is more regular within minor contorted sections and weak folded sections. Unit was a biotite feldspar quartz schist with garnets. Most of the biotite has been altered to sericite and minor secondary biotite. feldspars have been altered to a mixture of clays and sericite. Garnets have been altered to sericite and minor chlorite. Some minor sections of unaltered schist and silicfied schist present. Alteration decreases down the hole. Unit contains minor disseminated and fracture filled pyrite.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				132.28	135.54	SCH	bio	qtz			FG	FO				Now back into a dark and light grey banded well foliated schist. More mafic rich bands than felsic rich bands. Unit is composed of fresh biotite, quartz and feldspars. Minor sericite and clay alteration of some biotite and feldspars. Clay and sericite alteration increases down the hole. Minor disseminated pyrite mainly within felsic bands. Small microgranite dike cutting foliation near the end of the hole.	ser	BAN	w	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				135.54	136.33	FAU	cla	ser			FG	FX				Faulted section of the same schist unit above. Unit is highly fractured with many faults marked by clay, sericite and gougy sections. Some sections look broken down. Pale yellow colour. Quartz bands remain along with minor biotite. Most biotite and feldspars are altered to clay, sericite. Faulting and fractures follow foliation. Spotty pyrite within remnant felsic sections.	ser	BAN	m	cla	BAN	m	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				136.33	136.73	MGR	fds	qtz			FG	BL				Light buff microgranite that is fine grained with minor sections that are coarse grained. Unit could be part granite and microgranite or porphyritic microgranite. Unit is mostly composed of feldspars with lesser quartz. Minor sericite and silica alteration of some feldspars. Minor siliceous halo around some veins. Minor disseminated pyrite and fine dark sulphides.	ser	DIS	w	qtz	DIS	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	15-Aug-09				136.73	137.25	FAU	cla	ser			FG	FX				Similar to the faulted schist encountered from 135.54m to 136.33m. Schist unit has been broken along fractures and foliation and is strongly sericite and clay altered with a pale yellow colour. Minor biotite remains. Primary quartz bands remain. Schist unit has been broken down to grains. Minor hematite on some fractures.	ser	BAN	s	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				137.25	138.02	SCH	bio	fds			FG	MO				Mottled and contorted altered schist unit. Foliation is random and folded possily due to faults and intrusions around. Unit was a fresh biotite feldspar quartz schist like the ones encountered earlier in the hole. Some biotite has been altered to sericite and minor secondary biotite. Some feldspars have been altered to sericite and clay.Unit contains minor pyrite in some felsic/quartz bands. Some minor microgranite dikes present.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				138.02	139.01	MGR	fds	qtz			FG	BX				Alteration is masking some of the characteristics of the rock. The start of the unit is mottled and could be a schist with patchy silica and clay alteration. The unit then hits a small breccia with schist material similar to the upper unit and microgranite clasts then the unit ends in definite microgranite that is altered to sericite. The microgranite sections do have a crystalline look. Minor disseminated dark sulphides and pyrite.	ser	DIS	w	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				139.01	140.34	MAI	bio	cla			VF	PO				Alteration has obliterated most of the original characteristics of the rock. Unit looks to be whats left of an basalt or andesiteof the Carmacks group unit that has been altered to secondary biotite and clay with some quartz or feldspar. Some sections look to contain some clay altered tremolite. Around 2% 1-2mm phenocrysts present altered to biotite. Large quartz and pyrite vein present through unit. Upper and lower contacts are white/tan clay altered similar to some mineralized skarn zones in contact with the granite. Minor disseminated pyrite and chalcopyrite.	bio	PER	s	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	15-Aug-09				140.34	140.71	BRX	cla	qtz				Z	P	SCH	AMP	Highly altered breccia zone making it difficult to see some of the characteristics. Unit looks matrix supported with clay and quartz and milled up schist, amhibolite and microgranite material with minor sulphides. Clasts are subrounded and 2mm to 5cm and are mostly schist with minor microgranite. Some schist fragments are siliceous and contain mineralization, some schist clasts are clay altered. Some veins are present that cross cut the breccia.	cla	PAT	m	qtz	PAT	m	Alteration of clasts.
Nucleus	GRD09-147	W. Barnes	15-Aug-09				140.71	141.22	MGR	fds	qtz			FG	FO				Altered foliated microgranite. Unit was composed of feldspars and quartz. Most feldspars have been altered to clay with some clay leached out leaving a pitted appearance. Quartz grains are stretched showing a foliation. Minor disseminated dark sulphides and pyrite. Upper contact is brecciated.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	15-Aug-09				141.22	144.65	SCH	qtz	ser			FG	FO	BL			Unit looks like the altered version of the fresh biotite feldspar quartz schist encountered earlier in the hole. Most of the biotite and feldspars have been altered to sericite and other clays. Minor silica replacement of these clays on the upper part of the unit but decreases down the hole. Quartz rich bands and sweats remain in abundance (30% of the unit). Minor pyrite and chalcopyrite present within these quartz bands.	ser	BAN	s	qtz	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	15-Aug-09				144.65	145.49	MGR	fds	qtz			MG	EG	FO			Altered and slightly foliated microgranite. Unit contained feldspars and quartz. Most of the feldspars have been altered clay and minor sericite. Some clays have been leached out leaving a pitted appearance. Quartz grains remains and some have been stretched leaving a foliation. Foliation measurement is rough. Minor disseminated fine dark sulphides and pyrite.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				145.49	146.1	SCH	bio	fds			FG	FO	BL			Unit was a fresh biotite feldspar quartz schist like the one previously encountered in the hole before being altered. Unit looks to be silicified after being altered to sericite. Most biotite and feldspars were altered to sericite and other clays then silicified. Some biotite looks to be altered to secondary purple biotite. Some sericite remains. Unit is still well foliated with definite banding. Unit contains minor disseminated dark sulphides and pyrite. Small foliated microgranite unit present at the end.	qtz	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				146.1	146.57	MAI	cla	chl			VF	PO				Another possible Carmacks group andesite or basalt. Alteration has obliterated most of the characteristics of the rock. Most mafics and feldspars have been altered to a mixture of clays and possible chlorite. Small 1mm phenocrysts were present and now altered to clay and biotite and some replaced by pyrite. Minor disseminated pyrite and fine dark sulphides.	cla	PER	s	chl	DIS	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				146.57	148.9	SCH	bio	qtz			FG	FO	FX			Back into an altered version of the fresh biotite quartz feldspar schist encountered earlier in the hole. Unit is still well foliated and banded. Unit is highly fractured and sections are broken and rubbly. Minor brecciated sections present. Mafic minerals and feldspars have been altered to a mixture of clays and feldspars. Minor disseminated pyrite and fine dark sulphides. Unit is moderately oxidized with limonie on fractures and within veins.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				148.9	150.32	MAI	cla				VF	PO				Back into another altered version of the possible Carmacks andesite or basalt. All mafics and feldspars have been altered to clay with a limonite stain. Minor 1-2m phenocrysts were present but now clay altered and some filled with limonite probably becuase the phenocrysts were replaced by sulphides. Some phenocrysts are leached out leaving a pitted appearnace. Minor disseminated dark oxidized sulphides. Towards the lower contact with the breccia below the unit becomes silicified and contains more pyrite.	cla	PER	s	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				150.32	151.18	SBX	qtz	cla				P	X	SCH	MAI	Sulphide rich breccia that is mostly matrix supported. Clasts include schist and mafic intrusive from the aboe unit. The clasts are subrounded to subangular and are 2mm to 25mm in size. Most clasts are silcified while others are clay aletered. The matrix is primarily composed of quartz, clay and sulphides with some milled up fragments. Some clasts contain pyrite. Matrix is composed of mostly pyrite, fine dark sulphides and minor chalcopyrite and arsenopyite. A few pyrite rich veins cross cut the breccia.	qtz	PAT	s	cla	PAT	w	Alteration of clasts.

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	16-Aug-09				151.18	154.01	BRX	qtz	cla				Z	C	SCH		Breccia zone continues but the amount have sulphides has decreased. Unit is mostly made up of schist clasts from 2mm to 15-20cm. Most of the sections look like a schist unit that has been fractured and slightly rotated as the foliation is random. Some clasts are clay altered while others hae been silicified aftere being clay altered. Fractures and matrix sections are filled with clay, quartz and sulphides. Schist sections contains blebs and disseminated pyrite and fine dark sulphides. Alot of sulphides seem to bleed out from some veins x-cutting the breccia. Unit is weakly oxidized with some limonite on fractures and within veins.	cla	PAT	m	qtz	PAT	m	Alteration of clasts.
Nucleus	GRD09-147	W. Barnes	16-Aug-09				154.01	155.43	FAU	cla	ser			FG	MO				Faulted schist section, could be termed a fault breccia. Unit is dominated by clay and broken schist material. Some gougy sections. Schist sections are clay and sericite altered with some broken quartz bands present. Some minor pyrite present in some felsic bands.	cla	PER	s	ser	PAT	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				155.43	158.29	SCH	cla	qtz			FG	BX	MO			Back into a relatively competant schist that has somewhat of a regular folaition with some brecciated sections and contortered sections. Some places the schist looks stretched. Unit may have been a biotite feldspar quartz schist before alteration. All mafics and most feldspars have been altered to a mixture of clay and sericite. Quartz banding present and some are broken and streteched apart from brecciation and stress. Minor pyrite and fine dark sulphides present mainly within quartz rich bands and sweats.	cla	BAN	s	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				158.29	160.02	SCH	cla	qtz			FG	FX	BX			Highly fractured and broken section similar to the above unit. Unit was probably a biotite feldspar quartz schist before alteration. All mafics and feldspars hae been altered to clay and sericite. Spotty silicification present. No real movement of schist fragments just fractured and angular. Minor thin clay gougy zones along fractures. Minor sulphides present in felsic bands.	cla	BAN	s	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				160.02	160.72	BRX	cla	qtz				M	X	SCH		Still a highly fractured section and more brecciated schist. Schist clasts are separated with little movement and are still angular. Core is not rubbly, it is intact. Simlar to the other altered schist above with mafic and feldspar minerals altered to clay and sericite. Minor silicfication of some clasts. Clasts have a wide range of sizes. Matrix filling fractures separating clasts is clay and minor quartz. Minor sulphides preent in remnant quartz bands.	cla	PAT	s	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				160.72	161.8	FAU	cla				FG	MO				Highly altered broken down schist similar to above with gougy sections. Minor competant sections present. Schist is mostly broken down to clay. Minor section of secondary purple biotite and quartz remain.	cla	PER	s				
Nucleus	GRD09-147	W. Barnes	16-Aug-09				161.8	163.49	SCH	cla	qtz			FG	BX	MO			Alteration and brecciation have obliterated most of the characteristics of the unit. Foliation and banding within the schist has been obliterated with fragments of bands (mainly quartz) rotated and milled about. Down the hole the brecciation decreases and foliation is evident but contorted. Unit was probably a biotite feldspar quartz schist before. Most of the biotite and feldspars have been altered to various clays and sericite. Minor purple secondary biotite present. Unit is a milled up schist. Minor disseminated pyrite and chalcopyrite present.	cla	PER	s	ser	DIS	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	16-Aug-09				163.49	167.76	SCH	bio	qtz			FG	FO	MO			Unit has a rough mylonite texture, could be a sheared schist, doesn't hae the same characteristics as the sheared granite mylonites.Foliation is evident with banding. Some quartz bands are fractured and broken showing a slight brecciation or strain on the rock. Unit was probably a biotite feldspar quartz schist but not sure. Most mafics have been altered o clay/sericite and purple secondary biotite. Most feldspars hae been altered to sericite/clays. Unit contains quartz sweats and possibly intrusie looking porphyroclasts. Patchy sections of silicification with quartz replacing the clays and secondary biotite. Minor disseminated pyrite, fine dark sulphides and chalcopyrite present.	ser	BAN	m	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				167.76	169.45	MGR	fds	qtz			FG	EG				Unit is mostly an equigranular microgranite with a few schist xenoliths. A section of the microgranite is foliation near the end of the unit, possibly different microgranite unit. Distinct boundary between the foliated microgranite and equigranular granite and the foliated granite is less altered. Most feldspars have been altered to clay and minor sericite. Minor disseminated pyrite present.	cla	DIS	m	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				169.45	173.59	SCH	qtz	bio			FG	BX	FO			Possible schist/lithology change or could be a different alteration masking the characteristics of the fresher schist encountered earlier in the hole. Unit could be a sheared granite or mylonite or sheared schist. Minor bands and augens/porphyroclasts that look like stretched intrusive rock. Unit is composed of quartz, purple secondary biotite and feldspars. Purple secondary biotite is probably from primary biotite or other. Minor sericite alterationos some feldspars and biotite present. Unit is moderately to strongly silica altered with quartz replacing bands and patches of biotite, feldspars and sericite. Unit is brecciated and fractured with mainly biotite infill between fractures. Minor disseminated pyrite and chalcopyrite. Some pyrite and chalcopyrite seen on selvages of some veins.	qtz	PAT	m	bio	BAN	m	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				173.59	175.19	SCH	bio	qtz			FG	FX	FO			Still within the same schist as above but the silicification has decreased and fracturing has increased. Highly fractured with sericite and other clays along the fractures. Unit contains more secondary purple biotite than the above sections due to less silicification. Minor bands present are silicified. Some biotite has been altered to sericite. Minor disseminated pyrite and chalcopyrite. A few biotite altered garnets present.	bio	BAN	s	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				175.19	175.85	MGR	fds	qtz			FG	EG				Possible microgranite unit composed mainly of feldspar and quartz. Unit is not foliated. Spotty biotite resent along thin wisps with sulphides, could be selvage alteration of discontinuous fractures and veins or flooding from the surrounding schists. Some sericite alteration of the feldspars and selvage. Minor disseminated and fracture filled pyrite and chalcopyrite.	ser	DIS	w	ser	SEL	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	16-Aug-09				175.85	177.46	SCH	bio	qtz			FG	FX	FO			Back into the fractured schist encountered between 173.59m to 175.19m. Along the fractures is clay and sericite and minor biotite. Unit is composed of purple secondary biotite, quartz and feldspars. Minor sericite alteration of some biotite and feldspars. Patchy siliceous replacement of biotite, clays and feldspars. Minor disseminated and fracture filled pyrite. A few rolled garnets resent, sense of movement cannot be determined due to alteration.	bio	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				177.46	177.89	SCH	bio	qtz			FG	BL	FO			Similar unit to above, but silicified. Most of the purple secondary biotite and feldspars have been replaced by silica. Some large feldspar rich sections present. Minor biotite remains along with some sericite alteration of some biotite. Minor disseminated and fracture filled pyrite and chalcopyrite.	qtz	BAN	s	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				177.89	179.72	SCH	bio	qtz			FG	FO	BL			Back into a slightly less altered schist. Unit has some characteristics similar to the fresh biotite feldspar quartz schist encoutered earlier in the hole with felsic and mafic rich bands. Unit is foliated but slightly folded in places. Unit is composed of purple secondary biotite from the alteration of primary biotite. Some sericite alteration of some of the biotite. Some feldspars hae been altered to sericite. Minor silicfication of some bands with quartz replacing biotite, feldspars and sericite. Some primary biotite present. Minor garnets present altered to biotite and stretched. Minor sericite and clay along some fractures. Minor disseminated pyrite and chalcopyrite. Some feldspar rich bands present.	bio	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				179.72	180.74	SCH	bio	qtz			FG	BL				Back into a siliceous schist section similar to the interval from 177.46m to 177.89m. A few microgranite intrusions present.	qtz	PER	s	ser	FFL	w	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				180.74	182.33	SCH	bio	fds			FG	FO				Same schist unit as aboe, but the silcification has decreased. Unit is composed of secondary purple biotite, feldspars and quartz. Unit is banded and moderately foliated with felsic rich bands and mafic bands. Felsic bands are discontinuous and some are stretched. Some remnant fresh looking schist bands remain. Some biotite and feldspars have been altered to sericite. Minor disseminated pyrite mainly in felsic sections.	bio	BAN	m	ser	BAN	m	
Nucleus	GRD09-147	W. Barnes	16-Aug-09				182.33	185.34	BRX	ser	bio				P	Z	SCH	MGR	Mottled up schist breccia unit. Possible microgranite clasts near the middle and end of the interval. Matrix is dominated by milled up schist material composed of purple secondary biotite, sericite and quartz. With clasts being mainly broken schist material 2mm to 10cm. Looks like put the schist through a blender. Towards the end of the unit some fresh schist clasts show up. Pyrite is present in some schist fragments and within the milled up schist matrix.	ser	PAT	m	bio	PAT	m	Matrix and clasts.
Nucleus	GRD09-147	W. Barnes	17-Aug-09				185.34	187.13	SCH	bio	fds			FG	MO				Altered biotite quartz feldspar schist. Foliation is contorted at the start and becomes more regular half way through the interval. Unit starts off with strong secondary biotite alteration and unit becomes silicified down the hole. Secondary biotite decreases down hole and unit looks more like a silicified fresh schist with weak alteration. Minor disseminated and fractured filled pyrite and chalcopyrite. Some minor weak brecciated sections. Unit could be sericite altered down the hole then silicified.	qtz	PER	m	bio	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	17-Aug-09				187.13	189.46	SCH	bio	qtz			FG	FO				More fresh biotite quartz feldspar schist. Unit is well foliaed with 1% garnets altered to biotite. Biotite is partially altered to secondary biotite and minor sericite. Unit is dominated by mafics with few felsic bands andquartz bands and sweats. Some weak silicification. Minor disseminated pyrite and pyrrhotite. Microgranite intrusion present.	bio	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	17-Aug-09				189.46	190.47	MGR	fds	qtz			MG	FO				Foliated microgranite. Unit is mostly composed of feldspars and quartz . Quartz grains are stretched and linetaed in atches. Some feldspar grains are rolled and formed phorphyroblasts/augens. Some sections of silicified schist present. Some feldspars are sericite altered especially as hallows around some veins. Minor disseminated pyrite present.	ser	DIS	w	ser	SEL	tr	
Nucleus	GRD09-147	W. Barnes	17-Aug-09				190.47	196.46	SCH	bio	qtz			FG	FO				Unit is a well foliated partially fresh schist similar to some fresh schist encountered earlier in hole. Unit is composed of biotite, quartz and feldspar with rare garnets (altered to biotite). Unit contains mostly mafic rich bands with minor felsic bands and some pure quartz bands and sweats. Some sections of biotite and feldspars are altered to sericite. Minor biotite is altered to secondary purple biotite. Patchy sections are silicified. Unit contains minor pyrite and trace of chalcopyrite and pyrrhotite disseminated and along fractures. Spotty epidote alteration present. Microgranite dike present.	ser	BAN	w	qtz	BAN	w	
Nucleus	GRD09-147	W. Barnes	17-Aug-09				196.46	197.6	SCH	cla	qtz			FG	FO	BL			Unit is similar to the upper unit just alteration has obliterated most of the original mineral characteristics. All biotite and most feldspars have been altered to a mixture of clays and sericite. Quartz banding and sweats remain. Strong foliation still evident. Spotty dark sulphides and pyrite left in some felsic bands.	cla	BAN	m	ser	BAN	m	
Nucleus	GRD09-147	W. Barnes	17-Aug-09				197.6	198.79	MGR	fds	qtz			FG	BL				Alteration has obliterated some of the original characteristics of the original rock. Unit use to be mostly composed of feldspar with lesser quartz. The feldspars have been altered to clay. Unit is pitted from clay being leached out, some sections unit looks like it was porphyritic. Some quartz grains are stretched and slightly foliated. Minor disseminated oxidized pyrite and pyrite.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	17-Aug-09				198.79	200.29	SCH	cla	qtz			FG	BL	FO			Alteration has obliterated most of the characteristics of the rock. Unit was probably a biotite quartz feldspar schist before alteration. Most of the biotite and feldspars have been altered to a mixture of clays and sericite. Some felsic bands with feldspars remain. Some quartz bands and sweats remain. Spotty biotite seen. Unit contains minor disseminated pyrite and oxidized pyrite. Minor fractured in sections with pyrite infill and vugs.	cla	BAN	s	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	17-Aug-09				200.29	202.92	SCH	bio	qtz			FG	FO	BL			Alteration has obliterated the characteritics of the original rock. Unit was a biotite quartz feldspar schist before alteration. The biotite has been altered to secondary biotite and then sericite. Some secondary biotite remains. Most feldspars have been altered to sericite and other clays. Unit has also been silicified in bands with quartz relacing some biotite and sericite. Some felsic bands and quartz rich bands and sweats reman. Spotty dark sulphides disseminated.	qtz	BAN	m	ser	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	17-Aug-09				202.92	204.03	MGR	fds	qtz			FG	EG				Alteration has masked some of the original characteristics of the rock. Unit was composed mainly of feldspars with lesser quartz. Most of the feldspars have been altered to a mixture of clay and sericite. Unit has a crystalline look,minor foliation/lineation seen at contacts. Unit contains disseminated dark sulphides and pyrite.	cla	DIS	s	ser	DIS	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				204.03	204.59	SCH	bio	qtz			FG	FO	BL			Alteration has masked some of the original characteristics of the rock. Unit was a biotite, quartz feldspar schist before alteration. Most of the biotite and feldspars have been altered to a mixture of sericite and clays. Some felsic rich bands remain. Minor quartz bands and sweats present. Spotty biotite still present. Minor disseminated pyrite.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				204.59	205	MGR	fds	qtz			FG	FO				Similar to the microgranite interval between 202.93m and 204.03m except this unit shows foliation. Most feldspars have been altered to clay with some clay leached out leaving a pitted appearance. Slight foliation seen with quartz grains stretched and lineated. Minor disseminated dark sulphides and pyrite.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				205	209.24	SCH	bio	fds			FG	FX	FO			Altered and fractured schist. Unit was a biotite feldspar quartz schist before alteration. Most of the biotite and feldspars have been altered to clay and sericite mix. Minor purple secondary biotite remains in some bands. Some biotite and clay altered garnets present showing right lateral/dextral movement. Unit contains quartz rich and some minor feldspar felsic bands and sweats paallel to foliation. Foliation is random in some sections due to fractures and slight brecciation. Most fractures are filled with clay. Minor disseminated pyrite and dark sulphides.	cla	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				209.24	221.89	SCH	bio	qtz			FG	FO				Biotite quartz feldspar schist with garnets. Ganets are altered to clay and biotite and show mostly a right lateral movement/dextral with a spot few showing left lateral movement/sinistral. Some sections of the schist look like the fresh grey schist encoutered earlier in the hole with some silicification. Some secondary purple alteration of the biotite present in bands. Increasing sericite alteration of some biotite and feldspars down the hole. Some patchy silicification of some sericite altered sections present down the hole. Felsic and mafic banding present. Quartz rich bands and sweats present following foliation with spotty pyrite. Unit contains minor disseminated pyrite. There are many small microgranite units present.	ser	BAN	m	bio	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	18-Aug-09				221.89	224.53	SCH	bio	fds			FG	MO	FX			Alteration and fractures have destroyed some of the characteristics of the rock. Unit is similar to the upper unit with garnets and original composition. Unit has a mild tiger stripe look due to the alteration, similar around other skarn holes. The biotite has been altered to seconday purple biotite and sericite and some then silcified. Some feldspars have been altered to sericite and some then replaced by silica. Unit is fairly fractured with quartz, biotite, sericite and sulphides infilling them. Dolomite or ankerite is filling some fractures with a slight fizz with HCL. Fractures are at a random orientation. Minor disseminated pyrite, chalcopyrite and pyrrhotite. Foliation is slightly contorted due to fractures and a couple of microgranite dikes.	qtz	PAT	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				224.53	224.84	MGR	fds	qtz		2	FG	FO				Tan colour foliated microgranite unit. Unit is mostly composed of feldspar and quartz. Quartz grains and some feldspar grains are stretched and lineated. Some feldspars are altered to sericite giving the tan colour possibly. Unit looks to contain relict feldspar phenocrysts that are now rolled and are porphyroblasts. Some minor disseminated pyrite. Unit runs through half the core with schist on the other half.	ser	DIS	w				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				224.84	225.45	SCH	bio	fds			FG	FO				Alteration has destroyed some of the characteristics of the rock. Unit was a biotite feldspar quartz schist that was well foliated. Most of the biotite and feldspars have been altered to sericite and other clays giving the rock a yellow green colour. Unit starts off biotite rich then transitions into the sericite and clay alteration. Some minor fine disseminated pyrite present. Small sulphide rich mineralized skarn section from 225.27m to 225.45m with massive quartz replacement or vein and massive boxwork pyrite with vugs and minor chalcopyrite. Lare quartz grains present.	ser	BAN	m	cla	BAN	m	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				225.45	226.39	MGR	fds	qtz			FG	FO				Similar to the other recent microgranites around this interval. Most feldspars have been altered to clay. Quartz grains appear stretched and lneated showing a rough foliation. Some clays have been leached leaving a pitted apearance. Minor silcification of the unit at the contacts with the mineralized skarn. Minor disseminated pyrite and fine dark sulphides throughout the unit. Stronger pyrite at the contacts with the mineralized skarn.	cla	DIS	s	qtz	SEL	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				226.39	226.77	MSK	qtz				CG	MA				Another typical mineralized skarn zone. Unit starts in massive boxwork pyrite with vugs and chalcopyrite and pyrrhotite. The transition into the massive pyrrhotite rich zone with blebs of chalcopyrite and chalcopyrite rimming quartz and pyrrhotite. Quartz crystals present are mostly euhedral and coarse to very coarse grained.	qtz	DIS	w				

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	18-Aug-09				226.77	227.87	MSK	qtz	cla			MG	VU				Still in the mineralized skarn unit, just without the massive sulphide sections. Unit is composed of quartz with minor clays and chlorite. Quartz and chlorite could be replacing amphiboles from an amphibolite unit. Unit contains slightly banded and boxwork pyrite and blebs. Unit also contains minor banded and blebby pyrrhotite and blebby chalcopyrite. Chalcopyrite is rimming quartz, pyrite and pyrrhotite grains. Vugs are present within quartz and pyrite sections. Unit starts with a small Felsic intrusive dike that is clay altetered and contains pyrite and minor chalcopyrite disseminated. Slightly translucent blue flakey mineral present within the vugs.	cla	DIS	w	chl	PAT	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				227.87	228.35	MSK	qtz				VC					More mineralized skarn. Unit is mostly composed of very coarse grained crystals with blebs and slighly banded pyrrhotite, blebs of chalcopyrite and pyrite. Some chalcopyrite is riming quartz, pyrite and pyrrhotite grains.	qtz	DIS	w				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				228.35	228.78	MGR	fds	qtz			MG	EG				Typical microgranite composed of feldspar and quartz. Most of the feldspars are clay altered. Slight lineation of quartz grains but at random orientations. Unit contains disseminated and blebby pyrite and pyrrhotite with larger concentrations at the contacts with the mineralized skarns.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				228.78	230.13	MSK	qtz				VC					Another coarsely crystalline quartz unit with blebs of and massive sections of pyrrhotite and minor blebs of pyrite and chalcopyrite.	qtz	DIS	w				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				230.13	230.53	MSK	qtz				VC					Similar to the above unit just with minor pyrrhotite and mostly pyrite blebs. Minor vugs associated with the pyrite. Minor blebs of pyrrhotite. Minor banding seen with the sulphides.	qtz	DIS	w				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				230.53	232.9	MSK	qtz	chl			VC					This section of the mineralized skarn is a mixture of crystalline quartz with blebs of pyrrhotite and pyrite with sections of massive pyrrhotite. Blebs of chalcopyrite present and chalcopyrite rimming quartz and pyrrhotite and pyrite grains. A couple of sections with medium to fine grained chlorite could be sections of altered amphibolite or another mafic unit. One small clay rich blob could be a piece of remnant intrusive.	qtz	DIS	w	chl	PAT	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				232.9	233.34	MSK	qtz				FG					Unit is dominated by massive quartz sections with some roghly banded pyrite with minor chalcopyrite. Quartz looks to have replaced something fine grained or unit is just a fine grained quartz unit. Spotty clay present. Minor boxwork pyrite associated with the pyrite rich sections. Spotty pyrrhotite present. Minor transucent blue flakey mineral soft within some vugs.	qtz	PAT	m	cla	DIS	tr	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				233.34	233.74	MSK	cla	qtz			FG	MO				Section skarn is different from the others it is composed of clay altered sections and lesser quartz patches with pyrite blebs. Unit could have been an altered intrusive or endoskarn or just heavily altered intrusive. Minor feldspar crystals seen with most altered to clay.	cla	PAT	m	qtz	PAT	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	18-Aug-09				233.74	234.5	MSK	qtz	cla			FG	MO				Sections is split between a quartz section with sulphides and clay and quartz section with sulphides. The clay section could be a remnant intrusive that is altered. The quartz sections just could be silica altered clay or a vein. Some clay/sericite patches are present in the quartz section. Unit is mostly mineralized with pyrite with blebs and boxwork pyrite. Minor vugs associated with the boxwork pyrite. Minor chalcopyrite present. Translucent flakely blue mineral within the vugs. Minor banding of the pyrite towards the end of the unit.	cla	PAT	m	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				234.5	238.21	SCH	bio	qtz			FG	FO				Back into an altered well foliated biotite quartz feldspar schist. Unit has strong foliation with mafic and felsic bands. Minor sections look like the fresh schist encountered earlier in the hole. Some biotite has been altered to sericite and minor secondary purple biotite. Some bands of biotite and sericite have been silicified. Some feldspars have been altered to sericite. Minor disseminated pyrite and chalcopyrite present. A few microgranite intrusions present following foliation. Unit is highly fractured and veined at the start and decreases down the hole.	qtz	PAT	m	ser	PAT	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				238.21	239.03	MGR	fds	qtz			FG	FO				Another foliated microgranite unit. Unit was composed mostly of feldspars and quartz. Most feldspars have been altered to clay. Quartz grains and remnant feldspar shapes are stretched forming a foliation. Some feldspars are rolled and formed porphyroblasts.Minor disseminated pyrite. A couple of small schist sections present.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	18-Aug-09				239.03	241.03	SCH	bio	qtz			FG	FO				Unit is similar to the schist unit before the microgranite unit. Unit was a biotite quartz feldspar schist before alteration. Most biotite and feldspars have been altered to sericite and other clays. Spotty silicification of some bands. Some minor disseminated pyrite. A few small microgranite intrusions parallel to foliation. Minor breccia present.	ser	BAN	m	cla	BAN	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				241.03	249.26	SCH	bio	qtz			FG	FO				Randomly altered biotite quartz feldspar schist. This unit is a mixed bag. Unit is mostly a biotite quartz feldspar schist that is well foliated with rare garnets altered to biotite showing right lateral movement. Some of the biotite is secondary purple, some biotite is altered to sericite and chlorite. Some minor amphiboles present altered to chlorite. Some feldspars have been altered to sericite and clay. Some sections look like the fresh schist encountered earlier in the hole. Patchy silicification of the unit throughout. Minor disseminated and fracture filled pyrite and chalcopyrite. Spotty hematite associated with spotty epidote and sericite.	qtz	BAN	m	ser	BAN	w	
Nucleus	GRD09-147	W. Barnes	18-Aug-09				249.26	251.03	SCH	bio	grt			FG	FX	FO			Similar schist as above with a variety of alteration. Unit is highly fractured with chlorite, biotite, quartz and sulphides infilling the fractures. No real orientation of the fractures. Minor garnets present altered to biotite. Most biotite has been altered to secondary biotite and sericite. Minor biotite is altered to chlorite. Some feldspars have been altered to sericite. Spotty epidote alteration present. Foliation is is still good with the fracturing. Part of the unit has been silicified. Minor disseminated pyrite mainly around fractures and veins. Minor microgranite unit present.	qtz	PAT	w	ser	PAT	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	19-Aug-08				251.03	251.9	MGR	fds	qtz			MG	EG				Altered granite with most of the feldspars altered to clay and primary quartz remaining. Some clays have been leached out leaving a pitted appearance. Unit is not foliated like some other microgranite units enountered in the hole. Minor disseminated pyrite.	cla	DIS	s				
Nucleus	GRD09-147	W. Barnes	19-Aug-08				251.9	254.56	SCH	bio	grt			FG	FO	BL			Fairly altered biotite quartz feldspar schist with minor garnets. Most of the biotite has been altered to a mixture of sericite and clays and purple secondary biotite in separate bands. Some feldspars have been altered to a mixture of clays and sericite. Garnets seem to be altered to biotite and clay. Patchy silcified bands of sericite and clay altered sections. Minor siliceous halo around some veins. A small microgranite section present subparallel to foliation. Quartz bands and sweats remain. Some garnets show rolling in a left lateral direction. Minor disseminated pyrite.	cla	BAN	m	bio	BAN	w	
Nucleus	GRD09-147	W. Barnes	19-Aug-08				254.56	256.38	MGR	fds	qtz			CG	FO				Unit is a well foliated microgranite composed of feldspar and quartz with no mafics. Quartz and feldspars grains are stretched to form the foliation. Unit contains many porphyroblasts of feldspars. Minor clay alteration of some feldspars. Minor disseminated pyrite. Towards the end of the unit art of the microgranite looks more crystalline and could be another intrusion or just a portion of the same unit not sheared.	cla	DIS	w				
Nucleus	GRD09-147	W. Barnes	19-Aug-08				256.38	256.8	UNK	fds	qtz			FG	MY				Unsure what this unit is. Unit does have a faint mylonitic texture and could be a differently sheared section of a microgranite or other unit. There is a faint foliation seen and is in between two coarse grained foliated microgranite units. Unit is composed of feldspar, quartz, biotite, chlorite and minor sericite. Biotite and chlorite are secondary giving the unit a patchy green and purple colour. Unit looks to have a slight granitic look, possibly and altered diorite. Sharp contacts with the upper and lower sections. Disseminated pyrite and chalcopyrite present. Small foliated microgranite bleb present but is not part of this unit. Minor chlorite halo around some veins.	bio	DIS	w	chl	DIS	w	
Nucleus	GRD09-147	W. Barnes	19-Aug-08				256.8	258.14	MGR	fds	qtz			CG	FO				Unit is similar to the coarse grained foliated microgranite between 254.56m to 256.38m. Minor chlorite alteration halo around some veins.	cla	DIS	tr	chl	SEL	tr	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				258.14	263.12	SCH	bio	grt			FG	FO				Well foliated biotite quartz schist with minor feldspars and garnets. Garnets are altered to biotite and rolled with a dextral sense. Unit could be an ultramylonite as some bands look intrusiive. Biotie present is mostly secondary from alteration of primary biotite. Some biotite and feldspars have been altered to sericite. Patchy silicfication of bands mostly with a green hue, possibly silicified sericite and possible chlorite. Some silicified biotite. Minor pyrite disseminated and on fractures. A few microgranites present and a shist breccia section.	bio	BAN	m	qtz	BAN	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				263.12	266.34	SCH	bio	qtz			FG	BL	FO			Unit is an altered version of the biotite quartz schist above. Minor secondary biotite remains, but most of the biotite and feldspars have been altered to sericite and other clays. Some of the sericite and clay sections have been replaced by silica. A few small breccias and microgranite sections present. Minor disseminated pyrite and dark sulphides.	qtz	BAN	m	ser	BAN	w	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	20-Aug-09				266.34	266.7	MGR	fds	qtz			FG	FO				Another altered foliated microgranite. Unit was mostly composed of feldspar and quartz. Most of the feldspars have been altered to clay. Quartz and relict feldspar grains appear strteched and lineated. Some feldspars are forming small porphyrolasts. Minor disseminated pyrite and fine dak sulphides.	cla	DIS	m				
Nucleus	GRD09-147	W. Barnes	20-Aug-09				266.7	267.97	UNK	bio	qtz			FG	FO	MY			Unit is a foliated schist that the foliation is slightly contorted and unit is moderately fractured. Unit has a mylonitic texture to it with quartz and felsic bands and grains within a biotite matrix. The felsic and quartz bands appear stretched into sweats. Biotite present is purple and secondary. Some clay alteration of some bioite and feldspars. Minor disseminated pyrite. Minor siliceous halo around some veins and fractures.	bio	BAN	m	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				267.97	274.57	SCH	bio	qtz			FG	FO				Back into a well foliated schist with quite a few foliated microgranites. Section is about 75% schist and 25% microgranite. Unit is a biotite quartz feldspars schist with no garnets. The biotite present is purple and secondary. Some biotite and feldspars have been altered to clay/sericite. Some sections of biotite and clay have been silicified to a grey colour. Minor disseminated pyrite and chalcopyrite seen mainly within the silicified sections. From 269.75m to 272.8m the core was dropped down the hole at the drill and redrilled.	qtz	BAN	m	bio	BAN	m	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				274.57	275.36	BRX	cla	qtz				P	C	SCH	MGR	Unit is mostly composed of schist sections and clasts with minor microgranite sections. Some minor feldspar porphyry clasts present. Clast size ranges from 2mm to 7cm and are subrounded to subangular. Sections is clast supported. Matrix and fractures are filled mainly with clay and lesser quartz and minor sulphides. Some clasts contains minor disseminated pyrite . Most clasts are clay altered.	cla	PAT	s	qtz	PAT	w	Alteration of the clasts.
Nucleus	GRD09-147	W. Barnes	20-Aug-09				275.36	277.05	SCH	cla	qtz			FG	FO	FX			Back into a schist unit that is moderately fractured from the breccia above. Some minor microgranite sections present. The unit may have been a biotite quartz feldspar schist before alteration. Unit is dominated by clay alteration with minor sections being silcified. Fractures are mostly infilled with clay. Some minor disseminated pyrite.	cla	PAT	s	qtz	PAT	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				277.05	278.56	MGR	fds	qtz			FG	EG				Typical non foliated microgranite. Unit was composed of feldspar and quartz. Most feldspars are altered to clay. Slight lineation of quartz grains, but looks magmatic. Minor disseminated pyrite and fine dark sulphides.	cla	DIS	s	qtz	SEL	tr	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				278.56	284.47	UNK	bio	qtz			FG	FO				Back into a well foliated schist or ultramylonite with a few microgranite sections following foliation. Unit is like some of the most recent schists/mylonites encountered in the hole. Unit was composed of secondary purple biotite, quartz and minor feldspars. No garnets seen. Some biotite and feldspars have been altered to a mixture of clays with some clays then silicified. Spotty epidote alteration present. Some silicification was associated with some fractures and veins. Minor disseminated pyrite with some located mainly near veins. Towards the lower end of the unite the core becomes broken and the rock becomes fractured.	qtz	PAT	m	bio	PAT	m	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	20-Aug-09				284.47	285.78	MGR	fds	qtz			FG	EG				Unit is composed of several microgranite intervals separated by minor schist intervals similar to the schist in the above unit. Unit is about 70% microgranite and 30% schist. Microgranite are composed of feldspars and quartz with most of the feldspars altered to clay. Slight lineation of some quartz grains but magmatic. Minor disseminated pyrite and fine dark sulphides.	cla	DIS	s	qtz	SEL	tr	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				285.78	286.2	BRX	qtz	cla				P	S	SCH	MGR	Brecciated unit composed of mostly schist clasts and minor microgranite clasts. Clasts range in size from 2mm to 10cm and are subrounded. Mostly clast supported with minor matrix supported. Matrix is mostly composed of quartz with minor clay and sulphides.	cla	PAT	m				Alteration of clasts.
Nucleus	GRD09-147	W. Barnes	20-Aug-09				286.2	287.32	SCH	bio	grt			FG	FO	BL			Altered schist unit that starts off bleached and fairly fractured due to contact with upper breccia zone. Unit was a biotite quartz feldspar schist. Most of the biotite and feldspars have been altered to clay with minor silcification at the start and alteration decreases down the hole with purple secondary biotite increasing. Unit has a mylonitic look. Spotty disseminated pyrite. Rare biotite altered garnets present.	cla	PAT	m	bio	PAT	m	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				287.32	287.97	MGR	fds	qtz			FG	FO				Typical foliated microgranite. Unit is composed mainly of feldspar and quartz. Most of the quartz grains have been stretched and lineated. Some feldspars have been stretched, some are rolled porphryoblasts. Minor sericite alteration of some feldspars. Minor siliceous halo around some veins.Some minor disseminated dark sulphides.	ser	DIS	w	qtz	SEL	tr	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				287.97	291.55	SCH	bio	grt			FG	FO				Back into a well foliated schist composed of biotite quartz and feldspars. Unit could be a Mylonite or Ultramylonite. Minor garnets present altered to biotite. The biotite present is purlple in colour and secondary. Minor clay alteration of some biotite and feldspars. Patchy silicification of some bands. Minor chlorite halo around some veins. Minor disseminated pyrite and pyrite on fractures.	bio	BAN	m	qtz	BAN	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				291.55	292.91	UNK	bio	fds			MG	MY	FX			Unit has the look of a mylonitic unit seen in some holes. Unit is composed of quartz and feldspar grains wrapped by secondary purple biotite. Unit could be a sheared granite or schist unit. Some feldspar and quartz grains are stretched. Unit is fairly fractured with clay alteration infill and surrounding them. Minor disseminated pyrite present and on fractures.	bio	DIS	m	cla	PAT	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				292.91	293.22	FAU	cla	bio			FG					Faulted schist or mylonite. No real gougy sections just highly fractured and the rock is broken down to clays and biotite and quartz. The feldspars and some biotite has broken down to clay.	cla	DIS	s	bio	DIS	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				293.22	297.25	UNK	bio	qtz			FG	FO	MY			Back into a foliated schist or mylonite. Some sections look like a schist and some sections have a look of a protomylonite with some felsic bands that have a rough intrusive texture. Unit is composed of secondary purple biotite and feldspars and quartz. Minor clay alteration around some fractures and faults. Some sections are bleached and siliceous. Minor disseminated pyrite and chalcopyrite.	qtz	PAT	m	bio	BAN	m	

Dataset	Hole_ID	Logged_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-147	W. Barnes	20-Aug-09				297.25	298.5	MGR	fds	qtz			MG	FO				Unit is a foliated microgranite with a fresh younger bleached microgranite cutting it. Unit is sheared and is composed mainly of feldspars and minor quartz with minor secondary biotite. Unit could be on its way to becoming a mylonite. Unit could have been a sheared granite as well as the biotite looks to be replacing some possible amphiboles. Some feldspar and quartz grains are weakly stretched. The fresh microranite is crytalline and fresh with minor silicification. Minor disseminated pyrite present.	cla	DIS	w	bio	DIS	w	
Nucleus	GRD09-147	W. Barnes	20-Aug-09				298.5	303.28	UNK	cla	qtz			FG	FO				Unit starts as an altered schist with secondary purple biotite and some clay alteration of some feldspars. The unit then transitions into a blue/grey schist with clays/sericite/muscovite and quartz and minor feldspars. Possible to separate unit but gradational. Minor disseminated and fracture filled pyrite and chalcopyrite. A few microgranite dikes present.	cla	BAN	s	bio	BAN	w	

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-147	1.67	2.74	pyr	0.2				hem	0.2	
GRD09-147	2.74	4.25	pyr	0.1			0.01	hem	0.4	
GRD09-147	4.25	5.13						hem	0.2	
GRD09-147	5.13	7.22						hem	0.1	
GRD09-147	7.22	9.49						hem	0.1	
GRD09-147	9.49	11.78						hem	0.1	
GRD09-147	11.78	13.89	pyr	0.01				hem	0.1	
GRD09-147	13.89	17.37	pyr	0.05				hem	0.3	
GRD09-147	17.37	21.02	pyr	0.01				hem	0.1	
GRD09-147	21.02	21.97	pyr	0.01				sox	0.1	
GRD09-147	21.97	22.71						hem	0.2	
GRD09-147	22.71	23.45						sox	0.1	
GRD09-147	23.45	25.38						sox	0.01	
GRD09-147	25.38	27.08						hem	0.05	
GRD09-147	27.08	27.49						hem	0.05	
GRD09-147	27.49	33						hem	0.2	
GRD09-147	33	34.84						hem	0.01	
GRD09-147	34.84	35.64						hem	0.2	
GRD09-147	35.64	36.31	pyr	0.01				hem	0.05	
GRD09-147	36.31	39.02	pyr	0.05				hem	0.05	
GRD09-147	39.02	39.3	pyr	1			0.01	sox	2	
GRD09-147	39.3	39.48	pyr	0.01						
GRD09-147	39.48	40.17	pyr	0.1				hem	0.1	
GRD09-147	40.17	41.29						hem	1	Minor oxidized dark sulphides within the small mirogranite dike.
GRD09-147	41.29	43.81	pyr	0.1		0.01		hem	0.05	
GRD09-147	43.81	45.52	pyx	0.01				hem	0.4	
GRD09-147	45.52	48.03						hem	5	
GRD09-147	48.03	48.64	pyr	0.5						
GRD09-147	48.64	49.19						hem	0.1	
GRD09-147	49.19	49.57						hem	5	
GRD09-147	49.57	49.96						hem	3	
GRD09-147	49.96	50.38						sox	0.01	
GRD09-147	50.38	51.02	pyr	2.5				hem	0.05	
GRD09-147	51.02	52.67	pyr	1			0.01	sox	0.3	
GRD09-147	52.67	54.57	pyr	2	0.01		0.01	sox	0.5	
GRD09-147	54.57	59.89	pyr	1			0.01	sox	0.5	
GRD09-147	59.89	64.34	pyr	3	0.01			sox	0.5	
GRD09-147	64.34	69.9	pyr	4				sox	0.5	
GRD09-147	69.9	70.53	pyr	3				pyx	2	Trace of bornite.
GRD09-147	70.53	77.24	pyx	5				pyr	3	
GRD09-147	77.24	79.82	pyx	0.01				hem	2	
GRD09-147	79.82	80.94	pyx	0.01				sox	0.05	
GRD09-147	80.94	84.56	pyr	2	0.01			pyx	2	
GRD09-147	84.56	91.63	pyr	0.1				hem	0.1	
GRD09-147	91.63	93.03						sox	0.3	
GRD09-147	93.03	93.82						sox	0.1	
GRD09-147	93.82	94.18	pyr	0.05				sox	0.1	
GRD09-147	94.18	96.13	pyr	0.01						
GRD09-147	96.13	98.24	pyr	0.01						
GRD09-147	98.24	98.78						sox	0.01	
GRD09-147	98.78	99.74						sox	0.01	
GRD09-147	99.74	100.64						sox	0.01	
GRD09-147	100.64	101.93	pyr	0.01				sox	0.01	
GRD09-147	101.93	102.61	pyr	0.01				sul	0.1	
GRD09-147	102.61	103.57						sul	0.01	
GRD09-147	103.57	106.97	pyr	0.01				sul	0.01	
GRD09-147	106.97	107.92	pyr	0.1						
GRD09-147	107.92	110.03	pyr	0.01				sul	0.01	
GRD09-147	110.03	111.08						sul	0.01	
GRD09-147	111.08	111.86	pyr	0.01				sul	0.05	
GRD09-147	111.86	115.57	pyr	0.05				sul	0.1	
GRD09-147	115.57	117.94						sul	0.01	
GRD09-147	117.94	124.87	pyr	0.1	0.01			hem	0.05	
GRD09-147	124.87	125.85	pyr	0.05	0.01			hem	0.01	

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-147	125.85	132.28	pyr	0.2						
GRD09-147	132.28	135.54	pyr	0.05						
GRD09-147	135.54	136.33	pyr	0.01						
GRD09-147	136.33	136.73	pyr	0.1				sul	0.2	
GRD09-147	136.73	137.25						hem	0.05	
GRD09-147	137.25	138.02	pyr	0.5						
GRD09-147	138.02	139.01	pyr	0.1				sul	0.3	
GRD09-147	139.01	140.34	pyr	2	0.01					
GRD09-147	140.34	140.71	pyr	0.5				sul	1	
GRD09-147	140.71	141.22	pyr	0.05				sul	0.2	
GRD09-147	141.22	144.65	pyr	0.2	0.01					
GRD09-147	144.65	145.59	pyr	0.05				sul	0.5	
GRD09-147	145.59	146.1	pyr	0.05				sul	0.2	
GRD09-147	146.1	146.57	pyr	0.2				sul	0.3	
GRD09-147	146.57	148.9	pyr	0.1				sul	0.2	
GRD09-147	148.9	150.32	pyr	3				sul	0.1	
GRD09-147	150.32	151.18	pyr	25	0.1		0.01	sul	10	Mineralization of matrix and clasts.
GRD09-147	151.18	154.01	pyr	4				sul	2	Within schist material.
GRD09-147	154.01	155.43	pyr	0.2						
GRD09-147	155.43	158.29	pyr	0.5				sul	0.3	
GRD09-147	158.29	160.02	pyr	0.1				sul	0.1	
GRD09-147	160.02	160.72	pyr	0.1				sul	0.1	
GRD09-147	160.72	161.8						sul	0.01	
GRD09-147	161.8	163.49	pyr	0.1	0.01					
GRD09-147	163.49	167.76	pyr	0.5	0.01			sul	0.5	
GRD09-147	167.76	169.45	pyr	0.5				sul	0.5	
GRD09-147	169.45	173.59	pyr	1	0.1					
GRD09-147	173.59	175.19	pyr	0.2	0.01					
GRD09-147	175.19	175.85	pyr	1	0.1					
GRD09-147	175.85	177.46	pyr	0.05						
GRD09-147	177.46	177.89	pyr	0.1	0.01					
GRD09-147	177.89	179.72	pyr	0.1	0.01					
GRD09-147	179.72	180.74	pyr	0.05						
GRD09-147	180.74	182.33	pyr	0.01						
GRD09-147	182.33	185.34	pyr	0.1						
GRD09-147	185.34	187.13	pyr	1	0.01	0.01				
GRD09-147	187.13	189.46	pyr	0.1		0.01				
GRD09-147	189.46	190.47	pyr	0.01						
GRD09-147	190.47	196.46	pyr	0.3	0.01	0.01				
GRD09-147	196.46	197.6	pyr	0.01				sul	0.01	
GRD09-147	197.6	198.79	pyr	0.2				pyx	0.3	
GRD09-147	198.79	200.29	pyr	0.01				sul	0.1	
GRD09-147	200.29	202.92						sul	0.01	
GRD09-147	202.92	204.03	pyr	1				sul	1.5	
GRD09-147	204.03	204.59	pyr	0.1						
GRD09-147	204.59	205	pyr	0.2				sul	0.5	
GRD09-147	205	209.24	pyr	0.1				sul	0.2	
GRD09-147	209.24	221.89	pyr	0.1						
GRD09-147	221.89	224.53	pyr	0.5	0.05	0.2				
GRD09-147	224.53	224.84	pyr	0.1						
GRD09-147	224.84	225.27	pyr	0.3						
GRD09-147	225.27	225.45	bpy	50	1					
GRD09-147	225.45	225.62	pyr	10	0.1					
GRD09-147	225.62	226.39	pyr	1				sul	3	
GRD09-147	226.39	226.77	pyr	3	1.5	70				
GRD09-147	226.77	227.87	pyr	20	2	25		nau	0.01	
GRD09-147	227.87	228.35	pyr	10	2.5	30				
GRD09-147	228.35	228.78	pyr	1	0.1	5				
GRD09-147	228.78	230.13	pyr	3	2.5	40				
GRD09-147	230.13	230.53	pyr	30	1	7				
GRD09-147	230.53	232.9	pyr	3	3	50				
GRD09-147	232.9	233.34	pyr	15	1	0.1				
GRD09-147	233.34	233.74	pyr	30	1					
GRD09-147	233.74	234.5	pyr	25	0.5					
GRD09-147	234.5	238.21	pyr	0.5	0.1					
GRD09-147	238.21	239.03	pyr	1						

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-147	239.03	241.03	pyr	0.3						
GRD09-147	241.03	249.26	pyr	0.3	0.01			hem	0.01	
GRD09-147	249.26	251.03	pyr	0.5	0.01					
GRD09-147	251.03	251.9	pyr	1						
GRD09-147	251.9	254.56	pyr	0.2						
GRD09-147	254.56	256.38	pyr	0.1						
GRD09-147	256.38	256.8	pyr	2	0.05					
GRD09-147	256.8	258.14	pyr	0.3	0.01					
GRD09-147	258.14	263.12	pyr	0.2						
GRD09-147	263.12	266.34	pyr	0.1				sul	0.2	
GRD09-147	266.34	266.7	pyr	0.1				sul	0.1	
GRD09-147	266.7	267.97	pyr	0.01						
GRD09-147	267.97	274.57	pyr	0.2	0.01					
GRD09-147	274.57	275.36	pyr	0.1						Disseminated within the clasts.
GRD09-147	275.36	277.05	pyr	0.01						
GRD09-147	277.05	278.56	pyr	0.4				sul	0.6	
GRD09-147	278.56	284.47	pyr	0.2						
GRD09-147	284.47	285.78	pyr	0.4				sul	0.6	
GRD09-147	285.78	286.2	pyr	0.2						Sulphides within clasts.
GRD09-147	286.2	287.32	pyr	0.01						
GRD09-147	287.32	287.97						sul	0.01	
GRD09-147	287.97	291.55	pyr	0.2						
GRD09-147	291.55	292.91	pyr	0.2	0.01					
GRD09-147	292.91	293.22	pyr	0.01						
GRD09-147	293.22	297.25	pyr	0.2	0.01					
GRD09-147	297.25	298.5	pyr	0.1						
GRD09-147	298.5	303.28	pyr	0.1	0.01					

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-147	1.67	2.74	65										
GRD09-147	2.74	4.25	65										
GRD09-147	5.08	5.13					FAU		65				
GRD09-147	5.13	7.05	60										
GRD09-147	7.05	7.22					BRX						
GRD09-147	7.22	9.49					FRC						
GRD09-147	9.49	11.779	63										
GRD09-147	11.779	11.78					CTC	MGR-SCH	50				
GRD09-147	11.78	13.89	60										
GRD09-147	13.89	17.37	60										
GRD09-147	17.37	21.02	70										
GRD09-147	21.02	21.97	60										
GRD09-147	21.97	22.71	50										
GRD09-147	22.71	22.711					CTC	SCH-MGR	47				
GRD09-147	23.449	23.45					CTC	MGR-SCH	50				
GRD09-147	23.45	24.38	55										
GRD09-147	24.38	24.77	60	135	158	22							165/13 Brunton.
GRD09-147	24.77	25.38	60										
GRD09-147	25.38	27.08	52										
GRD09-147	27.08	27.081					CTC	SCH-MGR	50				
GRD09-147	27.489	27.49					CTC	MGR-SCH					Uneven contact.
GRD09-147	27.49	30.96	60										
GRD09-147	30.96	31.15					DYK	MGR	45				
GRD09-147	31.15	31.39	48										
GRD09-147	31.39	31.42					DYK	MGR					Bleb in half the core.
GRD09-147	31.42	31.51	50										
GRD09-147	31.51	31.61					DYK	MGR	59				
GRD09-147	31.61	33	45										
GRD09-147	33	33.46	45										
GRD09-147	33.46	33.49					BRX		50				
GRD09-147	33.49	34.84	50										
GRD09-147	34.84	36.31	45										
GRD09-147	36.31	39.02	40										
GRD09-147	39.02	39.021					CTC	AMP-GRA	30				
GRD09-147	39.299	39.3					CTC	GRA-AMP	50				
GRD09-147	39.3	39.48	50										
GRD09-147	39.48	39.481					CTC	AMP-AMP	60				
GRD09-147	40.79	40.87					DYK	MGR	40				
GRD09-147	42.46	42.58					DYK	GRN	20				
GRD09-147	45.04	45.52					SHR		58	85	138	45	154/43 Brunton.
GRD09-147	46.35	46.46					BRX		40				
GRD09-147	48.03	48.64					SHR		65				
GRD09-147	49.19	49.191					CTC	AMP-SCH	70				Possible contact, masked by alteration and oxidation.
GRD09-147	49.191	49.57	65										
GRD09-147	49.57	49.571					CTC	SCH-GRN	50				
GRD09-147	49.571	49.84					CTC	GRN-BRX	50				
GRD09-147	49.84	49.96					BRX		50				
GRD09-147	49.96	49.961					CTC	BRX-QFP	45				
GRD09-147	50.379	50.38					CTC	QFP-SCH	50				
GRD09-147	50.38	51.82	50										
GRD09-147	51.82	52.67	70	56	114	45							115/53 Brunton.
GRD09-147	52.67	52.671					CTC	SCH-MGR	60	50	118	55	
GRD09-147	54.569	54.57					CTC	MGR-SCH	70	245	49	28	
GRD09-147	54.57	55.49	58	142	166	20							173/25 Brunton.
GRD09-147	55.49	55.63					DYK	MGR	60	90	138	42	
GRD09-147	55.63	59.89	45										
GRD09-147	59.89	59.891					CTC	SCH-QFP	40				
GRD09-147	69.899	69.9					CTC	QFP-SCH	38	60	134	77	
GRD09-147	69.9	70.53	37	150	200	25							190/30 Brunton.
GRD09-147	70.53	70.531					CTC	SCH-QFP	55	200	30	13	
GRD09-147	77.239	77.24					CTC	QFP-BRX	40				
GRD09-147	77.24	79.82					BRX		34	60	137	81	
GRD09-147	84.559	84.56					CTC	QFP-SCH	25				
GRD09-147	84.56	86.97	36										
GRD09-147	86.97	88.81	70										
GRD09-147	88.81	88.97					DYK	MGR	60				
GRD09-147	88.97	91.4	85										
GRD09-147	91.4	91.44					DYK	MGR	80				
GRD09-147	91.44	91.63	80										
GRD09-147	91.63	91.631					CTC	SCH-MGR	60				
GRD09-147	93.029	93.03					CTC	MGR-SCH	60				
GRD09-147	93.03	93.15	70										
GRD09-147	93.15	93.47					DYK	MGR	70				
GRD09-147	93.47	93.82	60										
GRD09-147	93.82	93.821					CTC	SCH-MGR	75				

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-147	94.179	94.18					CTC	MGR-SCH	65				
GRD09-147	94.18	96.13					BRX						
GRD09-147	96.13	96.71	70										
GRD09-147	96.71	96.74					DYK	MGR	65				
GRD09-147	96.74	96.9	70										
GRD09-147	96.9	97.1					DYK	MGR	65				
GRD09-147	97.1	98.24	80										
GRD09-147	101.929	101.931					CTC	FIN-BRX	15				
GRD09-147	101.931	102.61					BRX						
GRD09-147	102.61	102.611					CTC	BRX-MGR	40				
GRD09-147	103.32	103.569	45										
GRD09-147	103.569	103.57					CTC	MGR-SCH	40				
GRD09-147	103.57	104.15	80										
GRD09-147	104.15	104.32					BRX		30				
GRD09-147	104.32	106.97	65										
GRD09-147	106.97	107.92					BRX						
GRD09-147	107.92	110.03					BRX						
GRD09-147	111.079	111.08					CTC	MGR-BRX	50				
GRD09-147	111.08	111.86					BRX		30				
GRD09-147	111.86	114.49	45										
GRD09-147	114.49	114.77					DYK	MGR	30				
GRD09-147	114.77	115.57	50										
GRD09-147	115.57	117.94					FRC		50				
GRD09-147	117.94	121.48	30										
GRD09-147	121.48	121.62					BRX		25				
GRD09-147	121.62	124.87	45										
GRD09-147	125.35	125.42					BRX						
GRD09-147	125.42	132.28	50										
GRD09-147	132.28	134.12	50										
GRD09-147	134.12	135.03	80										
GRD09-147	135.03	135.15					DYK	MGR					Uneven contacts
GRD09-147	135.15	135.54	40										
GRD09-147	135.54	136.33					FAU		50				
GRD09-147	136.33	136.331					CTC	FAU-MGR	70				
GRD09-147	136.73	137.25					FAU		50				
GRD09-147	137.25	138.02					FRC		80				
GRD09-147	138.02	138.021					CTC	SCH-MGR	80				
GRD09-147	138.26	138.46					BRX		75				
GRD09-147	139.009	139.01					CTC	MGR-AMP	73				
GRD09-147	140.02	140.09					DYK	MGR	60				
GRD09-147	140.35	140.71					BRX						
GRD09-147	141.219	141.22					CTC	MGR-SCH	70				
GRD09-147	141.22	141.45	50	340	209	15							80/70 Brunton.
GRD09-147	141.45	145.489	80										
GRD09-147	145.489	145.49					CTC	MGR-SCH	65				
GRD09-147	145.49	145.96	80										
GRD09-147	145.96	146.1					DYK	MGR	75				
GRD09-147	146.1	146.101					CTC	MGR-MAI	65				
GRD09-147	146.569	146.57					CTC	MAI-SCH	50				
GRD09-147	146.57	148.9	80										
GRD09-147	148.9	148.901					CTC	SCH-MAI	60				
GRD09-147	150.319	150.32					CTC	MAI-BRX	15				
GRD09-147	150.32	151.18					BRX		20				
GRD09-147	151.18	154.01					BRX						
GRD09-147	154.01	155.43					FAU						
GRD09-147	155.43	156					BRX						
GRD09-147	156	156.42	30										
GRD09-147	156.42	156.57					BRX						
GRD09-147	156.57	158.29	35										
GRD09-147	158.29	160.02					FRC						
GRD09-147	160.02	160.72					BRX						
GRD09-147	160.72	161.8					FAU		50				
GRD09-147	161.8	163.49					BRX						
GRD09-147	163.49	164.04	30										
GRD09-147	164.04	164.75					BRX		30				x-cuts foliation.
GRD09-147	164.75	167.76	55										
GRD09-147	167.76	167.761					CTC	SCH-MGR	60				
GRD09-147	168.07	168.23					XEN	SCH					
GRD09-147	168.33	168.42					XEN	SCH					
GRD09-147	168.49	168.57					XEN	SCH					
GRD09-147	168.94	169	20										
GRD09-147	169	169.001					CTC	MGR-MGR	13				Possible contact between a foliated microgranite and equigranular microgranite.
GRD09-147	169.449	169.45					CTC	MGR-SCH	30				
GRD09-147	169.45	172.06	30										

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-147	172.06	172.3					BRX		20				
GRD09-147	172.3	173.59	45										
GRD09-147	173.59	175.19					FRC		50				Fracturing is mostly subparallel to foliation with a few perpendicular to foliation.
GRD09-147	175.19	175.191					CTC	SCH-MGR	40				
GRD09-147	175.849	175.85					CTC	MGR-SCH	40				
GRD09-147	175.85	177.46					FRC		40				Fracturing is mostly subparallel to foliation with a few perpendicular to foliation.
GRD09-147	177.46	177.89	35										
GRD09-147	177.89	179.72	50										
GRD09-147	179.72	180.09	40										
GRD09-147	180.09	180.31					DYK	MGR					
GRD09-147	180.31	180.53	30										
GRD09-147	180.53	180.74					DYK	MGR	45				
GRD09-147	180.74	182.33	40										
GRD09-147	182.33	185.34					BRX						
GRD09-147	186.13	187.13	60										
GRD09-147	187.13	188.46	80										
GRD09-147	188.46	188.72					DYK	MGR	65				
GRD09-147	188.72	189.46	60										
GRD09-147	189.46	189.461					CTC	SCH-MGR	75				
GRD09-147	189.461	189.639	75										
GRD09-147	189.639	189.64					CTC	MGR-SCH	73				
GRD09-147	189.64	189.69					XEN	SCH					
GRD09-147	189.69	189.691					CTC	SCH-MGR	60				
GRD09-147	189.96	190.06					XEN	SCH					
GRD09-147	190.469	190.47					CTC	MGR-SCH	50				
GRD09-147	190.47	193.26	80										
GRD09-147	193.26	193.37					FAU		80				
GRD09-147	193.37	193.61	80										
GRD09-147	193.61	193.75					FAU		80				
GRD09-147	193.75	195.12	80										
GRD09-147	195.12	195.21					DYK	MGR	50				
GRD09-147	195.21	196.46	80										
GRD09-147	196.46	197.6	70										
GRD09-147	197.6	197.601					CTC	SCH-MGR	60				
GRD09-147	198.789	198.79					CTC	MGR-SCH	60				
GRD09-147	198.79	200.29	60										
GRD09-147	200.29	202.53	75										
GRD09-147	202.53	202.83	75	80	115	36							120/38 Brunton.
GRD09-147	202.83	202.92	75										
GRD09-147	202.92	202.921					CTC	SCH-MGR	70				
GRD09-147	204.029	204.03					CTC	MGR-SCH	65				
GRD09-147	204.03	204.59	75										
GRD09-147	204.59	204.591					CTC	SCH-MGR	15				
GRD09-147	204.591	204.999	75										
GRD09-147	204.999	205					CTC	MGR-SCH	55				
GRD09-147	205	206.04	75										
GRD09-147	206.04	206.41					FRC		20				
GRD09-147	206.41	207.44					FRC		15				
GRD09-147	207.44	209.24	70										
GRD09-147	209.24	210.04	80										
GRD09-147	210.04	210.11					DYK	MGR	55				
GRD09-147	210.19	210.25					DYK	MGR	70				
GRD09-147	210.25	213.75	70										
GRD09-147	213.75	213.78					DYK	MGR	60				
GRD09-147	213.78	214.11	60										
GRD09-147	214.11	214.16					DYK	MGR					
GRD09-147	214.16	214.89	65										
GRD09-147	214.89	214.95					DYK	MGR	60				
GRD09-147	214.95	215.25	70										
GRD09-147	215.25	215.3					DYK	MGR	80				
GRD09-147	215.3	216.05	65										
GRD09-147	216.05	216.29					DYK	MGR	70				
GRD09-147	216.29	216.98	70										
GRD09-147	216.98	217.08					DYK	MGR	70				
GRD09-147	217.08	220.87	75										
GRD09-147	220.87	221.4	75	80	115	36							110/35 Brunton.
GRD09-147	221.4	221.89	75										
GRD09-147	221.89	222.98	75										
GRD09-147	222.98	223.19					DYK	MGR	60				
GRD09-147	223.79	223.97					DYK	MGR	60				
GRD09-147	223.97	224.53	65										
GRD09-147	224.53	224.84	75										
GRD09-147	224.84	225.27	60										
GRD09-147	225.27	225.271					CTC	SCH-MSK	67				

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-147	225.45	225.451					CTC	MSK-MGR	75				
GRD09-147	226.389	226.39					CTC	MGR-MSK	70	150	127	17	
GRD09-147	226.39	226.391					CTC	MSK-FIN	70	180	90	11	
GRD09-147	226.589	226.59					CTC	FIN-MSK	67	176	101	8	
GRD09-147	228.35	228.351					CTC	MSK-MGR	30	220	331	40	
GRD09-147	228.779	228.78					CTC	MGR-MSK	20	200	299	42	
GRD09-147	230.13	230.53	60										
GRD09-147	230.53	232.9	75										
GRD09-147	232.9	233.34	70										
GRD09-147	233.34	233.341					CTC	MSK-MSK	60	200	14	10	
GRD09-147	233.739	233.74					CTC	MSK-MSK	65	210	36	15	
GRD09-147	234.33	234.5	65	125	143	26							
GRD09-147	234.5	234.83	80	223	73	25							65/16 Brunton.
GRD09-147	234.83	234.88					DYK	MGR	60	173	161	4	
GRD09-147	234.88	236.35	70	190	73	12							
GRD09-147	236.35	236.4					DYK	MGR	70	195	66	13	
GRD09-147	236.4	237.2	71	185	82	12							
GRD09-147	237.2	237.36					DYK	MGR	70				
GRD09-147	237.36	238.21	70										
GRD09-147	238.21	238.211					CTC	SCH-MGR	75				
GRD09-147	238.211	239.029	70										
GRD09-147	239.029	239.03	75										
GRD09-147	239.03	239.3	75										
GRD09-147	239.3	239.33					DYK	MGR	80	142	105	24	
GRD09-147	239.36	239.39					DYK	MGR	80	135	107	25	
GRD09-147	239.39	239.76	70	180	90	11							
GRD09-147	239.76	240.01					BRX		20	60	145	87	
GRD09-147	240.01	240.3	78	170	96	19							
GRD09-147	240.3	241.03	80										
GRD09-147	241.03	241.81	80										
GRD09-147	241.81	242.82	80	180	90	21							
GRD09-147	242.82	245.37	75										
GRD09-147	245.37	245.52	75	195	77	17							
GRD09-147	245.52	249.26	80										
GRD09-147	249.26	251.03	75										
GRD09-147	251.03	251.031					CTC	SCH-MGR	75				
GRD09-147	251.899	251.9					CTC	MGR-SCH	80	190	85	21	
GRD09-147	251.9	252.98	70	155	124	15							
GRD09-147	252.98	254.06	70										
GRD09-147	254.06	254.11					DYK	MGR	70				
GRD09-147	254.11	254.48	80										
GRD09-147	254.48	254.51					DYK	MGR	80				
GRD09-147	254.51	254.56	80										
GRD09-147	254.56	254.561					CTC	SCH-MGR	80	61	105	37	115/37 Brunton.
GRD09-147	254.561	256.379	65	83	129	41							
GRD09-147	256.379	256.38					CTC	MGR-UNK	55	33	111	63	
GRD09-147	256.8	256.801					CTC	UNK-MGR	65	55	117	49	
GRD09-147	256.801	258.139	65	30	105	54							
GRD09-147	258.139	258.14					CTC	MGR-SCH	75	238	60	26	
GRD09-147	258.14	258.36	75	238	60	26							64/32 Brunton.
GRD09-147	258.36	258.39					DYK	MGR	80	250	70	29	
GRD09-147	258.39	259.06	70	260									52/33 Brunton.
GRD09-147	259.06	259.061					CTC	SCH-BRX	40	115	176	44	
GRD09-147	259.279	259.28					CTC	BRX-SCH	30	65	144	76	
GRD09-147	259.28	261.66	75	255	60	30							50/40 Brunton.
GRD09-147	261.66	261.74					DYK	MGR	32	200			305/30 Brunton.
GRD09-147	261.74	263.12	75	235	60	25							
GRD09-147	263.12	263.25					BRX						
GRD09-147	263.25	264.25	70										
GRD09-147	264.25	264.41					BRX		50				
GRD09-147	264.41	265.04	70										
GRD09-147	265.04	265.08					BRX		55				
GRD09-147	265.08	265.87	70										
GRD09-147	265.87	266.01					DYK	MGR	65				
GRD09-147	266.01	266.34	65										
GRD09-147	266.34	266.341					CTC	SCH-MGR	80				
GRD09-147	266.341	266.7	70										
GRD09-147	266.7	266.88	75										
GRD09-147	266.88	266.92					DYK	MGR	70				
GRD09-147	266.92	267.97	60										
GRD09-147	267.97	268.3	70										
GRD09-147	268.3	268.36					DYK	MGR					
GRD09-147	268.38	268.51					DYK	MGR	70				
GRD09-147	268.51	269.75	75										
GRD09-147	269.75	269.8	75	330	79	45							80/48 Brunton.
GRD09-147	269.8	269.9					DYK	MGR	70	323	74	48	

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-147	269.9	270.13	68	325	74	50							
GRD09-147	270.13	270.75	70										
GRD09-147	270.75	271.1					DYK	MGR	70				
GRD09-147	271.66	271.77					DYK	MGR	70				
GRD09-147	271.77	272.4	67										
GRD09-147	272.4	272.49					DYK	MGR	80				
GRD09-147	272.49	272.77	80										
GRD09-147	272.77	272.85					DYK	MGR	80				
GRD09-147	272.85	273.13	60										
GRD09-147	273.13	273.17					DYK	MGR	60				
GRD09-147	273.17	273.38	70										
GRD09-147	273.38	273.7					DYK	MGR	50				
GRD09-147	273.7	275.36					BRX						
GRD09-147	275.36	275.46					DYK	MGR	65				
GRD09-147	275.46	275.84	60										
GRD09-147	275.84	275.89					DYK	MGR	70				
GRD09-147	275.89	277.05	70										
GRD09-147	277.05	277.051					CTC	SCH-MGR	70				
GRD09-147	278.559	278.56					CTC	MGR-SCH	75				
GRD09-147	278.71	278.86					DYK	GRA	30				
GRD09-147	278.86	279.38	70										
GRD09-147	279.38	279.47					SHR		70				
GRD09-147	279.47	282.53	70										
GRD09-147	282.53	282.62					DYK	MGR	75				
GRD09-147	282.62	283.28	60										
GRD09-147	283.28	283.34					DYK	MGR	70				
GRD09-147	283.34	284.47					FRC						
GRD09-147	284.47	284.471					CTC	SCH-MGR	60				
GRD09-147	284.559	284.56					CTC	MGR-SCH	63				
GRD09-147	284.68	284.681					CTC	SCH-MGR	40				
GRD09-147	284.899	284.9					CTC	MGR-SCH	60				
GRD09-147	284.97	284.971					CTC	SCH-MGR	60				
GRD09-147	285.019	285.02					CTC	MGR-SCH	60				
GRD09-147	285.07	285.071					CTC	SCH-MGR	65				
GRD09-147	285.369	285.37					CTC	MGR-SCH	70				
GRD09-147	285.44	285.441					CTC	SCH-MGR	70				
GRD09-147	285.78	286.2					BRX		30				
GRD09-147	286.2	287.32	70										
GRD09-147	287.32	287.321					CTC	SCH-MGR	55				
GRD09-147	287.969	287.97					CTC	MGR-SCH	70	80	122	39	
GRD09-147	287.97	288.9	70	183	85	11							
GRD09-147	288.9	288.94					DYK	MGR	50	155	201	17	
GRD09-147	288.94	291.55	70	195	66	13							
GRD09-147	291.55	292.91					FRC						
GRD09-147	292.91	293.22					FAU		70				
GRD09-147	293.22	294.93	80										
GRD09-147	294.93	295.02					BRX		30				
GRD09-147	295.02	297.25	80										
GRD09-147	297.25	297.251					CTC	SCH-MGR	70				
GRD09-147	297.88	297.881					CTC	MGR-MGR	65				
GRD09-147	297.959	297.96					CTC	MGR-MGR	65				
GRD09-147	298.499	298.5					CTC	MGR-SCH	70				
GRD09-147	298.5	299.81	75										
GRD09-147	299.81	299.84					DYK	MGR	70				x-cuts foliation.
GRD09-147	299.84	300.57	80										
GRD09-147	300.57	300.68					DYK	MGR	80				
GRD09-147	300.68	300.98	75										
GRD09-147	300.98	301.03					DYK	MGR	80				
GRD09-147	301.03	302	70										
GRD09-147	302	302.05					DYK	MGR					
GRD09-147	302.05	302.38	75										
GRD09-147	302.38	302.69					DYK	MGR	75				
GRD09-147	302.69	303.28	80										

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-147	1.67	2.74	9	6	0.5	NS	lim									NS	qtz	pyr			5					
GRD09-147	2.74	4.25	62	35	0.5	NS	lim									PL	sox	sox	asp	pyx	70	40				Vein type 2 is mostly dark oxidized sulphides, could be oxidized arsenopyrite.
GRD09-147	4.25	5.13	4	5	1	NS	lim																			
GRD09-147	5.13	7.05	31	28	1	NS	lim	hem			20					PL	hem	hem			50	30				
GRD09-147	7.05	7.22	1	170		CE	cla	lim																		
GRD09-147	7.22	9.49	58	32	0.5	NS	lim	hem			5					NS	lim	hem			30					
GRD09-147	9.49	11.78	58	34	0.5	NS	lim	hem			10					PL	cla	lim				40				
GRD09-147	11.78	13.89	82	52	0.5	NS	lim	hem	sox		5					PL	qtz					60				Vein type 2 parallel to foliation.
GRD09-147	13.89	17.37	114	62	0.5	NS	lim	hem	sox		10					PL	lim	hem	sox	pyr	20	40				
GRD09-147	17.37	21.02	41	25	0.5	NS	cla	lim	hem		1					PL	lim					65				
GRD09-147	21.02	21.97	25	18	0.5	NS	lim	hem	sox		3					PL	lim	sox	pyr		5	60				Vein type 2 x-cuts foliation.
GRD09-147	21.97	22.71	24	20	1	NS	lim	hem	sox		2					PL	lim	sox	hem		35	60				
GRD09-147	22.71	23.45	22	12	0.5	NS	lim	hem	pyr		5					PL	qtz					30				
GRD09-147	23.45	25.38	46	31	0.5	NS	lim									PL	lim					60				
GRD09-147	25.38	27.08	39	31	0.5	NS	lim	sox	pyr		5					PL	lim					50				
GRD09-147	27.08	27.49	39	22	0.5	NS	lim	hem			5					PL	lim	sox	pyr		5	50	60	130	61	
GRD09-147	27.49	33	76	47	0.5	NS	lim	sox			5					PL	lim	sox	hem	pyr	5	20				
GRD09-147	33	33.46	18	11	0.5	NS	lim	hem			5					NS	cla	sox			5					
GRD09-147	33.46	33.49	1	30	30	CE	qtz																			
GRD09-147	33.49	34.84	27	21	0.5	PL	lim	hem	sox		5	25				PL	qtz	lim				50				
GRD09-147	34.84	36.31	44	29	0.5	NS	lim	sox	hem		3					NS	qtz	sox	pyr		5					
GRD09-147	36.31	39.02	29	16	0.5	NS	qtz	pyr			50					NS	lim	pyr	hem		5					
GRD09-147	39.02	39.3	17	10	0.5	NS	lim									NS	qtz									
GRD09-147	39.3	39.48	3	2	0.5	PL	lim	hem			5	40														
GRD09-147	39.48	40.17	19	14	0.5	NS	lim	pyr	hem		5															
GRD09-147	40.17	41.29	20	15	0.5	NS	lim	hem	pyx		10					NS	cla	lim								
GRD09-147	41.29	42.58	17	15	0.5	NS	qtz	pyr			20					NS	lim	hem	pyx	pyr	15					A couple of pure quartz veins present.
GRD09-147	42.58	44.7	11	8	1	NS	lim	hem	pyr		15					NS	cla									
GRD09-147	44.7	45.52	38	117	0.5	NS	lim	hem	pyx	pyr	25					PL	fds					58	85	138	45	Vein type 2 is the intrusive veins.
GRD09-147	45.52	46.35	17	11	0.5	NS	lim	hem			15															
GRD09-147	46.35	46.46	1	110	110	CE	lim	hem			3															
GRD09-147	46.46	48.03	2	1	0.5	NS	lim	hem			30															
GRD09-147	48.03	48.64	31	23	0.5	NS	lim	hem			2					BR	cla					30				
GRD09-147	48.64	49.19	2	1	0.5	NS	lim																			
GRD09-147	49.19	49.57	13	15	0.5	VU	lim	hem	pyx		30	20				VU	lim	hem	pyx			30	55			
GRD09-147	49.57	49.84	23	22	0.5	NS	lim	hem			10					CE	lim	hem				35	50			
GRD09-147	49.84	49.96	1	120	120	CE	lim	hem			25															
GRD09-147	49.96	50.38	34	20	0.5	NS	lim									VU	lim	hem				5				
GRD09-147	50.38	51.02	8	74	0.5	NS	lim	pyr	pyx		15					CE	qtz	pyr	hem			30				
GRD09-147	51.02	52.67	81	61	0.5	NS	pyr	pyr	asp		50					PL	pyr	pyr	asp		40	52	120	165	33	
GRD09-147	52.67	54.57	106	126	1	NS	pyr	pyr	asp	cpy	60					VU	pyr	pyr	hem	asp	35					
GRD09-147	54.57	55.71	73	67	1	PL	qtz	pyr	sox	asp	35	58	142	166	20	PL	pyr	pyr	sox		60	50	345	80	70	Arsenopyrite vein at 49/28.
GRD09-147	55.71	59.89	69	59	0.5	NS	pyr	pyr			70					PL	qtz	pyr			5	35				
GRD09-147	59.89	64.34	118	64	0.5	NS	pyr	pyr	sox	cpy	65					PL	pyr	pyr	sox	cpy	65	70				
GRD09-147	64.34	69.9	79	47	0.5	NS	pyr	pyr			80					PL	pyr	pyr			80	60				
GRD09-147	69.9	69.92	1	20	20	PL	qtz	pyr			5	45	70	136	67											On contact between QFP and Schist.
GRD09-147	69.92	70.53	32	20	0.5	NS	pyx	pyx	pyr		90					NS	qtz	pyr			10					
GRD09-147	70.53	77.24	77	41	0.5	NS	pyr	pyr	pyx		90					NS	qtz	pyr	sox		10					
GRD09-147	77.24	79.82	26	20	1	NS	lim									NS	lim	hem			5					
GRD09-147	79.82	80.94	20	46	1	NS	lim	hem			3					CE	lim	hem			3					
GRD09-147	80.94	84.56	106	88	1	NS	pyr	pyr	sox	asp	80					CE	cla	lim	sox		5	25				
GRD09-147	84.56	91.63	212	132	1	NS	pyr	pyr	asp	cpy	65					PL	pyr	pyr	asp		90	40				Minor quartz veins parallel to foliation. Minor pyrite rich veins subparallel to foliation.
GRD09-147	91.63	93.03	28	35	0.5	NS	pyr	pyr			80					NS	qtz									

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-147	93.03	93.82	32	21	0.5	PL	lim	pyr			35	40				NS	pyr	pyr			80					
GRD09-147	93.82	94.18	9	12	0.5	NS	lim	pyr			15					DS	qtz	pyr			10					
GRD09-147	94.18	96.13	106	49	0.5	NS	cla	lim	pyx	pyr	5					NS	pyr	pyr			80					
GRD09-147	96.13	98.24	82	68	1	NS	qtz	pyr			4					NS	pyr	pyr	lim	cpy	65					
GRD09-147	98.24	98.78	19	10	0.5	PL	qtz					60				PL	pyr	pyr			80	55				
GRD09-147	98.78	99.74	46	23	0.5	PL	cla	lim				35				PL	pyr	pyr			60	60				
GRD09-147	99.74	100.64	50	25	0.5	NS	cla									PL	pyr	pyr	sox		75	55				
GRD09-147	100.64	101.93	52	38	0.5	NS	qtz	pyr	sox		25					NS	cla									
GRD09-147	101.93	102.61	78	36	0.5	NS	qtz	pyr			3					NS	cla	pyr			3					
GRD09-147	102.61	103.57	26	26	0.5	NS	pyr	pyr	sul		65					NS	cla	sul	pyr		5					
GRD09-147	103.57	104.15	51	38	0.5	PL	cla	pyr			3	35				NS	pyr	pyr			80					
GRD09-147	104.15	104.32	1	170	170	CE	cla																			
GRD09-147	104.32	106.97	68	48	1	NS	cla									PL	pyr	pyr	asp		65	40				
GRD09-147	106.97	107.92				CE	qtz	pyr	asp		3															
GRD09-147	107.92	110.03				CE	cla	pyr	sul		3															
GRD09-147	110.03	111.08	42	52	0.5	NS	cla	sul			3					BR	cla	sul	pyr		30	15				
GRD09-147	111.08	111.86	60	37	0.5	DS	pyr	pyr	asp		65					NS	cla									
GRD09-147	111.86	115.57	100	81	1	NS	cla	lim								PL	qtz	pyr	cpy		5	40				
GRD09-147	115.57	117.94	27	41	2	PL	qtz	pyr	sul		3	50				PL	cla					20				Vein type 1 parallel to foliation. Vein type 2 x-cuts foliation.
GRD09-147	117.94	121.48	89	97	2	DS	qtz	pyr			3	35				NS	pyr	pyr	cpy		60					Vein type 1 quartz sweats and bands following foliation.
GRD09-147	121.48	121.62	1			CE	qtz	pyr			5	30														
GRD09-147	121.62	124.87	98	76	0.5	NS	cla	pyr			5					PL	pyr	pyr	asp		65	50				Vein type 2 x-cuts foliation. Minor discontinuous quartz sweats and bands with trace of pyrite.
GRD09-147	124.87	125.35	10	23	0.5	PL	pyr	cpy			65	50				DS	qtz	pyr			1					Vein type 2 are discontinuous quartz bands and sweats.
GRD09-147	125.35	125.42	1			CE	cla	pyr			1	50														Breccia looks to be cutting the rough foliation.
GRD09-147	125.42	125.85	13	10	0.5	NS	cla	pyr			2					PL	pyr	pyr	asp		60	55				
GRD09-147	125.85	132.28	174	148	1	NS	cla	pyr			3					NS	pyr	pyr	asp	cpy	65					Sulphide rich veins are mainly parallel and x-cutting foliation. Unit contains quartz bands and sweats with minor pyrite.
GRD09-147	132.28	135.54	96	86	0.5	NS	cla	pyr			2					NS	pyr	pyr			70					Some sulphide rich veins parallel and x-cutting the foliation. Unit contains quartz bands and sweats with minor pyrite.
GRD09-147	135.54	136.33	10	7	0.5	DS	cla									NS	sul	sul	pyr		70					
GRD09-147	136.33	136.73	19	10	0.5	DS	sul	sul	pyr		80					NS	qtz	pyr			3					
GRD09-147	136.73	137.25	3	2	0.5	NS	sul	sul	pyr		80															
GRD09-147	137.25	138.02	24	16	0.5	PL	cla	lim				10				DS	qtz	pyr			5					
GRD09-147	138.02	139.01	49	24	0.5	NS	pyr	pyr	sul		80					PL	pyr	pyr	sul		80	60				
GRD09-147	139.01	140.34	24	36	0.5	NS	pyr	pyr	cpy		80					PL	pyr	pyr	asp	cpy	90	40				
GRD09-147	140.34	140.71	8	5	0.5	NS	pyr	pyr			65					PL	pyr	pyr	asp		80	30				
GRD09-147	140.71	141.22	16	10	0.5	NS	sul	sul	pyr		80					PL	sul	sul	pyr		80	60				
GRD09-147	141.22	144.65	124	75	0.5	NS	pyr	pyr	sul	asp	80					PL	pyr	pyr	asp		70	60				Quartz bands and sweats were not included.
GRD09-147	144.65	145.49	44	32	0.5	NS	pyr	pyr			80					PL	qtz	pyr	cpy		50	70	10	94	51	
GRD09-147	145.49	146.1	40	20	0.5	PL	pyr	pyr	asp		70	60				PL	cla	sul	pyr		20	3				
GRD09-147	146.1	146.57	25	14	0.5	NS	sul	sul	pyr		70					PL	qtz	pyr			2	50				
GRD09-147	146.57	148.9	92	103	1	PL	qtz	pyr			3	80				PL	qtz	pyr	cpy		30	75				Vein type 1 quartz bands and sweats parallel and subparallel to the foliation. Vein type 2 x-cuts foliation.
GRD09-147	148.9	150.32	80	68	1	NS	lim	sul	pyr		35					PL	qtz	pyr	cpy	asp	50	55				
GRD09-147	150.32	151.18	2	2	1	NS	pyr	pyr			80															
GRD09-147	151.18	154.01	155	96	1	NS	cla	pyr	sul		30					PL	pyr	pyr	cpy		70	70				
GRD09-147	154.01	155.43	1	2	2	PL	pyr	pyr	cpy		80	65														Within a remnant schist section.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-147	155.43	158.29	115	74	0.5	PL	pyr	pyr			70	65				DS	pyr	pyr	sul		80					
GRD09-147	158.29	160.02	30	20	0.5	PL	pyr	pyr	sul		60	60				NS	cla									
GRD09-147	160.02	160.72	24	18	0.5	PL	pyr	pyr	sul		80	55				NS	cla	pyr			5					
GRD09-147	160.72	161.8	6	3	0.5	NS	qtz	sul	pyr		10															Within a competant section of schist.
GRD09-147	161.8	163.49	63	33	0.5	PL	pyr	pyr	cpy		80	65				DS	pyr	pyr	sul		80					
GRD09-147	163.49	167.76	133	70	0.5	PL	pyr	pyr	cpy		60	75				PL	cla	pyr			5	30				
GRD09-147	167.76	169.45	111	61	0.5	PL	qtz	pyr	cpy		15	80				PL	pyr	pyr			80	70				Vein type 1 x-cuts Vein type 2.
GRD09-147	169.45	173.59	234	128	0.5	DS	pyr	pyr	cpy		80					PL	qtz	pyr	cpy		50	70				
GRD09-147	173.59	175.19	38	20	0.5	NS	cla									NS	qtz	pyr	prt		1					
GRD09-147	175.19	175.85	77	35	0.5	DS	pyr	pyr	cpy		80					NS	pyr	pyr	cpy		60					
GRD09-147	175.85	177.46	23	12	0.5	NS	cal									NS	pyr	pyr			60					
GRD09-147	177.46	177.89	16	16	2	PL	qtz	cpy	pyr		5	50				NS	cal									Vein type 1 x-cuts foliation and is x-cut by vein type 2.
GRD09-147	177.89	179.72	52	35	0.5	NS	cal									PL	qtz	cpy	pyr		5	40				Vein type 2 x-cuts the foliation.
GRD09-147	179.72	180.74	62	33	0.5	NS	qtz	pyr	cpy		40					PL	qtz	pyr	cpy		10	30				Few calcite veinlets with sulphides.
GRD09-147	180.74	182.33	63	30	0.5	NS	ser									NS	cal									
GRD09-147	182.33	185.34	50	32	0.5	NS	pyr	pyr			80					PL	pyr	pyr	sul		70	65				
GRD09-147	185.34	187.13	34	17	0.5	NS	bio									NS	pyr	pyr	prt		60					
GRD09-147	187.13	189.46	52	76	2	PL	qtz	pyr			1	65				NS	pyr	pyr	cpy	prt	65					Unit is mostly composed of quartz bands and sweats.
GRD09-147	189.46	190.47	52	28	0.5	NS	pyr	pyr	cpy	prt	90					NS	qtz									Vein type 1 is mostly pyrite.
GRD09-147	190.47	196.46	106	113	1	NS	pyr	pyr	cpy	asp	60					PL	qtz	pyr			1	80				
GRD09-147	196.46	197.6	79	66	0.5	NS	pyr	pyr	cpy	asp	80					PL	pyr	pyr	cpy		80	75				Vein type 2 subparallel to foliation.
GRD09-147	197.6	198.79	53	32	0.5	NS	pyr	pyr	sul	cpy	80					NS	qtz	pyr	sul	cpy	15					Vein type 1 x-cuts vein type 2.
GRD09-147	198.79	200.29	93	82	1	NS	pyr	pyr	sul	cpy	80					PL	qtz	pyr			1	60				
GRD09-147	200.29	202.92	86	73	0.5	NS	cla	pyr	sul		5					NS	pyr	pyr	cpy	nau	60					
GRD09-147	202.92	204.03	46	26	0.5	NS	pyr	pyr	sul		80					PL	pyr	pyr	sul		80	80				
GRD09-147	204.03	204.59	21	25	0.5	NS	pyr	pyr	cpy		80					PL	qtz	pyr	cpy		10	55				Vein type 2 x-cuts foliation.
GRD09-147	204.59	205	11	8	0.5	NS	qtz	pyr			50					PL	pyr	pyr			60	75				
GRD09-147	205	209.24	146	113	0.5	BR	cla					15				DS	pyr	pyr			80					
GRD09-147	209.24	221.89	369	286	2	BR	cla	pyr			15	40				PL	qtz	pyr			1	65				Vein type 2 is mainly quartz bands and sweats. Minor pyrite rich veinlets. Couple of sulphide rich veins with mostly pyrite and minor chalcopyrite.
GRD09-147	221.89	224.53	146	68	0.5	BR	dol	pyr			10					NS	qtz	pyr	cpy		50					Vein type 2 is a mixture between minorly quartz rich veins and pyrite rich veins.
GRD09-147	224.53	224.84	31	21	0.5	PL	cla	pyr			10	45				NS	pyr	pyr			70					
GRD09-147	224.84	225.27	16	15	2	PL	qtz	pyr			1	65				NS	pyr	pyr	prt		65					
GRD09-147	225.27	226.45	30	18	0.5	NS	pyr	pyr			80					PL	pyr	pyr			80	30				
GRD09-147	226.45	227.87	1	30	30	VU	qtz	asp	cpy	pyr	50	30	23	110	68											Some ankerite or dolomite present. 98/78 Brunton.
GRD09-147	227.87	228.35	1	1	1	DS	sul	sul			100															
GRD09-147	228.35	228.78	12	7	0.5	NS	prt	prt	cpy	sul	100					DS	azu	azu			80					
GRD09-147	228.78	230.13	4	2	0.5	NS	cla									DS	azu	azu			80					
GRD09-147	230.13	230.53	4	2	0.5	NS	qtz																			
GRD09-147	230.53	232.9	14	7	0.5	NS	cla	pyr			1					DS	cpy	cpy			100					
GRD09-147	232.9	233.34	12	21	2	NS	pyr	pyr	cpy		90															
GRD09-147	233.34	234.5	4	2	0.5	NS	pyr	pyr			80															
GRD09-147	234.5	238.21	158	126	2	PL	qtz	pyr			1	70	190	73	12	BR	pyr	pyr	cpy		80	30	100	171	60	Vein type 1 is quartz bands and sweats.
GRD09-147	238.21	239.03	39	20	0.5	PL	pyr	pyr			75	45				PL	pyr	pyr			70	70				Vein type 1 x-cuts vein type 2.
GRD09-147	239.03	239.63	37	52	0.5	NS	pyr	pyr			80					PL	pyr	pyr	cpy	asp	70	70	180	90	11	
GRD09-147	239.63	240	21	32	1	CE	cla	pyr			30	20	60	145	57	NS	pyr	pyr			80					
GRD09-147	240	241.03	47	66	2	PL	qtz	pyr	cpy		5	80	350	87	41	NS	pyr	pyr	cpy		75					
GRD09-147	241.03	249.26	263	321	2	PL	qtz	pyr			1	80	185	88	21	NS	pyr	pyr	cpy		65					Most of the veins are quartz bands and sweats that make up vein type 1.
GRD09-147	249.26	249.35	10	8	0.5	NS	pyr	pyr			80					PL	qtz					80				

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-147	249.35	249.41	1	60	60	PL	pyr	cpy			10	70														X-cuts foliation.
GRD09-147	249.41	251.03	167	63	0.5	NS	cla	pyr			1					NS	pyr	pyr	cpy		60					
GRD09-147	251.03	251.13	4	2	0.5	NS	pyr	pyr	sul		70															
GRD09-147	251.13	251.19	5	45	0.5	NS	pyr	pyr	cpy		80					PL	qtz	pyr			3	50				
GRD09-147	251.19	251.9	27	15	0.5	NS	pyr	pyr			65					NS	cla									
GRD09-147	251.9	254.56	92	108	0.5	PL	qtz	pyr	cpy		1	70	160	119	14	PL	qtz	pyr	cpy		50	55	40	115	62	Vein type 1 are quartz bands and sweats.
GRD09-147	254.56	256.38	81	66	0.5	PL	qtz	pyr	cpy		50	75	340	83	45	PL	pyr	pyr	cpy	asp	60	20	225	329	51	Another mineralized set at 212/21.
GRD09-147	256.38	256.8	15	8	0.5	NS	pyr	pyr	cpy		80															
GRD09-147	256.8	258.14	50	28	0.5	PL	qtz	pyr			10	15	300	213	88	PL	pyr	pyr	cpy		65	85	315	85	34	Vein type 2 89/39 Brunton.
GRD09-147	258.14	259.06	25	18	0.5	NS	cal									PL	qtz					70	255	51	32	Minor sulphide bearing veinlets.
GRD09-147	259.06	259.28	20	48	0.5	NS	cal	pyr			2					NS	qtz	pyr	cpy		25					
GRD09-147	259.28	263.12	135	126	2	PL	qtz	pyr			1	70	235	48	25	NS	pyr	pyr			60					
GRD09-147	263.12	263.25	16	18	0.5	CE	cla	pyr			15					NS	pyr	pyr			80					
GRD09-147	263.25	264.25	50	36	0.5	NS	cla	sul	pyr		15					PL	qtz				70					
GRD09-147	264.25	264.41	14	64	0.5	NS	cla	pyr			5					CE	qtz	pyr			5	50				
GRD09-147	264.41	265.04	25	72	10	PL	qtz					70				BR	cla					35				Minor sulphide stringers at 75 tca x-cutting foliation.
GRD09-147	265.04	265.08	1	40	40	CE	qtz	pyr			5	50														
GRD09-147	265.08	266.34	238	101	0.5	DS	pyr	pyr	sul		90					PL	qtz	pyr			1	70				
GRD09-147	266.34	266.7	32	16	0.5	DS	cla	pyr			35	50				NS	pyr	pyr			50					
GRD09-147	266.7	267.97	36	32	0.5	NS	pyr	pyr	cpy		70					PL	pyr	pyr			70	60				
GRD09-147	267.97	274.57	185	126	0.5	PL	pyr	pyr	cpy		70	35				PL	qtz	pyr			1	70				
GRD09-147	274.57	275.36	3	2	0.5	PL	pyr	pyr			80	40														x-cuts breccia.
GRD09-147	275.36	277.05	102	65	0.5	NS	pyr	pyr			80					PL	pyr	pyr	cpy		70	75				
GRD09-147	277.05	278.56	64	45	0.5	NS	qtz	sul	pyr		40					PL	qtz	pyr	cpy		30	60				
GRD09-147	278.56	284.47	122	118	2	PL	qtz					70				NS	pyr	pyr	cpy		60					Some sulphide veins parallel to foliation.
GRD09-147	284.47	285.78	48	30	0.5	PL	qtz	sul	cpy	pyr	15	70				PL	pyr	pyr			65	40				
GRD09-147	285.78	286.2	4	2	0.5	NS	pyr	pyr			80															
GRD09-147	286.2	287.32	19	16	0.5	PL	qtz	pyr	cpy		35	75				NS	qtz									
GRD09-147	287.32	287.97	50	36	0.5	NS	qtz	pyr			5					PL	qtz	pyr	sul		50	65	60	119	48	
GRD09-147	287.97	291.55	66	86	2	PL	qtz	pyr			2	70	190	73	12	PL	qtz	pyr	cpy		10	65	85	130	41	Another quartz and pyrite vein ser at 234/75.
GRD09-147	291.55	292.91	15	8	0.5	NS	pyr	pyr	cpy		90															
GRD09-147	292.91	293.22	5	3	0.5	DS	cal																			
GRD09-147	293.22	294.93	39	32	0.5	NS	pyr	pyr	cpy		80					NS	cal	pyr			3					
GRD09-147	294.93	295.02	1	30	30	CE	qtz	pyr	cpy		5	30														
GRD09-147	295.02	297.25	32	37	2	PL	qtz					80				NS	pyr	pyr	cpy		80					
GRD09-147	297.25	298.5	58	30	0.5	NS	pyr	pyr	cpy		90															
GRD09-147	298.5	303.28	79	102	0.5	PL	qtz	pyr	cpy		0.01	70				NS	pyr	pyr	cpy		80					

Drill Hole Summary

Property:	Nucleus		
Zone:	Nucleus		
Drill Hole ID:	GRD09-150		
UTM Easting:	379050	**Elevation (m):**	997
UTM Northing:	6913886	**Azimuth:**	0
(NAD 83, Zone 8)		**Dip:**	-63
Depth (m):	298.71		
Drill Contractor:	Kluane Drilling Ltd.	**Logged by:**	Z. Gazdik
Date Started:	11-Aug-09	**Date Started:**	13-Aug-09
Date Completed:	15-Aug-09	**Date Completed:**	19-Aug-09
Core Size:	NTW		

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-150	Z. Gazdik		13/08/09	0	12.19	3	0	5.79	REW	REW																	
Nucleus	GRD09-150	Z. Gazdik		13/08/09	12.19	40.3	2	5.79	9.34	SCH	SCH	chl	cla			FG	FO				Chl alt? Cla altered with lim and cla. Some veins roughly // to foliation with minor sox and minor hem. Veins also contain chl and qtz. Occasional boudin with phyllosilicates flowing around them. Minor augens aout 3mm in width. One larger augen/mangles sch section? showing sinistral motion. Occasional relict gar. Gar occur in gar-rich clusters that follow foliation. two thick qtz veins following foliation at 8.7m. ~7 and 2 cm in width.	cla	PAT	s	chl	PER	s	cla alt follows foliation. Banded appearance.
Nucleus	GRD09-150	Z. Gazdik		13/08/09	40.3	42.15	4	9.34	12.19	SCH	SCH	qtz	cla			FG	FO				silicified and bleached. Cla alt. minor remnant chl and faint hem bands that may have been old qtz and sulf veins. Minor amount of old grn dykes that have also been silicifed and alt. highly fractured.	qtz	PER	i	cla	PER	s	
Nucleus	GRD09-150	Z. Gazdik		13/08/09	42.15	50.03	2	12.19	30.58	SCH	SCH	chl	ser			FG	FO				moderate amount of gar and formation of boudins from old veins. Minor brx and fracturing. Ser/musc? throughout. Minor folding. Occasional shearing, crenulation and patches of highley silicified sch. Minor deformed gra/mgr? dyke foliated and with ser alt. chl and bio. Magnetic from 6.36-6.56m.	ser	PAT	s	cla	PER	s	ser is throughout, but intesity varies. Particularily higher ser amoung near relict qtz veins and dykes. Minor epi in highly alt zones.
Nucleus	GRD09-150	Z. Gazdik		13/08/09	50.03	62.05	1	30.58	32.82	SCH	SCH	qtz	cla			FG	FO				may be minor graphite. Highly seritized and silicified. Abundant lim throughout, and hem and lim in veins. Mix of bio and musc/ser in less silicified sections. Very veined and sections of highly fractured core. Possible old grn dyke?	qtz	PAT	i	ser	PAT	s	cla alt s and PAT.
Nucleus	GRD09-150	Z. Gazdik		13/08/09	62.05	64.95	2	32.82	35.36	SCH	SCH	bio	qtz			FG	FO				lots of ser alt. highly fractured and possible minor faulting. Highly alt to lim and goethite. Moderate amounts of hem. Some relict gar. Some silicification and bleaching.	ser	PAT	s	qtz	PAT	s	cla alt. Moderate and PAT.
Nucleus	GRD09-150	Z. Gazdik		13/08/09	64.95	68.3	1	35.36	36.6	SCH	SCH	bio	cla			FG	FO				very fractured and broken up. Possibly faulting? Highly cla alt and ser alt. Pyr in some of the veins.	cla	PER	i	ser	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		13/08/09	68.3	74.68	3	36.6	40.36	SCH	SCH	bio	qtz			FG	FO				less cla alt. some silicification. Gar and relict gar. Sch is foliated, but not as foliated as usual. Slightly more granular and massive. Some shearing.	qtz	PER	s	cla	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		13/08/09	74.68	100.9	4	40.36	43.64	SCH	SCH	cla	bio			FG	FX				extremely cla alt and fractured.	cla	PER	i				
Nucleus	GRD09-150	Z. Gazdik		13/08/09	100.9	102.21	1	43.64	44.36	SCH	SCH	qtz	bio			FG	FO				bands of highly silicified sch or old intrusions that have been sheared and metamorphosed? Large pyr and asp vein ~ 1.5cm in width.	qtz	PAT	s	cla	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		13/08/09	102.21	105.26	2	44.36	47.2	SCH	SCH	bio	qtz			FG	FO				occasional intrusions that are starting to be foliated. Some look to be gra while some may be deformed gra or porphyritic mgr. Some of the grains are blending together. The sch is moderately fractured along foliation. Many vuggy lim veins that follow foliation.	qtz	PAT	m	cla	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09	105.26	298.7	0	47.2	47.9	SCH	SCH	cla	lim			FG	FO				strong to intense alt to cla and lim in patches. May be some foliated mgr, but hard to tell due to alt. If not mgr then bleached sch. Small patch of mineralization near where the possible mgr is. Lower ctc ~47.57m. Pyr. Small, mildly brx section.	cla	PAT	s	lim	PAT	s	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				47.9	48.78	SCH	SCH	qtz	bio			FG	FO				highly silicified. With small gra intrusions. Moderate fracturing and patches of strong cla alt.	qtz	PER	s	cla	PAT	s	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				48.78	49.04	GRA	GRA	qtz	fds			MG	EG	FO			25% mafics. Grains are dominantly EG, but slight elongation to some. Grain size varies slightly throughout and there are minor patches of sch within the gra that are being incorporated into it.	qtz	PER	m	chl	PSM	s	chl is replacing mafics.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				49.04	49.88	SCH	SCH	qtz	chl			FG	FO				very silicified and bleached. Remaining mafics are alt to chl. Small brx section with silica cement, angular clasts of the sch. Minor sox blebs. There is also a large 7cm qtz vein near the end of the unit and moderate offsets that are filled by pyr and lim veins. Offsets are normal.	qtz	PER	s	chl	PSM	s	

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-150	Z. Gazdik		14/08/09				49.88	50.7	SCH	SCH	bio	qtz			FG	FO				very silicified. Less qtz banding in foliation. Some chl alt.	qtz	PER	i	chl	PSM	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				50.7	52.56	SCH	SCH	qtz	bio			FG	FO				very silicified and patchy bleaching. Patches of blebby pyr. Some dark gray cla veins. Tr gar. Very pink. Secondary bio.	qtz	PER	i	bio	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				52.56	53.76	SCH	SCH	bio	qtz			FG	FO				silicified. Some chl alt and patchy cla alt. Minor deformation and faulting. Some gouge near the fault and formation of augens.	qtz	PER	s	cla	PAT	m	chl alt. PSM and mod.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				53.76	55.44	MSK	MSK	qtz	pyr			MG	MO	VU			patchy, blebby pyr with minor boxwork. Patches follow a rough 60 to CA. silica replacement and/or deformed gra intrusions between pyr and patches of deformed and silicified bio sch.	qtz	PER	s	pyr	PAT	s	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				55.44	61.97	SCH	SCH	chl	qtz			FG	FO				chl and bio. Silicified. Patchy epi alt. One small sectio near the end of the unit that may have been an old dyke. It has deformed and alt amp. Width of about 3cm. Minor diss pyr. Small, weakly brx sections. Some fracturing more towards the middle of the section, and lower down there are some augens and more deformed sch. Some small faulting/offsets with reverse orientation. Less epi alt and chl near the end of the section. Small section from 59.44-59.60m of magnetic core. Minor crenullation and some mgr intrusions lower in the unit.	qtz	PER	i	chl	PSM	s	patchy epi alt
Nucleus	GRD09-150	Z. Gazdik		14/08/09				61.97	62.51	MGR	MGR	fds	qtz			FG	FO				Oxidized. Diss pyr, more so in the lower half.	qtz	PER	s	cla	PSM	s	cla replacing fds
Nucleus	GRD09-150	Z. Gazdik		14/08/09				62.51	64.95	SCH	SCH	qtz	bio			FG	FO				silicified and occasional MGR and GRA intrusions. Gra and MGR are slightly foliated. Unit is oxidized. Small BRX. Some sections are more massive.	qtz	PER	s	cla	PER	s	Lim alt in patches, particularily in MGR.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				64.95	68.34	SCH	SCH	qtz	bio			FG	FO				silicified. Minor sheared zones. Bleached in lower section. Pink gar. One vein with pyr and minor bornite.	qtz	PER	s	cla	PER	s	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				68.34	69.02	SCH	SCH	qtz	cla			FG	FO	BX			bleached and silicified. Highly brecciated and oxidized. Small gra dyke at the start of the section. Just prior to the brx the sch looks as though it might have been porphyritic and more felsic in orignin. Minor hem.	qtz	PER	i	lim	PER	s	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				69.02	69.51	SCH	SCH	cla	qtz			FG	FO				very alt. Only minor, patchy oxidation. Minor ser.	cla	PER	i	ser	PAT	w	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				69.51	71.75	SCH	SCH	qtz	cla			FG	FO				bleached and silicified. Highly oxidized and cla alt. Minor brx. Minor hem.	qtz	PER	s	cla	PER	s	Patchy lim.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				71.75	73.08	SCH	SCH	cla	qtz			FG	BX	FO			highly oxidized. BRX. Hem and lim throughout. BRX cement is highly cla alt. Cement poor, except for small sections. Clasts in high cement sections are subrounded to subangular. Ser altered. Occasional vug with goethite inside. Some small patches of more yellow cla/alt mineral.	cla	PER	s	lim	PAT	s	Some ser alt and hem, patchy.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				73.08	74.35	SCH	SCH	cla	qtz			FG	FO				very oxidized. Minor hem. Moderate brx. Ser alt.	cla	PER	s	lim	PAT	s	minor hem and ser alt.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				74.35	76.44	SCH	SCH	qtz	cla			FG	FO				either bleached sch with some small foliated MGR or foliated MGR. Hard to tell due to oxidation. Extremely oxidized with lim and hem. Minor brx.	lim	PER	i	cla	PER	m	Minor hem alt.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				76.44	77.72	SCH	SCH	cla	lim			FG	MA	FO			Extremely oxidized. Intense lim, cla and hem alt. some remnant bio, fds and qtz. Some sections look to have been brx prior to alt. Brx sections.	lim	PER	i	cla	PER	i	Hem alt ~ 15%.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				77.72	79.19	SCH	SCH	cla	lim			FG	FO				extremely oxidized. Lim and cla alt and minor hem. Large qtz vein that is leached and vuggy. Possible small MGR intrusion.	cla	PER	i	lim	PER	i	hem alt.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				79.19	85.7	BRX	BRX	cla	lim			FG	BX	FO			Extremely oxidized and alt. Dominantly sch with minor felsic intrusions that are also extremely alt. Moderate brx cement of silica rich composition. Moderate amount of old qtz veins. Lim and minor hem and goethite throughout. Some occasional brx veins with cla and lim.	cla	PER	i	lim	PAT	i	hem, pat.

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-150	Z. Gazdik		14/08/09				85.7	91.46	SCH	SCH	qtz	cla			FG	FO	BX			moderate amounts of brx and fbx. Crenullated sections. Strongly oxidized with lim and minor hem. Some brx veins with silica cement, and some of the brx is crackle. Minor sox in some of the silica brx. Patchy ser alt. Very fractured at lower end of section.	cla	PER	s	lim	PAT	s	minor patchy hem alt and moderate patchy ser alt.
Nucleus	GRD09-150	Z. Gazdik	S. Dyck	14/08/09				91.46	92.18	GRA	SCH	qtz	cla			FG	FO				Protolith was possibly a gra. Bleached with small flecks of stretched mafics. Oxidized. Minor hem and lim. Checked photos 7-Oct-09 by SD and changed from SCH to GRA.	cla	PER	s	lim	PAT	m	minor hem.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				92.18	92.62	SCH	SCH	qtz	cla			FG	FO				oxidized. Lim and hem. Minor ser. Small section of more sheared looking grains.	cla	PER	s	lim	PAT	s	minor hem and ser alt.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				92.62	92.98	FAU	FAU	cla				FG	FA				minor fault brx and some slickensides. Rubbly and minor gouge. Very cla alt. Pale in colour.	cla	PER	i	kao	PER	w	trace hem and minor lim. Minor ser.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				92.98	95.32	SCH	SCH	qtz	cla			FG	FO	BX			oxidized and cla alt. moderate brx throughout. Cla veins. Minor crenullation. Lim and trace hem. Trace ser.	cla	PER	s	lim	PAT	m	trace hem. Trace ser.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				95.32	95.7	FAU	FAU	cla				FG	FA				rubbly and cla alt. Minor gouge and slickensides. Kao and trace hem.	cla	PER	i	kao	PAT	m	trace hem
Nucleus	GRD09-150	Z. Gazdik		14/08/09				95.7	99.84	SCH	SCH	cla	lim			FG	FO				extremely oxidized and cla alt. Intense lim and minor hem. Minor brecciation. Two sections that are highly fractured and may have been small fault zones.	cla	PER	i	lim	PER	i	minor hem.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				99.84	105.74	SCH	SCH	chl	qtz			FG	FO				dominantly chl at the beggining, but some bio in bands following foliation and increasing down hole. Silicified. epi alt. Some secondary bio. Bands of relict gra intrusions or quartzite layers that have been deformed with the main protolith. Minor bleaching in some sections and mild brittle deformation near the lower section of the unit. Minor shearing-boudins and augens in sections throughout.	qtz	PER	i	chl	OVP	i	epi and secondary bio
Nucleus	GRD09-150	Z. Gazdik		14/08/09				105.74	106.96	SCH	SCH	bio	qtz			FG	FO				Patches of intense network-like veining with epi in some and secondary bio in others. Pyr can occur in both. Silica selvage on them up to 4mm. Gra intrusion deformed by veins. Sch is silicified and banded with qtz rich bands and bio rich bands. One large qtz and cal vein at 105.8m. slight deformation lower in section.	qtz	PER	i	bio	OVP	m	epi alt and some chl alt.
Nucleus	GRD09-150	Z. Gazdik	S. Dyck	14/08/09				106.96	107.91	SBX	MSK	qtz	bio			FG	MO	FO			pyr with sligth boxwork, mainly massive and mottled througout section. Occasional sox. Minor asp. Sch is deformed with some gra and there are bleached sections. Silicified. Checked photos 7-Oct-09 by SD, changed lithology from MSK to SBX since unit appears to be more brecciated than skarn altered.	qtz	PER	i	cla	PER	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				107.91	109.29	SCH	SCH	qtz	bio			FG	FO	MO			Similar to 105.74-106.96m. Silicified. Some gra, but finer grained than previous. Veined. Some offsets and slight fracturing. Banded. Epi alt and secondary bio. Some alt and slightly deformed amps.	qtz	PER	i	epi	PAT	m	some secondary bio.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				109.29	110.58	SCH	SCH	chl	qtz			FG	FO				chl dominated, but bio bands as well. Silicified. Minimal deformation.	qtz	PER	i	chl	OVP	s	Minor epi. Secondary bio and qtz selvages around some of the veins.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				110.58	114.8	SCH	SCH	qtz	bio			FG	FO				silicified and bleached. Some small foliated gra intrusions. Minor offsets. Large vein with asp, pyr, trace cpy and a band of ser and something pale green. Some chl alt.	qtz	PER	i	cla	PER	m	some chl alt, and ser.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				114.8	118.33	SCH	SCH	bio	qtz			FG	FO				some chl alt. Small sections with ductile deformation and small foliated MGR dykes ranging from a cm to 20cm. Minor epi alt and secondary bio. Minor ser alt.	qtz	PER	s	chl	OVP	m	minor epi, secondary bio and ser.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				118.33	118.9	MGR	MGR	qtz	cla			MG	FO				the fds are completely alt to cla. The MGR may have been porphyritic, but it is hard to tell due to foliation. Some of the stretched grains are larger than the other. Small leached section near the LCTC.	cla	PSM	i	kao	PSM	m	

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-150	Z. Gazdik		14/08/09				118.9	120.82	SCH	SCH	bio	qtz			FG	BX	FO			clasts are only up to 4mm in the most brx sections. Some vuggy veins. Minor pyr blebs and infilling fractures and in the cement of the brx and veins. Some small deformed and foliated MGR. Highly fractured and rubbly in the lower half of the section.	cla	PAT	m	qtz	PER	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				120.82	121.19	MGR	MGR	qtz	cla			FG	FO				fds completely alt to cla. Some ser alt.	cla	PSM	i	ser	PER	m	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				121.19	124.2	SCH	SCH	bio	qtz			FG	FO				silicified and patchy bleaching. Foliated MGR dykes- 20%. Up to 15cm. Sch is minorly deformed. Small crenulated sections and minor brx. Highly fractured. Possibly graphite as well.	qtz	PER	m	ser	PAT	w	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				124.2	127.01	SCH	SCH	bio	qtz			FG	FO				Same as above, but less MGR, brx and a small possible MY section of 10cm.	qtz	PER	m	ser	PAT	w	
Nucleus	GRD09-150	Z. Gazdik		14/08/09				127.01	128.85	SCH	SCH	qtz	bio			FG	FO				silicified and patchy bleaching. Much more than in the previous sch. Foliated MGR intrusions- 40%. Some are blending with the sch possibly due to silicification. Minor brx. Minor MY.	qtz	PER	i	cla	PSM	s	ser alt.
Nucleus	GRD09-150	Z. Gazdik		14/08/09				128.85	136.23	SCH	SCH	bio	qtz			FG	FO				silicified and only minor bleaching. Small sections of MY. Increased fracturing down the hole with a mineralized section at 135.31-135.38m. Asp and pyr. Euhedral crystals up to 4mm. Chl alt in bands following foliation. Small section of amp sch at 131.42-131.57m.	qtz	PER	s	chl	PAT	m	cla alt, weak.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				136.23	141.43	FIN	FIN	qtz	fds		2	VF	FP				very silicified. Buff in colour. Minorly flow banded. Phenos are about 2mm. Moderate fracturing.	qtz	PER	i	cla	PSM	s	cla is replacing phenos.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				141.43	145.36	SCH	SCH	bio	qtz			FG	FO				Slight deformation at the CTC with the FIN. Banded bleaching, minor brx and small foliated MGR all increasing down hole. Small amp sch at 142.47-142.53m. Secodary bio, ser, and cla alt.	qtz	PER	i	bio	OVP	s	ser and cla alt.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				145.36	145.74	MGR	MGR	cla	qtz			FG	FO				cla alt fds. Foliated and starting to be brecciated and intruded by fluids. Minor sch xenoliths.	cla	PER	i	kao	PAT	m	minor ser.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				145.74	146.07	SCH	SCH	bio	qtz			FG	FO				silicified and banded bleaching. Minor brx at LCTC of MGR	qtz	PER	s	bio	OVP	m	some ser.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				146.07	147.28	SCH	SCH	qtz	cla			FG	BX	FO			minor cement which consists of cla, sox and qtz. Some bio and ser alt. bleaching. Crackle brx. Increased cla alt down hole. Some minor foliated MGR clasts.	qtz	PER	i	cla	PAT	s	ser and secondary bio alt.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				147.28	148.83	SCH	SCH	cla	qtz			FG	FO				cla and ser alt. possible minor graphite. Bleached. Highly fractured and minor brx. Minor foliated MGR.	cla	PER	s	ser	PER	m	
Nucleus	GRD09-150	Z. Gazdik		16/08/09				148.83	149.93	MGR	MGR	cla	qtz			FG	FO				cla alt. moderatley fractured.	cla	PER	i	ser	PAT	w	
Nucleus	GRD09-150	Z. Gazdik		16/08/09				149.93	150.88	SCH	SCH	cla	qtz			FG	FO				minor foliated MGR intrusions- up to 15cm. Highly fractured and alt. small fault zone with slickensides. Protomylonite at LCTC of MGR.	cla	PER	s	ser	PER	s	
Nucleus	GRD09-150	Z. Gazdik		16/08/09				150.88	151.87	FAU	FAU	bio	qtz			FG	FA	FO			rubbly and fractured along foliation. Ser alt and cla alt. Minor alt gar. Alt to bio.	cla	PER	s	ser	PER	s	
Nucleus	GRD09-150	Z. Gazdik		16/08/09				151.87	154.6	SCH	SCH	qtz	bio			FG	FO				relict gar porphyroblasts up to 1cm in diameter. Show dextral motion. Gar are plentiful ~ 5%. Minor deformed and foliated GRA intrusions, particularily at the beginning of the unit. Ser and cla alt. Lots of qtz bands and bio bands.	ser	PER	s	cla	PER	w	
Nucleus	GRD09-150	Z. Gazdik		16/08/09				154.6	157.76	SCH	SCH	qtz	cla			FG	FO				bleached, cla, chl, ser and secondary bio alt. Minor deformation with some augens. Minor foliated MGR intrusions. Minor brx. Minor more sheared sections with rounded, rolled grains. Not quite MY.	cla	PER	s	ser	PER	s	secondary bio and chl alt.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				157.76	158.13	BRX	BRX	cla	qtz			FG	BX				Clasts consist of foliated MGR and sch. The cement is silica and sox with some chl stringers branching off. Patchy secondary bio and ser.	cla	PER	s	chl	PAT	m	ser, secondary bio pat and m.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				158.13	161.4	SCH	SCH	qtz	cla			FG	FO				bleached and silicified. Minorly foliated GRA and foliated MGR intrusions up to 28cm. Minor crenullation. Cal within foliation and within occasional veins. Strongly fractured. Small sections with increased deformation. A few relict gar. Minor chl	ser	PER	s	cla	PER	m	secondary bio. Minor chl

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Nucleus	GRD09-150	Z. Gazdik		16/08/09				161.4	165.82	SCH	SCH	chl	qtz			FG	FO				silica rich bands and phyllosilicate rich bands. Greenish and faint purple in colour. Secondary bio. Minor MGR intrusions. Ser bands. Alt gar. Still a little gar left, but very fractured. Can see foliation within them showing dextral movement. They are also slightly magnetic. minor cal veins.	chl	OVP	s	ser	PER	m	secondary bio in bands and minor cla in less qtz rich bands.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				165.82	166.67	SCH	SCH	chl	qtz			FG	FO				chl rich. Silicified. Deformed amp sch in small sections and one large one up to 28cm. Amphiboles are altering to chl. Sch is green with some bands of epi altered sch and qtz.	qtz	PER	i	chl	OVP	i	moderate epi alt and some ser.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				166.67	176.77	SCH	SCH	chl	qtz			FG	FO				similar the 161.4-165.82m, but fewer intrusions, minor visible prt in gar, and there is minor brx and epi alt. small sections of bio rich sch. Possibly some trace kyanite? Slightly pale blue and elongate crystals near some of the gar. Small and hard to tell.	chl	OVP	s	ser	PAT	m	epi alt and secodary bio.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				176.77	181.56	SCH	SCH	qtz	chl			FG	FO				same as above, but slightly bleached, more alt and slightly more intact gar. Pale pink. Bio in the pressure shadows and more rounded. Possible kya. Some dark, glassy, very hard mineral is found in diss clusters down the hole. Small and hard to identify.	qtz	PER	s	ser	PAT	s	cla alt and minor epi and secondary bio.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				181.56	184.65	SCH	SCH	bio	qtz			FG	FO				silicified. Chl and epi alt increasing slightly mid section. Some amp sch mixed in. Minor secondary bio. Small brx at end of section.	qtz	PER	i	chl	PAT	s	epi alt and minor secondary bio.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				184.65	185.07	SCH	SCH	qtz	fds			FG	FO	BX			highly silicified. Moderate brx with silica and secondary bio infill. Minor ser.	qtz	PER	i	bio	FFL	m	minor ser and cla.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				185.07	186.44	SCH	SCH	bio	qtz			FG	FO				Same as 181.56-184.65m, but relict gar up to 1cm diameter. Minor fractures and boudins. One small section starting to become more sheared.	qtz	PER	i	chl	PAT	m	secondary bio and minor epi alt. Ser alt.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				186.44	190.19	SCH	SCH	cla	qtz			FG	FO				cla alt, minor faulting with cla and ser infill. Secondary bio and ser. Minor chl. Sparse relict gar. Minor brx. Minor folding and boudins. Small MGR intrusions. Less alt down hole. Minor cal veins.	cla	PER	s	ser	PAT	m	secondary bio and chl.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				190.19	193.22	FAU	FAU	cla	qtz			FG	FA				cla and ser alt. minor chl and bio. Silicifed sections and very soft, cla alt sections. Slickensides and kao. Minor cal veins.	cla	PER	s	ser	PER	s	minor chl and patches of silicification. Kao on ffl.
Nucleus	GRD09-150	Z. Gazdik		16/08/09				193.22	200.19	SCH	SCH	qtz	bio			FG	FO				silicified. Abundant alt gar up to 7mm in diameter. Ser alt and chl alt. Minor secondary bio. Fractured near fault at upper section. Minor foliated MGR intrusions. Some sections are deformed, crenullated and sheared. Minor deformed amp?	qtz	PER	s	ser	PER	s	minor secondary bio and chl.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				200.19	200.68	SCH	SCH	qtz	bio			FG	FO				very silicified and bleached. Ser and secondary bio alt.	qtz	PER	i	bio	PAT	m	ser alt.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				200.68	203.38	SCH	SCH	bio	qtz			FG	FO				silicified bands. Minor bleaching and increasing cla alt down hole. Gar, some alt to bio. Show dextral sense of movement. Minor crenullation in sections.	qtz	PER	s	chl	OVP	m	secondary bio, ser and cla. Cla is increasing down hole.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				203.38	205.7	SCH	SCH	bio	qtz			FG	FO				same sch as above, but more cla alt and increased veining. Moderately brx.	qtz	PER	s	cla	PAT	s	secondary bio and ser.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				205.7	206.74	FIN	FIN	qtz	fds		2	FG	EG	FP			buff in colour. Cla and ser alt. dark, blebby pyr. Slighly flow banded/foliated near LCTC. Some sch incorporated into FIN at LCTC.	qtz	PER	s	cla	PSM	s	minor ser.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				206.74	208.86	SCH	SCH	qtz	cla			FG	FO				silicified, bleached and strongly cla alt. Some ser. Strongly brx sections. Near the lower CTC the sch is dark gray with sox mixed into the silica and occasional bio.	qtz	PER	i	cla	PAT	s	some ser and secondary bio.
Nucleus	GRD09-150	Z. Gazdik	S. Dyck	17/08/09				208.86	209.51	SZN	MSK	qtz	pyr			FG	MO	FO			silicified. Remnant sch still visible. Slightly deformed. Patchy, mottled pyr, asp and minor cpy. Patchy massive qtz. Minor vugs. Sch is cla alt. Checked photos 7-Oct-09 by SD. Changed to SZN from MSK. More of a sulphide zone with local skarn than MSK.	qtz	PER	i	cla	PAT	s	minor ser.
Nucleus	GRD09-150	Z. Gazdik		17/08/09				209.51	210.59	SCH	SCH	qtz	cla			FG	FO				silicified, bleached and strong cla alt. Some ser and secondary bio.	qtz	PER	i	cla	PAT	s	some ser and secondary bio.

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Nucleus	GRD09-150	Z. Gazdik		17/08/09				210.59	219.44	MSK	MSK	qtz	pyr			FG	MO	FO			silicified and silica replacement. Patchy, cla alt sch. Small possible FIN dykes or alt GRA/MGR. Vuggy. Massive pyr dominantly, but bleby, cubic, boxwork as well. Pyr has older, darker phase and brighter, fressher phase. Blebby prt at the beginning of the unit, and patchy blobs throughout. Minor cpy throughout. Patchy asp. Tr bornite and possible blebbs of chalcocite? possible tr native copper? minor blebs of moly/graph/bis. botryoidal siderite filling vugs. Anhydrite crystals near the top of the unit- soft, fibrous euhedral laths light blue to dark blue in colour up to 3mm in length. euhedral malachite and azurite in a small vuggy vein and also coating qtz.	qtz	PER	i	cla	PAT	s	
Nucleus	GRD09-150	Z. Gazdik		17/08/09				219.44	221.63	SCH	SCH	qtz	cla			FG	FO				silicified and cla alt. ser alt. minor foliated MGR intrusions. Moderate brx, particularily near MSK. Small MSK up to 15cm down hole. Mineralized veins, dominantly pyr.	qtz	PER	i	cla	PAT	s	minor ser and secondary bio.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				221.63	223.62	SCH	SCH	qtz	cla			FG	FO				same sch as above, but much less brx and mineralization.	qtz	PER	i	cla	PAT	s	minor ser and secondary bio.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				223.62	224.2	MGR	MGR	qtz	cla			FG	FO	EG			not strongly foliated. Fds are cla alt, but with a more orange cla than usual. Slightly silicified. Occasional larger fds phenos.	qtz	PER	s	cla	PSM	s	minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				224.2	227.46	SCH	SCH	qtz	bio			FG	FO				silicified. Pat cla and ser. Many small foliated MGR sections. One 20cm section of very cla alt brx.	qtz	PER	i	cla	PAT	m	minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				227.46	228.7	MGR	MGR	qtz	cla			MG	FO				very cla alt and some of the cla has been washed out. Minor faults with slickensides.	cla	PSM	i	qtz	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		18/08/09				228.7	229.47	BRX	BRX	qtz	cla			FG	BX	FO			silicified. Granular in sections with cla matrix. Sch dominantly, but some of the MGR as well. Clasts are subrounded to sub angular. Minor ser. Slicken slides on small fault surface at beginning of brx. Tiny, anhedral grains and one euhedral grain of bright blue anhydrite. Slightly fibrous and elongate in the euhedral grain. Throughout brx.	cla	PAT	i	qtz	PAT	i	ser
Nucleus	GRD09-150	Z. Gazdik		18/08/09				229.47	229.97	MGR	MGR	qtz	cla			MG	FO				same MGR as above.	cla	PSM	i	qtz	PAT	m	
Nucleus	GRD09-150	Z. Gazdik		18/08/09				229.97	232.31	SCH	SCH	qtz	cla			FG	FO				silicified, bleached, cla alt and minor ser. Fractured and slight deformation. Minor vuggy brx with some siderite in the vugs.	qtz	PER	i	cla	PAT	m	minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				232.31	239.62	SCH	SCH	bio	qtz			FG	FO				bio decreased down hole and is replaced increasingly with epi alt and bleaching. Minor cla. Relict gar. Large- up to 1cm. Still slightly pink. Blebby mineralization around some of the gar. Mafic halo around gar. Relict gra folded and deformed into the sh. moderate grn intrusions. minor silicified selvages around veins. augens and boudins. some small more sheared zones. Almost MY? Small brx near CTC with MGR. Matrix is pyr with 4% cpy. OooooooOOOoooooH!!!	qtz	PER	s	cla	PAT	s	epi moderate. Minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				239.62	242.36	MGR	MGR	qtz	cla			CG	FO				some larger grains-augens. Was mildly porphyritic? Cla alt fds. Minor ser and occasional faulting.	cla	PSM	i	qtz	PAT	w	minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				242.36	242.85	MGR	MGR	qtz	cla			FG	FO				very alt and darker in colour than the other MGR. patchy sulf. Possibly very alt sch?	cla	PSM	i	qtz	PAT	w	minor ser
Nucleus	GRD09-150	Z. Gazdik		18/08/09				242.85	247.3	MGR	MGR	qtz	cla			CG	FO				same as CG MGR above.	cla	PSM	i	qtz	PAT	w	minor ser.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				247.3	252.87	SCH	SCH	qtz	cla			FG	FO				silicified. Very cla alt and some ser. Cla alt increases the bottom of the unit. moderate fracturing and minor foliated MGRs and dykes. Bleached. Minor secondary bio. Small mineralized section near a large ~ 5cm massive qtz vein. Contains tr blue anhydrite crystals. Augens and minor boudins. Small section rich in alt gar- Appears to be more sheared than the rest. Minor brx near sheared zone. multiple small highly sheared zones.	qtz	PER	i	cla	PAT	s	moderate ser alt. Brighter green near some of the sheared zones. Secondary bio alt. Banded and in sheared zones.

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Nucleus	GRD09-150	Z. Gazdik		18/08/09				252.87	253.72	QFP	QFP	qtz	fds	4	15	VF	FP				large fds phenos up to 1 1/2 cm. Some of the larger ones are poikiloblastic with smaller fds? (look like fds) within, and others are zoned. Some of the fds are more lath-like and cla alt, while some are more stunted and ser alt. Dominantly most have ser. minor brx particularily at UCTC.	qtz	PER	i	cla	PSM	s	strong ser alt.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				253.72	256.85	SCH	SCH	qtz	cla			FG	FO				silicified and cla alt. Some ser and secondary bio. Moderate patchy bleaching. Minor folding and formation of S and C cleavages between some of the fold limbs-parasitic mini folds turning into crenullation cleavages? Some primary bio patches.	qtz	PER	i	cla	PAT	s	some ser alt and secondary bio.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				256.85	257.95	QFP	QFP	qtz	fds	4	15	VF	FP				minor flow banding at CTCs. Phenos are smaller in this QFP than the one above. Largest are up to 1cm, but dominantly they are 1mm for the fds phenos while in the other they were 2mm. Many of the qtz eyes and fds are replaced by pyr. Cla and ser alt. The CTCs with the SCH are minorly brx and sheared.	qtz	PER	i	cla	PSM	s	pyr replacing phenos.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				257.95	258.85	MGR	MGR	qtz	fds			FG	EG				some flow banding near CTCs. Minor SCH unit between QFP and MGR, but too small to break out as separate unit. It is very alt. At UCTC of MGR there is also an influx of silica appearing to come from the QFP, indicating a younger age for the QFP than that of the MGR. The MGR is very cla alt and rich in sulfides.	qtz	PAT	i	cla	PSM	i	some ser alt.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				258.85	260.53	SCH	SCH	qtz	cla			FG	FO				silicified. Same as SCH above MGR and QFP, except more bleaching, less secondary bio and less deformation. Minor formation of augens and boudins.	qtz	PER	i	cla	PAT	i	ser alt, minor secondary bio.
Nucleus	GRD09-150	Z. Gazdik		18/08/09				260.53	266.59	FIN	FIN	qtz	fds			VF	FP				faint flow banding at CTCs. Porphyritic, but with very few larger phenos. Some are large fds like that of the QFP and some may have been qtz eyes that are now replaced by pyr. Many are very small. These small phenos are much denser and appear as though they are a crystal mush. THere are some small sections that appear to be deformed or much more flow banded? They are slightly foliated and the grains are courser and look a little more like that of the MGR above.	qtz	PER	i	cla	PSM	s	ser alt.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				266.59	276.12	SCH	SCH	qtz	cla			FG	FO				silicified and bleached except for some small patches of only silicified sch. Banding of chl and secondary bio in the less bleached sections. Many small GRN intrusions consisting of foliated dykes and MGRs and one unfoliated PPF. Most of the intrusions follow foliation. Minor faulting. minor relict gar. Very alt.	qtz	PER	i	cla	PAT	s	some secondary bio, chl and ser.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				276.12	280.44	SCH	SCH	qtz	bio			FG	FO				silicifed, chl and minor epi alt. alt gar. Still slightly pink, but turning to chl. Some of them appear to have a sinistral motion, but it is not well defined. Minor MGR intrusions. Minor patchy bleaching and cla alt. Increases down hole. Secondary bio alt.	qtz	PER	i	chl	PAT	s	some secondary bio and minor cla. Epi alt and lminor ser.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				280.44	282.75	SCH	SCH	qtz	cla			FG	FO				silicified and bleached. Cla alt. Lots of MGR intrusions, mostly foliated. Follow foliation. Minor brx.	qtz	PER	i	cla	PAT	i	some ser alt.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				282.75	283.46	SCH	SCH	qtz	cla			FG	BX	FO			silicified. Crackle brx. Minor foliated MGR intrusions. Trace anhydrite-bright blue, fibrous, elongate crystals. Cla and ser alt.	qtz	PER	i	cla	FFL	i	ser FFL, s. Cla and ser also replacing mafics and fds in SCH and MGR.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				283.46	287.43	SCH	SCH	qtz	cla			FG	FO				very silicified and bleached. Cla alt. minor secondary bio bands. Some small foliated MGR intrusions parallel to foliation. Very minor relict gar. Some sections are very fractured and one section is fractured and brx.	qtz	PER	i	cla	PAT	s	some minor secondary bio and ser.

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-150	Z. Gazdik		19/08/09				287.43	291.92	SCH	SCH	qtz	bio			FG	FO				patchy with very silicified sections....Or ultramylonitic and any visible foliation is due to intense shearing? Minor GRN (some MGR and some possibly MGR, but very alt) intrusions. Protomylonitic sch at CTC of some of the MGR. minor epi alt and ser alt. Moderate secondary bio. some boudins and small augens. some small foliated MGR cuts a courser grained and partly sheared GRN unit.	qtz	PER	i	bio	PAT	m	ser, epi and minor cla alt.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				291.92	293.24	MGR	MGR	qtz	fds			MG	EG	FO			silicified and highly fractured sections that appear to be due to faulting. Cla and ser alt. Small sch xenos. There is a large gar of 1cm diameter with a small sch rim. The gar is alt, but still slightly pink.	qtz	PER	i	cla	FFL	s	ser on ffl and psm. Cla psm.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				293.24	294.12	SCH	SCH	qtz	bio			FG	FO				very silifified. Possibly an ultraMY. Bands of secondary bio and chl. Minor epi alt.	qtz	PER	i	bio	PAT	s	some ser and minor epi and chl.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				294.12	294.53	MGR	MGR	qtz	fds			FG	FO	FP			slightly foliated. Minorly porphyritic.	qtz	PER	i	cla	PSM	s	some ser.
Nucleus	GRD09-150	Z. Gazdik		19/08/09				294.53	298.7	SCH	SCH	bio	qtz			FG	FO				silicified. Minor bleaching and cla alt. minor foliated MGR intrusions. Some are very alt and look to have been through some shearing. Some rubbly and fractured sections. Minor faulting. Minor sections with shearing-forming boudins, some augens. Small relict gar.	qtz	PAT	s	cla	PAT	m	some secondary bio and ser. Very minor epi.

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-150	29.35	30.04					10			possible asp? Very micacious zone. Dark gray and silvery.
GRD09-150	30.34	30.48					10			possible asp? Very micacious zone. Dark gray and silvery.
GRD09-150	47.2	47.9	pyr	2						small diss blebs. More intense near veins.
GRD09-150	48.78	49.04	pyr	0.5						diss small blebs.
GRD09-150	52.56	53.76	pyr	1						small diss blebs.
GRD09-150	53.76	55.44	pyr	30						Massive, blebby and minor boxwork. Follows a 60 to CA foliation for most of it. Some randomly blebby patches. Occasional cubic pyr.
GRD09-150	55.44	61.97	pyr	2						small diss blebs.
GRD09-150	61.97	62.51	pyr	0.5						diss small blebs.
GRD09-150	62.51	64.95	pyr	3						diss
GRD09-150	64.95	68.34	pyr	1						diss blebs
GRD09-150	79.19	85.7						lim	35	hem-4%. Goethite, lim and hem are patchy throughout the brx.
GRD09-150	99.84	105.74	pyr	1						scattered splotchy blebs and slighlty in foliation
GRD09-150	105.74	106.96	pyr	1						diss and replacing mafics in the gra.
GRD09-150	106.96	107.91	pyr	15			0.001	sox	5	Minorly magnetic
GRD09-150	107.91	109.29	pyr	0.5						blebby
GRD09-150	110.58	114.8	pyr	0.01				sox	0.001	diss.
GRD09-150	120.82	121.19						sox	1	diss small blebs.
GRD09-150	132.8	132.95	pyr	5						blebby
GRD09-150	136.23	141.43	pyr	1						diss small blebs.
GRD09-150	141.43	145.36	pyr	0.001						diss
GRD09-150	145.36	145.74						sox	0.5	diss
GRD09-150	145.74	146.07						sox	2	patchy near LCTC of MGR
GRD09-150	147.28	148.83						sox	1	in foliation, particularily in qtz bands.
GRD09-150	148.83	149.93						sox	1	diss
GRD09-150	149.93	150.88						sox	0.5	in foliation, particularily in qtz bands.
GRD09-150	157.76	158.13	pyr							in cement and diss.
GRD09-150	158.13	161.4						sox	1	small diss blebs.
GRD09-150	161.4	165.82	pyr	1						small diss blebs.
GRD09-150	165.82	166.67	pyr	0.5	0.001					diss
GRD09-150	166.67	176.77	pyr	0.5		0.001				prt in gar, pyr diss.
GRD09-150	176.77	181.56	pyr	0.5						diss
GRD09-150	181.56	184.65	pyr	2						diss small blebs.
GRD09-150	184.65	185.07	pyr	1						diss and diss small blebs.
GRD09-150	185.07	186.44	pyr	0.5						diss small blebs.
GRD09-150	186.44	190.19	Pyr	0.5						diss small blebs.
GRD09-150	190.19	193.22	pyr	1						diss small blebs.
GRD09-150	193.22	200.19	pyr	0.5			0.001			diss and diss small blebs.
GRD09-150	200.19	200.68	pyr	1						patchy near vein and tr diss.
GRD09-150	200.68	203.38	pyr	0.001						diss
GRD09-150	203.38	205.7	pyr	4						patchy blebs
GRD09-150	205.7	206.74	pyr	5						patchy blebs. Increased amount near CTCs.
GRD09-150	206.74	208.86	pyr	5						patchy blebs and fine grained diss in silicified patches.
GRD09-150	208.86	209.51	pyr	20	1		3			patchy, blebs and massive.
GRD09-150	209.51	210.59	pyr	0.5						small patchy blebs
GRD09-150	210.59	219.44	pyr	20	1	3	5			massive, blebby, boxwork, euhedral
GRD09-150	219.44	221.63	pyr	10						mottled and blebby
GRD09-150	221.63	222.76	pyr	1				sox	2	small patchy blebs
GRD09-150	222.76	222.79	pyr	85						massive, patchy.
GRD09-150	222.79	223.62	pyr	1						small patchy blebs
GRD09-150	224.2	227.46	pyr	5			0.001			patchy blebs and a few small specs of asp.
GRD09-150	227.46	228.7	pyr	0.5				sox	0.5	diss. One large bleb with pyr and sox.
GRD09-150	228.7	229.47	pyr	2	0.01			sox	0.5	diss patchy blebs.
GRD09-150	229.47	229.97	pyr	0.5				sox	0.5	diss
GRD09-150	229.97	232.31	pyr	0.5						diss
GRD09-150	232.31	239.5	pyr	8	0.001					large patchy belbs and in pressure shadows around gar
GRD09-150	239.5	239.62	pyr	50	2					brx cement.
GRD09-150	239.62	242.36	pyr	0.001			0.001			diss
GRD09-150	242.36	242.85	pyr	8						faintly patchy and diss.

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-150	242.85	247.3	pyr	0.001						
GRD09-150	247.3	249.94	pyr	1						small diss blebs
GRD09-150	249.94	250.28	pyr	5				sox	10	patchy and blebby.
GRD09-150	250.28	252.87	pyr	1						small diss blebs
GRD09-150	252.87	253.72	pyr	2						pyr replacing phenos and diss in groundmass.
GRD09-150	253.72	256.85	pyr	5			0.001			patchy and blebby.
GRD09-150	256.85	257.95	pyr	5						replacing phenos and diss.
GRD09-150	257.95	258.85	pyr	4				sox	2	diss small blebs.
GRD09-150	258.85	260.53	pyr	4						patchy small blebs and diss
GRD09-150	260.53	266.59	pyr	5	0.01		0.001			pyr is in diss small blebs or replacing phenos and the cpy and asp are diss or found with the pyr. There is also one small section with increased euhedral asp grains.
GRD09-150	266.59	276.12	pyr	2			0.5	sox	1	diss small blebs.
GRD09-150	276.12	280.44	pyr	2						patchy diss very small blebs and replacing some small gar.
GRD09-150	280.44	282.75	pyr	0.5						diss small blebs.
GRD09-150	283.46	287.43	pyr	0.5						diss small blebs.
GRD09-150	287.43	291.92	pyr	0.5						diss
GRD09-150	291.92	293.24						sox	5	diss small angular blebs
GRD09-150	293.24	294.12	pyr	0.5						diss
GRD09-150	294.12	294.53	pyr	3				sox	1	pat diss small blebs.
GRD09-150	294.53	298.7	pyr	1						within foliation. Diss.

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-150	6.5	6.6	75										
GRD09-150	7.84	8	70										
GRD09-150	10.62	10.77	80										
GRD09-150	11.95	12.05	70										
GRD09-150	14.94	15.24	80										
GRD09-150	17.15	17.25	70										
GRD09-150	19.64	19.84	70										
GRD09-150	21.69	22.5	50										
GRD09-150	22.5	22.65	90										
GRD09-150	22.65	22.7	50										
GRD09-150	22.7	23.24	70										
GRD09-150	25	25.05					AXF		87				Fold shows sinistral motion.
GRD09-150	25.05	25.25	80										
GRD09-150	26.95	27.1	80										
GRD09-150	29.9	30	35										
GRD09-150	30	30.005					AXF		70				
GRD09-150	30.005	30.09	45										
GRD09-150	30.09	30.2	70										
GRD09-150	31	31.5	70										
GRD09-150	33.37	33.44	80										
GRD09-150	36.77	36.93	80										
GRD09-150	37.38	37.56	75										
GRD09-150	39.85	40.02	75										
GRD09-150	44.4	44.5	70										
GRD09-150	46.81	47.11	70										
GRD09-150	47.34	47.49	70										
GRD09-150	48.8	49.04	70										
GRD09-150	49.25	49.45					BRX		30	345	77	86	078/84 with brunton for the BRX.
GRD09-150	49.45	49.48	80	140	109	20							
GRD09-150	52.65	52.85	70										
GRD09-150	53.88	53.98	60										
GRD09-150	57.45	57.74	70										
GRD09-150	61.97	62					CTC	SCH-MGR	80				UCTC of MGR
GRD09-150	62.45	62.5	70										
GRD09-150	62.51	62.54					CTC	SCH-MGR	60				LCTC of MGR
GRD09-150	63.8	64	70										
GRD09-150	65.7	65.8	70	120	137	24							
GRD09-150	71.03	71.2	80										
GRD09-150	72.07	72.18					BRX		3				cement rich breccia within main sch brx.
GRD09-150	72.23	72.32					BRX		25				cement rich breccia within main sch brx.
GRD09-150	73.74	73.9	75										
GRD09-150	76.3	76.4	85										
GRD09-150	86.37	86.58	70										
GRD09-150	87.22	87.41					BRX		8				rounded clasts of fine grained silica, qtz vein, and sch. Possible qtz eyes. Slightly vuggy with a fine grained cement rich in lim and small clasts/crystals. Moderate ser alt.
GRD09-150	88.46	88.56							30				some silica cement with 40% partly leached lim and cla. And some crackle brx.
GRD09-150	91.5	91.55	70										difficult to see defined foliation
GRD09-150	92.3	92.42	80										
GRD09-150	93.04	93.14	40										
GRD09-150	94.28	94.4	70										
GRD09-150	94.77	94.78	60										
GRD09-150	95.8	95.9	50										
GRD09-150	97.42	97.54	70										
GRD09-150	99.94	100.08	80										
GRD09-150	100.67	101.1	70										
GRD09-150	101.1	101.9	80										
GRD09-150	102.42	102.62	60										
GRD09-150	104.9	105	70										
GRD09-150	108.4	108.6	60										
GRD09-150	109.56	109.87	70										
GRD09-150	113.71	113.91	80										
GRD09-150	116.07	116.22	70										
GRD09-150	117.6	117.84	80										
GRD09-150	118.33	118.35	60				CTC	SCH-MGR	60				UCTC of MGR
GRD09-150	118.9	118.92	70				CTC	SCH-MGR	70				LCTC of MGR
GRD09-150	121.19	121.21	60				CTC	SCH-MGR	60				LCTC of MGR
GRD09-150	121.21	121.4	60										
GRD09-150	121.73	121.85	80										
GRD09-150	122.2	122.3	75										
GRD09-150	122.8	123.3	40										
GRD09-150	124.4	124.6	40										
GRD09-150	124.68	124.88	70										
GRD09-150	128.3	128.45	70										

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-150	132	132.35	70										
GRD09-150	134.57	134.71	70										
GRD09-150	136.23	136.26					CTC	SCH-FIN	70				UCTC of FIN
GRD09-150	141.8	141.95	70										
GRD09-150	143.37	143.47	80										
GRD09-150	145.74	145.76					CTC	SCH-MGR	70				LCTC of MGR
GRD09-150	145.76	146.07	70										
GRD09-150	148.43	148.53	70										
GRD09-150	149.7	149.8					BRX		20				qtz and sox cement. Rounded clasts.
GRD09-150	149.93	149.94	70				CTC	SCH-MGR	80				LCTC of MGR
GRD09-150	150	150.25					FAU		0				
GRD09-150	150.25	150.3					FAU		20				
GRD09-150	150.9	151	70										
GRD09-150	153.2	153.37	70										
GRD09-150	155.47	155.6					BRX		20				
GRD09-150	156.78	156.9	70										
GRD09-150	160.02	160.12	70										
GRD09-150	162.31	162.51	70										
GRD09-150	166.73	167	70	180	90	7							
GRD09-150	169.67	169.91	70										
GRD09-150	171.64	171.79	80										
GRD09-150	171.79	171.94	60										
GRD09-150	172.29	172.49	80										
GRD09-150	175.57	175.77	80										
GRD09-150	179.81	180.04	80										
GRD09-150	184	184.27	70										
GRD09-150	184.9	185.07	80										
GRD09-150	186.2	186.3	80										
GRD09-150	188.03	188.19	70										
GRD09-150	188.19	188.49					FAU		10				
GRD09-150	192.05	192.18					FAU		25				
GRD09-150	193.62	193.8	50										
GRD09-150	194.04	194.15	70										
GRD09-150	195.8	195.9	60										
GRD09-150	197.68	197.97	70										
GRD09-150	199.4	199.64	70	220	41	17							
GRD09-150	203.27	203.47	70										
GRD09-150	206.84	207.13					BRX		30				near LCTC of FIN. Very alt sch clasts. Possible FIN clasts? Hard to tell. Massive pyr in the cement. Tr asp. Subrounded clasts.
GRD09-150	207.43	207.63	70	220	41	17							
GRD09-150	209.8	209.9	50	80	145	51							
GRD09-150	210.9	211.3	60	85	139	41							
GRD09-150	213.1	213.15	35	80	154	63							
GRD09-150	213.44	213.46					CTC	FIN-MSK	60	90	142	39	brunton check-139/45. UCTC of FIN
GRD09-150	213.57	213.6					CTC	FIN-MSK	60	90	142	39	LCTC of FIN
GRD09-150	219.64	219.84	40										
GRD09-150	222	222.3	75										
GRD09-150	223.62	223.65					CTC	SCH-MGR	45				UCTC of MGR
GRD09-150	224.2	224.22					CTC	SCH-MGR	80				LCTC of MGR
GRD09-150	226	226.3	80										
GRD09-150	227.46	227.5					CTC	SCH-MGR	30	140	213	42	
GRD09-150	228.68	228.7					FAU		50				
GRD09-150	230.92	231.1	70	215	42	15							
GRD09-150	233.6	233.8	80										
GRD09-150	236.9	237.07	80										
GRD09-150	239.5	239.62					BRX		30				
GRD09-150	239.62	239.63					CTC	SCH-MGR	50				UCTC of MGR
GRD09-150	242.4	242.55					FAU		20				
GRD09-150	247.3	247.33					CTC	SCH-MGR	70				LCTC of MGR
GRD09-150	248.9	249	80										
GRD09-150	252.87	252.89					CTC	SCH-QFP	60				UCTC of QFP
GRD09-150	253.83	253.88					AXF		80				Small parasitic folds on these folds as well as formation of crenullation cleavages. Small fold axis cleavages as well were fluids have deposited pyr.
GRD09-150	253.88	253.91					AXF		70				
GRD09-150	253.91	253.95					AXF		70				
GRD09-150	255.7	255.8	70	330	76	45							
GRD09-150	258.85	258.88	70				CTC	SCH-MGR	70				LCTC of MGR
GRD09-150	259.8	259.9	70										
GRD09-150	260.53	260.58					CTC	SCH-FIN	60				The UCTC of the FIN is minorly brx.
GRD09-150	266.59	266.65					CTC	SCH-FIN	40				LCTC of the FIN
GRD09-150	268.47	268.66	70										
GRD09-150	269.96	270.26	70										

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-150	272.7	272.8	60										
GRD09-150	273.05	273.2	50										minor fold near transition from 60-50. Perhaps parasitic fold on a limb? Fold axis of small fold follows possible direction of main fold.
GRD09-150	273.32	273.5	60										
GRD09-150	276.02	276.23	50										
GRD09-150	276.23	276.3	60										
GRD09-150	277.05	277.36	60										
GRD09-150	281.18	281.38	70										
GRD09-150	285	285.2	70										
GRD09-150	289.19	289.34	70										
GRD09-150	289.56	289.66	70	345	83	47							
GRD09-150	294	294.1	70										
GRD09-150	294.12	294.13					CTC	SCH-MGR	60				UCTC of MGR
GRD09-150	294.53	294.55					CTC	SCH-MGR	55				LCTC of MGR
GRD09-150	295.96	296.1	70										

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-150	5.79	9.34	21	140	1	MA	lim	sox	hem		35	40				MA	qtz	sox	hem		0.001	70				tr hem. Minor vugs in the sox rich veins. Tr possible asp.
GRD09-150	9.34	12.19	60	60	1	VU	lim					30														veins have been leached.
GRD09-150	12.19	30.58	240	270	1	BA	lim	hem	sox	pyr	35					NS	lim	sox	hem		15					many of the lim rich veins are low angle to CA, ranging roughly from 0-35. They are highly leached and alt. There is also a similar number of lim veins that follow foliation. They are less leached and are highly ser alt.
GRD09-150	30.58	32.82	75	80	1	SP	lim	hem			25	50				NS	lim	hem			35					
GRD09-150	32.82	35.36	75	80	1	NS	lim	hem	pyr		10															
GRD09-150	35.36	36.6	35	35	1	NS	lim	hem	pyr		5															May be more veins, but due to intense fracturing and alt it is difficult to identify veins.
GRD09-150	36.6	40.36	135	140	1	NS	lim	hem	pyr		5					SP	lim	pyr	hem		35	30				
GRD09-150	43.64	44.36	32	45	1	NS	pyr	lim			35					NS	pyr	asp	lim		15	15				
GRD09-150	44.36	47.2	90	93	1	NS	pyr	sox	asp		1					PL	lim	pyr			5	70				planar veins follow foliation.
GRD09-150	47.2	47.9	75	75	1	NS	pyr	lim	hem	sox	35					BA	qtz	pyr	lim	hem	25	50				the BA vein is about 1cm in width and cross-cuts foliation. Most of the veins have a lim selvage.
GRD09-150	47.9	48.78	80	80	1	NS	pyr	lim	sox		30					CL	pyr	sox	lim		40					The CL veins are dominantly in the small intrusions and have a lim selvage and blebby growths of lim.
GRD09-150	48.78	49.04	20	15	0.5	MV	lim	pyr			5					NS	lim	pyr			5					
GRD09-150	49.04	49.88	50	75	1	NS	pyr	prx	lim		30															some of the veins have blebby growths, and they have lim selvages up to 3mm. One vein has a large pyr bleb up to 0.5cm in width.
GRD09-150	49.88	50.7	22	20	1	NS	lim																			
GRD09-150	50.7	52.56	26	28	1	NS	lim	pyr			5															
GRD09-150	52.56	53.76	10	10	1	NS	lim	pyr			30															
GRD09-150	53.76	55.44	3	8	2	MA	pyr	lim			30	5														
GRD09-150	55.44	61.97	40	45	1	NS	lim	pyr			20															some cla veins and moderate amount of epi veins.
GRD09-150	61.97	62.51	11	11	1	NS	lim																			
GRD09-150	62.51	64.95	80	80	1	NS	lim	pyr			8					MV	lim					20				
GRD09-150	64.95	68.34	35	36	1	NS	lim	pyr			40															
GRD09-150	68.34	69.02	80	80	1	NS	lim																			
GRD09-150	69.02	69.51	4	3	1	NS	sox	pyr								MA	pyr	bor			5	10	65			
GRD09-150	69.51	71.75	27	29	1	NS	lim																			some cla in the veins.
GRD09-150	71.75	73.08	8	6	1	NS	lim																			
GRD09-150	73.08	74.35	17	17	1	NS	lim									SP	lim									
GRD09-150	74.35	76.44	23	26	1	NS	lim	hem			3															Some of the veins are leached and vuggy.
GRD09-150	77.72	79.19	11	11	1	NS	lim																			
GRD09-150	79.19	85.7	45	50	1	NS	lim	hem			1															
GRD09-150	85.7	91.46	19	25	1	NS	lim	hem			1															
GRD09-150	91.46	92.18	4	3	1	NS	lim	hem			0.5															
GRD09-150	92.18	92.62	2	2	1	NS	lim																			
GRD09-150	92.98	95.32	15	15	1	NS	lim																			
GRD09-150	95.7	99.84	17	23	1	NS	lim	hem			5					NS	qtz	hem			3					
GRD09-150	99.84	105.74	29	40	1	NS	lim	pyr			1					NS	qtz	pyr			45					a couple of veins are vuggy and contain cubic pyr and minor hem. Some of the veins contain epi.
GRD09-150	105.74	106.96	75	115	1	CL	bio	pyr	asp		5					BA	qtz	asp	pyr		1	50				the banded vein consists of qtz bands on the outsides of the vein, euhedral 3mm tall crystals with course cal in the centre.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-150	106.96	107.91	4	4	1	NS	pyr																			
GRD09-150	107.91	109.29	65	75	1	NS	qtz	pyr	sox	pyr	40															qtz is fine grained. Slight magnetic patch in a vein at 108.35m. Visible pyr in mid section.
GRD09-150	109.29	110.58	8	10	1	NS	bio	pyr																		minor epi in the veins. Qtz and bio selvages.
GRD09-150	110.58	114.8	90	110	1	NS	pyr	asp								SP	pyr	asp	cpy		10	30				One large vein with pyr, asp and tr cpy has a 15 to CA angle.
GRD09-150	114.8	118.33	56	58	1	NS	pyr									NS	cla	pyr			15					
GRD09-150	118.33	118.9	2	2	1	MA	cla	pyr	sox		20	5				NS	pyr									pyr in the cement of the brecciated sections along with silica/chert.
GRD09-150	118.9	120.82	110	120	1	VU	pyr																			
GRD09-150	120.82	121.19	1	1	1	MA	sox	pyr	asp		5															
GRD09-150	121.19	124.2	45	45	1	NS	sox	pyr	asp		10															
GRD09-150	124.2	127.01	19	23	1	NS	qtz	pyr	asp		35					NS										
GRD09-150	127.01	128.85	3	13	2	VU	qtz	pyr	sox		10															
GRD09-150	128.85	136.23	75	110	1	NS	pyr									VU	qtz	pyr	asp							One large vein/small MSK with asp and pyr. Euhedral and up to 4mm crystals.
GRD09-150	136.23	141.43	340	342	1	SP	pyr	sox	asp	cpy	10	50				SP	pyr	hem	sox		30	20				hem is unoxidized.
GRD09-150	141.43	145.36	65	68	1	NS	pyr	asp			10															
GRD09-150	145.36	145.74	25	25	1	NS	pyr	sox			35					CL	sox	pyr			30					
GRD09-150	145.74	146.07	3	3	1	NS	pyr																			
GRD09-150	146.07	147.28	35	40	1	NS	cla	sox	pyr		35															
GRD09-150	147.28	148.83	5	5	1	NS	sox	pyr			25															
GRD09-150	148.83	149.93	10	20	1	NS	sox																			
GRD09-150	149.93	150.88	9	9	1	NS	sox	pyr			10															
GRD09-150	151.87	154.6	11	11	1	VU	sox	pyr			3															
GRD09-150	154.6	157.76	6	25	1	NS	cla	sox	pyr		10					MA	pyr					70				The MA vein is larger and has small cla alt fds grains within.
GRD09-150	158.13	161.4	18	18	1	NS	sox	pyr			20															
GRD09-150	161.4	165.82	14	18	1	NS	pyr																			
GRD09-150	165.82	166.67	4	9	2	SP	bio	pyr			35															
GRD09-150	166.67	176.77	26	26	1	NS	pyr	sox			10					MA	prt	cpy			0.001					one vein with visible prt and cpy.
GRD09-150	176.77	181.56	22	35	1	VU	pyr									NS	cal	pyr			15					one 1cm thick vuggy vein with sox and cubic pyr.
GRD09-150	181.56	184.65	4	9	1	NS	qtz	pyr			40					NS	asp	pyr			15					the asp bearing vein is blebby and patchy. Located near the end of the section.
GRD09-150	184.65	185.07	55	65	1	NS	pyr									NS	asp	sox	pyr		15					some veins are with qtz and patchy pyr
GRD09-150	185.07	186.44	14	29	1	NS	qtz	pyr	prt	cpy	20															
GRD09-150	186.44	190.19	90	90	1	Cl	sox	pyr			5					NS	pyr									
GRD09-150	190.19	193.22	30	30	1	CL	sox	pyr			5															
GRD09-150	193.22	200.19	19	20	1	NS	pyr									NS	prt									some veins have both.
GRD09-150	200.19	200.68	4	8	1	NS	pyr																			
GRD09-150	200.68	203.38	15	18	1	NS	pyr																			
GRD09-150	203.38	205.7	110	115	1	NS	pyr	pyx								SP	pyr	cpy			0.001	30				
GRD09-150	205.7	206.74	25	30	1	SP	pyr	asp			5	30				NS	pyr									
GRD09-150	206.74	208.86	55	60	1	SP	pyr	asp				30	95	170	61											
GRD09-150	208.86	209.51	9	9	1	NS	pyr	asp			1															
GRD09-150	209.51	210.59	22	22	1	SP	pyr	asp			0.001	30														
GRD09-150	210.59	219.44	235	265	1	SP	pyr	cpy	asp		10	30				NS	pyr	sox	cpy		10					a couple malachite and azurite veins at about 20 to CA.
GRD09-150	219.44	221.63	40	43	1	SP	pyr									NS	pyr									
GRD09-150	221.63	223.62	33	35	1	NS	pyr	cpy			0.001															
GRD09-150	223.62	224.2	17	25	1	SP	pyr	sox			15	20				NS	pyr	sox			15					
GRD09-150	224.2	227.46	100	125	1	NS	pyr	cpy																		many of the veins vary in size and have patchy pyr blebs around them.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-150	227.46	228.7	23	24	1	CL	pyr	sox			35					NS	pyr	sox			30					
GRD09-150	228.7	229.47	10	11	1	CL	sox	pyr	cpy		35					DS	sox	pyr			25					
GRD09-150	229.47	229.97	23	26	1	CL	sox	pyr																		
GRD09-150	229.97	232.31	150	153	1	NS	pyr	sox	asp	cpy	15					CL	pyr	sox	asp	cpy	15					
GRD09-150	232.31	239.62	255	265	1	NS	pyr	sox	cpy	asp	2					SP	pyr	sox	cpy			30				
GRD09-150	239.62	242.36	105	110	1	SP	pyr	asp	cpy		1	30				NS	pyr	sox								
GRD09-150	242.36	242.85	20	23	1	NS	pyr	sox	mol																	
GRD09-150	242.85	247.3	195	198	1	SP	pyr					70				SP	pyr	cpy	mol		0.001	30				CL veins with sox and pyt as well.
GRD09-150	247.3	252.87	180	190	1	NS	pyr	sox			30					SP	pyr	sox	asp	mol	35	85				the moly and asp are tr. Some other SP veins at 40 to CA. One large vein at 251.7 with cla and patchy pyx ~ 1cm in width. Many veins have a silica selvage up to 2mm.
GRD09-150	252.87	253.72	33	35	1	SP	pyr					40				NS	pyr	cpy			0.001					qtz selvages on the veins up to 0.5cm
GRD09-150	253.72	256.85	105	106	1	NS	pyr	cpy	asp		0.001					MA	pyr	sox			15	65	320	69	49	qtz selvages on most of the veins up to 4mm. Some larger veins that are sort of pinched or sheared. They do not go all the way around the core and look to be MGR with some pyr blebs. They are 30 to CA
GRD09-150	256.85	257.95	60	70	1	NS	pyr	cpy	asp		4					NS	pyr	cpy			0.001					the sub-parallel veins vary from 20-70 with dominant CA angles of 40 and 50.
GRD09-150	257.95	258.85	37	47	1	NS	pyr	cpy			0.001					SP	pyr	sox	cpy		15	70				
GRD09-150	258.85	260.53	65	68	1	NS	pyr	sox	cpy		10															
GRD09-150	260.53	266.59	40	43	1	NS	qtz	pyr	cpy	asp	3															tr moly/graph/bis
GRD09-150	266.59	276.12	260	270	1	SP	pyr	prt	asp	cpy	10	40				SP	pyr	sox	cpy		15	80				qtz within many of the veins. Minor cpy within the steeper to CA veins.
GRD09-150	276.12	280.44	155	160	1	SP	pyr	asp	cpy		3	40														
GRD09-150	280.44	282.75	80	90	1	SP	qtz	pyr	sox	cpy	40	80				SP	pyr	cpy			2	40				one 2mm qtz vein at a 80 to CA angle contains graphite/moly? Looks darker than moly and leaves a dark streak so I believe it to be graphite. It is platey. There is also bismuthinite. A lighter silver than the graphite and acicular crystal shape. Slightly built like a castle. The vein is vuggy with euhedral qtz crystals in the void spaces. Also, some 20 to CA veins with vuggy qtz and lots of pyr, minor cpy and minor sox.
GRD09-150	282.75	283.46	12	12	1	SP	qtz	pyr	sox		40	40				CL	qtz	sox	pyr		45					
GRD09-150	283.46	287.43	110	115	1	SP	pyr	cpy	bor		0.001	30				NS	sox	pyr			30					
GRD09-150	287.43	291.92	105	105	1	SP	pyr	sox	cpy		10	40				NS	cla	sox	pyr		15					
GRD09-150	291.92	293.24	20	20	1	CL	sox	pyr																		
GRD09-150	293.24	294.12	10	10		NS	sox	pyr			3															some leached veins that look to have had sulfides
GRD09-150	294.12	294.53	20	20	1	CL	sox	pyr			10					NS	sox	pyr			10					a few leached veins that look SP and may have had sulfides. 20 to CA
GRD09-150	294.53	298.7	25	25	1	NS	sox	pyr			15															some leached veins that look to have had sulfides

Drill Hole Summary

Property:	Nucleus		
Zone:	Nucleus		
Drill Hole ID:	GRD09-153		
UTM Easting:	379000	**Elevation (m):**	989
UTM Northing:	6913725	**Azimuth:**	0
(NAD 83, Zone 8)		**Dip:**	-50
Depth (m):	391.89		
Drill Contractor:	Kluane Drilling Ltd.	**Logged by:**	K. Dodd
Date Started:	19-Aug-09	**Date Started:**	23-Aug-09
Date Completed:	28-Aug-09	**Date Completed:**	31-Aug-09
Core Size:	NTW/BTW after 280 m		

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-153	K. Dodd	S. Dyck	23-Aug-09	0	12.64	2	0	10.67	REW	SCH										Checked photo Oct, 2009 by SD, changed to REW from SCH. Poor core recovery but mostly SCH clasts.	qtz	OVP	m	cla	PER	w	Secondary bio and minor hem alteration.
Nucleus	GRD09-153	K. Dodd	S. Dyck	23-Aug-09	12.64	21.4	1	10.67	11.65	SCH	SCH	qtz	cla			MG	FO				FG to MG silicified felsic SCH. Granular, stretched qtz and fds. Bio layers and as matrix around qtz grains. Fds altered to clay. Minor hem alteration. Pitted texture, qtz veins parallel to foliation. Qtz veins are not pulled apart, don't look like qtz sweats. Minor muscovite. Oxidation on fracture surfaces. Reworked core at top of hole, no overburden.	qtz	OVP	m	hem	PER	s	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	21.4	22.7	2	11.65	12.19	SCH	SCH	qtz	cla			MG	FO				MG strongly clay and hematite altered SCH with muscovite. Minor fault zone, SCH is pitted with convoluted foliation. Qtz veins are brittlely and ductility deformed parallel to foliation. Can still see qtz grains, stretched.	qtz	PAT	m	bio	PER	m	Also have muscovite. Bio decreases down hole.
Nucleus	GRD09-153	K. Dodd		23-Aug-09	22.7	33.7	4	12.19	22.7	SCH	SCH	qtz	bio			FG	FO				FG bio with mus SCH with ox on fracture surfaces. Localized bio replaced garnets. SCH is granular, can see individual qtz grains. Appear rounded, possibly rolled. Increased silicification from 16.24 to 18.35m. Overprint obliterates granular texture as seen both up and downhole. Lim fracture cross cut foliation. 12.19-12.43 highly clay altered SCH. Part of fault noted in above unit but the hem alteration has decreased. Still see abundant mus. UCTC and LCTC broken. Minor patchy hem alteration.	cla	PER	i	hem	PAT	s	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	33.7	36.58	1	22.7	35.48	FAU	FAU	cla									Sand to gravel size fully oxidized fault zone. From 33.53-35.48 becomes rubblely broken SCH, assuming fault is through SCH. Minor 5cm blocks in crumbly zone are SCH. Localized hem alteration, very red clay. 33.35-35.48 is granular bio SCH with hem alteration. Upper and lower contacts broken.	qtz	OVP					
Nucleus	GRD09-153	K. Dodd		23-Aug-09	36.58	38.82	3	35.48	36.45	SCH	SCH	qtz	bio			FG	FO	MY			Highly strained strongly silicified bio SCH with undulating foliation. Qtz veins parallel to foliation are boudinaged and tightly folded.	qtz	PAT	m	cla	PAT	s	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	38.82	39.62	1	36.45	39.7	FAU	FAU	qtz	cla								Fault zone in MGR and highly deformed bio SCH. From 36.45-26.88m highly silicified MGR with lim and hem stringers and fds? Altered to lim. Hem alteration decreases towards end of MGR unit. Becomes very broken, highly oxidized with possible jarisite on fract surfaces (yellow clay), also have goethite. About 37.15m contact between MGR and bio SCH. SCH is same as above, larger qtz pieces and more convoluted foliation. Oxidation increases and fragment size decreases to 38.82. 38.82-39.70 competent bio SCH as from 35.48-36.45m. 39.62-39.70 oxidized clay altered SCH, last part of fault.	qtz	PAT	m	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	39.62	45.72	3	39.7	45.72	SCH	SCH	qtz	cla			FG	FO				Strongly oxidized SCH with localized altered garnets. DS lim stringer cross cut foliation. Same granular texture to the rock as from 0-11.65m, very regular foliation, qtz veins show brittle and ductile deformation, parallel to foliation. 43.80-44.10m possible MGR intrusion. Foliation is disrupted, grain size is MG and grains are aligned at about 30 TCA. MYL? Upper contact broken, lower contact broken parallel to foliation.	cla	PER	i	qtz	PAT	w	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	45.72	47.84	4	45.72	47.84	FAU	FAU	cla									Intensely oxidized SCH in fault zone. Minor competent foliated SCH pieces with hem alteration. Most of the zone is clay altered pebble sized rubble with patchy silicified 5cm pieces. Possible MGR intrusion in fault zone. One highly oxidized piece at about 46m is not foliated and has FG qtz pieces in a silicified matrix.	cla	PER	s	hem	PAT	s	
Nucleus	GRD09-153	K. Dodd		23-Aug-09	47.84	48.77	3	47.84	48.77	SCH	SCH	cla	qtz			MG	FO	MY			Clay and hem altered SCH with weak qtz overprint and possible MGR intrusion. Very granular from 48.04-48.40m. MG clay altered fds follow foliation, possibly rotated? And surrounded by hem alteration. MYL? Or MGR intrusion into SCH? Increased Mag sus in this zone. 48.67-48.77m silicified MGR cross cut by network of lim and hem veins with large patch of hem in zone.	cla	PAT	s	bio	PER	s	
Nucleus	GRD09-153	K. Dodd		24-Aug-09	48.77	53.8	4	48.77	56.1	FAU	FAU	cla	qtz			FG	FO				Fault zone in bio SCH. Majority of the zone is pebble sized oxidized broken SCH. Zones of more siliceous granular bio SCH with qtz veins parallel to foliation. Qtz veins are stretched, not truly boudinaged. Goethite on fracture surfaces. 53.8-54.86 zone is more granular. Qtz grains are rounded, in a matrix of bio. Foliation is more convoluted and cut by calcite veins. Upper and lower contacts broken.	qtz	OVP	s	bio	PER	s	Minor zones of increased silicification

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst		Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-153	K. Dodd		24-Aug-09	53.8	58	2	56.1	62.68	SCH	SCH	qtz	bio				FG	FO				FG to MG granular silicified bio SCH with chl. Qtz veins parallel to foliation. Qtz veins are starting to be stretched and in some places, mostly still solid veins. Localized crenulations, bio and chl bands alternating with more competent but still slightly folded qtz layers. 59-60.96m SCH is more granular, up to MG. Within this zone qtz grains are both stretched and in other areas show little to no strain. Garnets present in this zone. Minor oxidation on fracture surfaces across unit. Minor calcite on fracture surfaces. 56.1-57.10 shows increased oxidation and more fractured rock as SCH transitions from fault zone. Increased qtz veining and hem stringers. Locally strongly oxidized with pitted surface. 62.31-62.39m increased ductilely deformed qtz veining parallel to foliation. Diss pyr and minor epi present.	qtz	OVP	s	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		24-Aug-09	58	93	1	62.68	90	SCH	SCH	amp	qtz				FG	FO	MY			Fine grained strongly foliated and silicified amphibolite SCH with zones of chl bio SCH. Minor MGR intrusions. Qtz veins parallel to and cross cutting foliation. Minor calcite veins at low angle 10-20 TCA. Calcite and oxidation on fracture surfaces. Also localized hem and goethite on fracture surfaces. Qtz grains show strain, stretching of grains. 62.68-67.94 minor epi stringers cross cut foliation. FG well foliated SCH with increased bio from 67.43-67.06m before minor fault. 67.94-68.14m zone of diss epi in SCH. 65.14-70.87 increase in large qtz veins, contain pyr. Magnetite enriched zone from 69.76-70.87m. FG-MG granular SCH (MYL?) with strong mag and minor diss epi. Qtz veins parallel to foliation cut by epi and bio stringers. Qtz grains are stretched, some fractured pieces of qtz veins show rotation. Approximately 73.5-76.20 amphibolite content decrease, becomes FG chl bio SCH with bands of epi parallel to foliation and qtz veins, not stretched, parallel to foliation. As amphibolite content increases from 76.5-778.28m SCH is VF intensely and foliated. Minor qtz veins parallel to foliatio	qtz	OVP	s	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		25-Aug-09	93	120.4	0	90	96.3	SCH	SCH	amp	qtz				FG	FO				Fine grained strongly foliated and silicified amphibolite SCH. Minor broken clay altered fault zones with epidone. Increased calcite veins, calcite on fracture surfaces. Oxidized fracture surfaces with clay alteration. End of previous zone contained increased chl and bio, amp content increases in this unit. Foliation is less well defined. Epidote is stretched and pulled apart but qtz grains are smaller and less stretched. Undulating and convoluted foliation. Diss pyr and minor prt present in zone, previous zone was lacking in sulphides. Foliation becomes more regular from 93.5-end of unit.	qtz	OVP	s	cla	PAT	s	
Nucleus	GRD09-153	K. Dodd		25-Aug-09	120.4	120.8	1	96.3	98.6	SCH	SCH	qtz	cla				MG	FO				Bleached siliceous felsic SCH with about 5% diss sulphides. Zones of granular FG SCH with possible altered grt. Stretched qtz grains parallel to foliation. Bands of secondary bio. 96.30-96.67 fault. Heavily clay altered SCH with minor hem alteration. Pyr replacing fds? 98.03-96.60 zones of massive SCH? Aphanitic groundmass, can faintly see qtz grains.	qtz	OVP	s	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		25-Aug-09	120.8	121.71	2	98.6	110.15	SCH	SCH	qtz	bio				FG	FO				Silicified FG mafic bio SCH with undulating foliation and minor MGR intrusions. 98.80-100.18m very broken core, minor fault zone. Qtz veins parallel to foliation, very broken. Minor brecciated zones parallel to foliation with rotated qtz veins. Diss pyr and very irregular foliation. 100.18-110.15m rock is more competent, strongly siliceous with patchy zones of strong clay alteration. Altered garnets across unit, minor ser alteration. 107.3-110.15 increase in secondary bio alteration. Rock is bleached and intensely siliceous. 100.70 large bleb of asp associated with qtz vein.	qtz	OVP	s	pyr	PHE	s	

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-153	K. Dodd		25-Aug-09	121.71	122.94	1	110.15	117.4	QFP	QFP	qtz	cla	2	10	VF	PO				QFP dyke with about 10 percent fds however the majority of the fds have been altered to either clay or replaced by pyr. There are also vuggy zones where the fds have been completely removed. Fds/pyr phenos range from 2mm to 1cm. Pyr also rims qtz eyes and in some cases appears to replaces the qtz eye. Minor low angle pyr stringers. Sulphides increase from 112.1-113m. Very weak foliation about 50 TCA as denoted by slight stretching of pyr altered fds. Clay alteration increases from weak to moderate between 112.64-112.81m with diss pyr increasing to about 10%. Minor bleached zones wither pheno size increases and concentration of phenos is about 15%. See pictures.	qtz	OVP	s	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		26-Aug-09	122.94	123.2	3	117.4	128.6	SCH	SCH	qtz	cla			FG	FO				Silicified bio SCH with irregular foliation showing ductile deformation. Sporadic altered garnets across unit. 118.6-118.8m vuggy zone with minor pyr stringers and chalcedony? Filling in vugs. Weakly brecciated with pyr forming part of matrix around sub-rounded SCH clasts. 118.97-119.51m bleaches zone, SCH is tan coloured around a 10 cm qtz vein containing pyr and cpy. Zone also contains sulphide veins with blebby asp. 120.4-125.64m weakly oxidized zone with increased oxidation zone from 122.94-123.20m. This area is brecciated and after a massive brittlely fractured qtz vein from 122.94-123.02m. Minor ser alteration across zone, in bands. Weak spike in mag sus at 127.2 associated with qtz vein with pyr. Possible prt but pyr looks brassy and prt isn't visible. Qtz veining parallel to foliation increases towards end of unit.	qtz	OVP	s	cla	PAT	m	Clay alteration occures in areas with minor faults, increased fracture in rock.
Nucleus	GRD09-153	K. Dodd		26-Aug-09	123.2	125.64	1	128.6	132.13	MYL	MYL	qtz	bio			VF	MY	FO			Very fine grained highly strained MYL. Qtz grains are completely stretched parallel to foliation. Possible qtz vein parallel to foliation also is completely stretched. Minor amphiboles and fine diss pyr. Minor pyr stringers. 140.2-145.30m MYL shows increased chl alteration. Patchy zones of increased clay alteration, minor faults and bands of sericitic alteration. Very minor FG-MG MGR intrusions that roughly follow foliation. Calcite on fracture surfaces. 144.95 80 TCA pyr vein with mag.	qtz	OVP	s	bio	PER	m	
Nucleus	GRD09-153	K. Dodd		26-Aug-09	125.64	391.89	0	132.13	157.43	SCH	SCH	qtz	bio			FG	FO	MY			Highly strained and silicified bio SCH. Secondary bio much more dominant, less chl than above. Increased sulphide stringers, cut zone at low angle. Foliated MGR intrusion parallel to foliation. Qtz grains stretched, not as deformed as previous zone. Large qtz veins parallel to and cross cutting foliation are also cut by sulphide stringers. Increased clay altered zone with ser alteration and fractured rock. Sulphide stringers also increase in this zone. Black qtz vein crosses clay altered fault zone at low angle. Contains pieces of clear qtz and pyr blebs. Upper contact gradation al. Lower contact with bleached AMP SCH at 70 TCA. Ser and cal on fracture surfaces. 152.82-153.85 increased clay alteration in bio SCH. Black qtz vein at low angle across zone. Mod clay alteration.	qtz	OVP	s				
Nucleus	GRD09-153	K. Dodd		26-Aug-09				157.43	157.94	SCH	SCH	qtz	amp			FG	FO				Amphibolite SCH. Highly strained, very fractured and broken with ser and clay stringers at 20 TCA. Cal on fracture surfaces. Minor diss pyr.	qtz	OVP	s	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		26-Aug-09				157.94	158.85	SCH	SCH	qtz	chl			FG	FO	MY			Highly strained bleached chl SCH with qtz veins stretched parallel to foliation. Network of DS chl? veins cross unit. Dark veins with possible chl and maybe bio? Scratches fairly easily, not black, more white and flakey. Minor bands of bio alteration. Remnant of granitoid intrusion shows stretched qtz grains. Diss pyr in bio blebs and in dark DS veins.	qtz	OVP	s	chl	BAN	m	
Nucleus	GRD09-153	K. Dodd		26-Aug-09				158.85	159.95	MYL	MYL	qtz	bio			VF	MY				Highly strained bio and chl MYL with qtz veins parallel to foliation. No garnets, band so of chl. Very fine grained. Qtz veins cut foliation. Fine dark veins with sulphides also cross cut foliation.	qtz	OVP	s	chl	BAN	m	

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Nucleus	GRD09-153	K. Dodd		26-Aug-09				159.95	161.2	SZN	SZN	chl	bio			FG	MY				Skarn zone with about 25% pyr in a mylonite. Pyr bands alternate with chl and bio bands. Foliation varies, not as steep as surrounding units. Elevated mag values across unit. 160.27-160.60m increased clay alteration and minor faulting at 50 TCA. Also have minor BRX at 40 TCA. 160.49-160.6 FG-MG granular zone. Remnant GRA with clay alteration of fds and diss sulphides in matrix. Brown clay alteration around this intrusion. Intrusion is foliated, 80 TCA which is consistent with foliation in surrounding units. Likely present before sulphides intruded.	qtz	OVP	s	cla	BAN	s	
Nucleus	GRD09-153	K. Dodd		26-Aug-09				161.2	166.93	FAU	FAU	chl	bio			VF	MY				Fault in MYL zone. Bio and chl MYL with zones of clay alteration. Silicified zones separate discrete bands of strong clay alteration. Clay alteration increases downhole, becomes more pervasive. Rock is mostly green with chl and ser alteration, epi zone from 161.95-162.12m. Brecciated zone from 164.31-164.59m. 161.3-161.4m minor intrusion with sulphide stringers in competent rock. Minor brecciation around intrusion. Slight elevation in mag starting at 161.2 and on a 5cm piece in the middle of the fault. Mag readings also elevated in next unit.	qtz	OVP	i	chl	PAT	m	
Nucleus	GRD09-153	K. Dodd		26-Aug-09				166.93	168.6	MYL	MYL	chl	bio			VF	MY				Intensely silicified bio and chl MYL with qtz bands parallel to foliation. Qtz bands not pulled apart or brittlely deformed. Consistent 85-90 foliation across zone. 167.1-167.25 possible granitic intrusion that has been deformed, can see alteration contact between chl and bio along qtz vein 15 TCA. Diss pyr in this zone from 166.93-163.4m. Most heavily concentrated in chl remnant intrusion area. Elevated mag sus in this unit. Starts and ends in this unit. Upper and lower contacts marked by change in clay alteration, parallel to foliation, 90 TCA.	qtz	BAN	s	cla	BAN	s	
Nucleus	GRD09-153	K. Dodd		26-Aug-09				168.6	169.16	MYL	MYL	chl	bio			VF	MY				Bio chl MYL with bands of strong clay alteration in chloritic zones. Calcite vein 10 TCA cross cuts most intensely clay altered zones. Foliation is very regular. Trace diss pyr.	qtz	OVP	s	chl	BAN	m	
Nucleus	GRD09-153	K. Dodd		27-Aug-09				169.16	173.41	SCH	SCH	qtz	bio			FG	FO				Strongly silicified bio chl SCH with increased qtz veining parallel to foliation and minor MGR intrusions. Bio and chl alteration in bands with bleached section from 171.32-171.62m. Minor bands of mus. MGR intrusions at the beginning of the unit contain diss sulphides with weak iron halos. Qtz veins are parallel to foliation and show both minor brittle deformation and locally ductile deformation.	qtz	OVP	s	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		27-Aug-09				173.41	181.28	SCH	SCH	qtz	chl			FG	MY				Highly strained strongly silicified SCH. Possibly a MYL, however there are zones that have a more granitic texture that has not been obliterated there for proto-mylonite? More chl, less bio than previous unit. Bio stringers cross cut unit. Minor patchy epi and minor stringers with epi, trace diss pyr. Cal and ser on fracture surfaces. Zone with granitic texture are FG to MG, have well rounded qtz grains, some stretched, some not. Bio alteration in matrix around qtz grains. Stretched grains are parallel to foliation. Qtz veins also parallel to foliation, not boudinaged but do show minor offset from the bio stringers. Minor diss mag (I think) in area of mag sus elevated values. Associated with minor band of SP chl stringers at 40 TCA at 178.75m. UCTC parallel to foliation, alteration contact. LCTC gradational into increased bleached SCH/MYL.	qtz	OVP	s	bio	BAN	w	
Nucleus	GRD09-153	K. Dodd		27-Aug-09				181.28	182.8	MYL	MYL	qtz	chl			VF	MY	BL			Bleached highly silicified MYL with zones of stretched granitic intrusions. These intrusion are parallel to foliation and do not retain a granitic texture as in the previous unit. Minor cal on fracture surfaces, weak bands of bio alteration. Minor diss sul.	qtz	OVP	s	bio	BAN	m	

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Nucleus	GRD09-153	K. Dodd		27-Aug-09				182.8	193.22	MYL	MYL	chl	bio			VF	MY	BL			Chl and bio MYL with bleached zones and minor zones of bio SCH. Increased bio from previous unit, bands of bio alternate with bleached bands, much less bio than following unit. Minor crackle breccia at beginning of zone with qtz and bio matrix. Bands of minor bio, qtz veins parallel to foliation. Low angle fractures with calcite on fracture surface. Minor muscovite. 189-193.22 increase in zones with granular texture, similar to those found between 173.41-181.28m. Comprise a smaller volume of the unit and non granitic foliated sections are very definitively MYL where as before they may have been schistose. Therefore despite granitic zones it's still a MYL. Upper contact marked by BRX zone, LCTC gradational alteration contact. Sulphide stringers cross cutting foliation.	qtz	OVP	s	bio			Not sure if chl/bio counts as primary or secondary. I usually call the red brown bio secondary bio.
Nucleus	GRD09-153	K. Dodd		27-Aug-09				193.22	199.6	MYL	MYL	bio	chl			VF	MY				Very regular strongly siliceous MYL with increased bio and chl. No bleached sections. Minor GRA ? Intrusion that has been foliated. Decrease in qtz veins, qtz veins parallel to foliations. Minor diss pyr associated with some of the qtz veins. Pyr stringers cross cut foliation. Sheeted veining continues in this unit, pyr but no asp or cpy. Trace diss pyr in zone. Epi along stringers and as selvage.	qtz	OVP	s				
Nucleus	GRD09-153	K. Dodd		27-Aug-09				199.6	200.64	MGR	MGR	qtz	fds			VF	MY				Strongly silicified mylotinized MGR with minor diss sul and DS sulphide veins. One 1.5 cm qtz vein parallel to foliation. Abrupt upper contact with bio chl MYL, lower contact is sharp with bleached MYL.	cla	PER	m	bio	PAT	m	
Nucleus	GRD09-153	K. Dodd		27-Aug-09				200.64	201.45	SCH	SCH	qtz	bio			FG	FO	BL			Moderately silicified bleached SCH with secondary biotite. Weak to moderate clay alteration. Unit is strongly foliated from 200.64-200.98m. Possible GRA intrusion? Increased bio alteration, MG zone, very convoluted, very weakly brecciated?	qtz	PAT	s	cla	PAT	m	
Nucleus	GRD09-153	K. Dodd		27-Aug-09				201.45	205.79	MGR	MGR	qtz	fds			VF	MY	BL			Mixed zone of strongly silicified very fine grained MY MGR with zones of weak to mod clay altered SCH and secondary bio. MGR is almost massive or like a FIN with very fine grains, no phenos, sort of sugary texture. Lighter FG MGR intrudes massive MGR. Also foliated but can see the individual elongated grains. Minor brecciated zone with pyr blebs along qtz veins. Also blebs of pyr in qtz vein in MGR. 201.54-201.59m Massive pyr vein with vuggy qtz and dolomite, 70 TCA. MGR becomes more grey towards end of unit, increase in DS sulphide stringers.	qtz	OVP	i	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				205.79	207.88	MYL	MYL	qtz	bio			VF	MY	BL			Bleached intensely silicified MYL with bands of secondary bio alteration and minor granitic intrusions. Very fine grained, can see locally stretched qtz. Network of sulfide stringers, majority at 20 TCA. Blebby diss pyr.	qtz	OVP	i	bio	PER	s	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				207.88	211.84	MYL	MYL	qtz	bio			VF	MY	BL			Intensely silicified bio and chl MYL with low angle sulphide/qtz stringers. Stringers are more evident in bleached zones. Minor zones of increased qtz, altered MGR intrusion? With stretched qtz grains. 211.07-211.13 chl altered CG qtz and fds porpheroblast rimmed with bio showing dextral movement. Porpheroblasts increase downhole as MYL becomes more mafic. 208.11-298.12 1cm magnetic sulphide vein cross cutting foliation, 90 TCA. Pyr and prt? Don't see any magnetite. Bleached zones tend to be 70 TCA, chl bio 80 TCA.	qtz	PAT	i	cla	PAT	m	also chl and ser alteration in clay zone.
Nucleus	GRD09-153	K. Dodd		28-Aug-09				211.84	213.93	SCH	SCH	qtz	bio			VF	FO	MY			Strongly silicified bio chl SCH with zones of increased clay alteration. 211.84-212.84 bio zones are FG granular, can see individual qtz grains, don't appear stretched. Porphyroblasts of qtz with fds and possible bio replaced garnets noted in bio and clay/ser altered chl zones. 212.84-213.93 grades into intensely silicified chl bio MYL cross cut by minor qtz veins. Minor calcite in clay altered zone from 211-212.2m.	cla	PAT	s	qtz	PAT	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				213.93	216.92	SCH	SCH	chl	cla			FG	FO	BL			Highly strained bleached and clay altered chl SCH with bands of bio. Qtz veins parallel to foliation, minor qtz veins cross cutting foliation. Ser and cal on fracture surfaces. Very minor low angle sulphide veins. Increased sulphidation and pyr veins in bio SCH towards end of zone from 216.26-216.92m.	qtz	OVP	s	cla	BAN	s	

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Nucleus	GRD09-153	K. Dodd		28-Aug-09				216.92	223.38	SCH	SCH	bio	chl			FG	FO	MY			Strongly foliated bio chl SCH with mylonitic texture. Bands of clay alteration with sericite and calcite. Bands are much smaller than in previous unit, 1-4 cm with. Minor GTA intrusion, MG not foliated but has intruded along foliation. Minor crackle breccia at beginning of the unit, qtz veins parallel to foliation show brittle offset. Minor brecciated zone from 220.43-220.69m. Patch of silicified custard yellow clay and increased blebby pyr. Sheeted veins from 220.69 to end of unit, some containing sulphides.	qtz	OVP	s	cla	PHE	w	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				223.38	226.25	MGR	MGR	qtz	fds			MG	FO				Silicified weakly clay altered foliated MGR. Grain size and degree of foliation changes across unit. Beginning of zone is well foliated bleach SCH mixed with MGR from 223.38-223.72m. 223.72-224.23m is CG foliated MGR with sulphide stringers. 223.72-225.61 increased clay alteration of fds, fewer stringers. Almost phorphyritic texture, well rounded qtz grains are larger than average. 225.61-226.25m large vuggy qtz vein separates mod foliated MGR from well foliated MGR. Vuggy stringers with clay replacement, minor sulphide veins.	qtz	PAT	m	cla	PER	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				226.25	227.85	SCH	SCH	qtz	bio			FG	FO	BL			Highly strained moderately silicified bleached bio SCH. Bands of dark bio SCH alternating with bleached bands. Also have irregular alteration boundary cross cutting foliation between bleached and bio rich SCH. Massive pyr stringer, 9mm at 226.92-226.929m. Cross cuts foliation. Minor fault at end of zone. Mod clay alteration across unit with ser.	qtz	OVP	s	cla	BAN	w	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				227.85	230.75	SCH	SCH	chl	bio			VF	MY				Strongly silicified chl bio SCH. Beginning of the unit is more chloritic, grades into bio SCH with one MGR intrusion parallel to foliation. Minor band of clay and ser alteration. Cal on fracture surfaces. MGR is porpyritic with CG qtz phenos in a stretched matrix of silica. Minor qtz veins cross cut foliation. Minor bands of wavey foliation. Mostly very regular very fine foliated rock, MYL?	qtz	OVP	s				
Nucleus	GRD09-153	K. Dodd		28-Aug-09				230.75	231.41	GRA	GRA	qtz				FG					silicified green gray granitic intrusion with specks of bio and fine diss pyr. Qtz and clay stringers with pyr. Silica washed, but can still see individual grains. Grains not stretched. Colour and mafic content make it seem more like a GRA and not an MGR.	bio	PER	s	cla	BAN	s	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				231.41	233.53	SCH	SCH	bio	qtz			FG	FO				Secondary bio SCH with zones of MGR intrusions. Foliation is irregular, changes orientation. Massive clay zone from 232.66-323.11m. Relict grains, possibly was an MGR intrusion that has been completely clay altered? 233.27-233.38 massive qtz vein parallel to foliation, 60 TCA. DS sul veins across zone.	cla	BAN	m	qtz	PAT	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				233.53	235.78	BRX	BRX	qtz	bio				MY	C	SCH		Auto brecciated bio SCH with angular clasts showing brittle offset along sulphide filled fractures. Clast supported with qtz and clay matrix mixed with minor sulphides. Zones of angular to sub-rounded SCH clasts. Bands of preferentially clay altered SCH alternating with mafic bio SCH. Calcite in minor veinlets. Minor FG clay altered MGR intrusions, not foliated. 235.0m 3mm clay and calcite vein with 20% pyr and 5% sphalerite cross cutting foliation at 30 TCA. 243.41 pyr asp and cpy vein in qtz at 80 TCA. Sampled for thin section/special sampling.	qtz	OVP	s	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				235.78	239.92	MYL	MYL	qtz	bio			VF	MY				Strongly silicified bio MYL with bands of secondary biotite and MGR intrusions parallel to foliation. Very regular foliation. 238.1-239.56 broken fractured core with localized strong clay alteration. Fault zone. Brecciated SCH in fault, very wavey foliation, increase in pyr.	qtz	OVP	m	cla	PHE	m	
Nucleus	GRD09-153	K. Dodd	W. Barnes	28-Aug-09				239.92	240.74	QFP	PPF	fds	qtz	0.5	15	VF	PO				Light grey PPF with less than 1% qtz eyes and about 15% fds phenos. Fds are clay altered, locally oxidized and also locally replaced by pyr/pyx. Vuggy qtz vein with pyr cubes in vugs from 240-240.05m. 240-56-240.74 vuggy vein with pyr in vugs. Original min has been altered out. UCTC broken, LCTC undulating. Jan/10 unit is a QFP based on lithology, model and photos.	qtz	OVP	s	cla	FFL	m	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				240.74	241.56	BRX	BRX	qtz	bio			VF	FO				Crackle brecciated mafic bio SCH between two intrusive dykes. Qtz veins show brittle deformation, cut by qtz and cla stringers. Blebby diss pyr and minor pyr stringers. PPF xenolith in the SCH. Massive pyr at contact of SCH and PPF.	qtz	OVP	m	cla	PHE	s	

Dataset	Hole_ID	Logged_by	Edited_by	Date_Logged	Ox_From	Ox_To	OXIDATION	Lith_From	Lith_To	Litho	Litho_orig	Litho-1	Litho-2	% qtz Phenocryst	% fds Phenocryst	Grain Size	Texture-1	Texture-2	BxClast_1	BxClast_2	Lithology Description	Dominant Alteration	Dominant Alteration Style(occurrence)	Dominant Alteration Intensity	Secondary Alteration	Secondary Alteration Style(occurrence)	Secondary Alteration Intensity	Alteration Description
Nucleus	GRD09-153	K. Dodd	W. Barnes	28-Aug-09				241.56	245.07	QFP	PPF	fds	qtz	0.2	12	VF	PO				Light grey aphanitic PPF with very minor qtz eyes at UCTC of SCH and PPF. PPF is crackle brecciated with localized true breccias around a clay altered fault zone. Unit is vuggy, material has altered out. Clay fracture fill mixed with qtz? Harder than pure clay, not dolomite, doesn't react with HCL. Pyr in vugs with clay infill. Blebby pyr along brecciated vein at beginning of unit. 241.56-241.73 chill margin between PPF and SCH. About 2% qtz eyes, only 5% fds and increased diss sul. Stretched vugs filled with secondary pyr. Strong clay alteration of fds to clay. Sulphides not replacing fds in this section. Jan/10 unit is a QFP based on lithology, model and photos.	qtz	OVP	s	cla	BAN	w	
Nucleus	GRD09-153	K. Dodd		28-Aug-09				245.07	246.43	SCH	SCH	qtz	bio			FG	FO	BX			Bio SCH with minor MGR intrusions parallel to foliation. Weakly crackle brecciated with cal and clay fracture fill. Trace epi, trace pyr.	qtz	OVP	s	cla	PHE	w	
Nucleus	GRD09-153	K. Dodd	W. Barnes	29-Aug-09				246.43	248	QFP	PPF	fds	qtz	0.1	10	VF	PO				Grey aphanitic matrix with very few qtz eyes and about 10% fds, 2mm-5mm. Moderately clay altered fds. Phenos not replaced by sulphides, about 1.5% fine dark sulphides disseminated through zone, pyr visible towards end of zone. 247.95-248.0m chill margin between PPF and SCH. Increased qtz eyes, almost no fds, very siliceous aphanitic matrix. Jan/10 unit is a QFP based on lithology, model and photos.	qtz	OVP	s	cla	PER	m	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				248	249.91	SCH	SCH	qtz	bio			VF	MY	BL			Very highly strained bio SCH with bleached bands. Minor foliated MGR intrusion. Clay alteration in MGR and increased clay alteration of the SCH from 249.6-249.91m. Brecciated zone from 249.49-249.57m, possible filled vug. Sharply truncated by SCH bands. Can orient core from filled vug.	qtz	OVP	m	cla	PHE	m	
Nucleus	GRD09-153	K. Dodd	W. Barnes	29-Aug-09				249.91	251.05	QFP	PPF	qtz	fds	0.2	20	VF	PO				Light grey aphanitic PPF with very minor qtz eys. Qtz eyes more prevalent at upper and lower contacts in chill margin. 20% fds phenos, range in size from 1mm well developed rectangular crystals to 3-4mm sub-rounded crystals. Looks like two generations of fds crystallization. Diss pyr throughout zone, about 1.5% with minor pyx. Sulphides replacing the occasional fds, not as prevalent as pervious units. 250.9-251.05m lower chill margin. Phenos taking on a weak foliation of 60 TCA. Jan/10 unit is a QFP based on lithology, model and photos.	qtz	OVP	s	cla	PAT	m	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				251.05	253.93	SCH	SCH	qtz	mus			FG	FO	BL			Highly strained bleached muscovite SCH with minor brecciated zone at upper contact and sections of foliated MGR. About 40% MGR, 60% SCH. Bands of bio SCH, qtz veins parallel to and cross cutting foliation. MGR is FG, foliated with sulphide stringers. Strongly clay altered zone at 253.50 in MGR. Clay and ser alteration on fracture surfaces.							
Nucleus	GRD09-153	K. Dodd		29-Aug-09				253.93	255.9	FAU	FAU	bio	cla								Fault in bio and chl SCH. Calcite on fracture surfaces. More competent at beginning of zone, foliation 85 TCA. Minor foliated MGR intrusion with on 1mm sul and pyr vein, 90 TCA.	qtz	OVP	s	cla	BAN	m	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				255.9	258.55	SCH	SCH	bio	ser			FG	FO	BL			Highly strained bio altered ser SCH with bands of strong clay alteration and intrusions of both MGR and GRA. Both granitic intrusions are foliated. Very with fresh MGR cross cuts foliation, the other intrusions follow foliation. Bleached zones, clay on fracture surfaces. 257.73-258.55m minor GRA sections with GC stretched qtz grains and bands of increased slicification. Minor stringers at 258.03 cross cutting foliation at 30 TCA.	qtz	OVP	s	bio	BAN	s	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				258.55	263.53	SCH	SCH	bio	chl			FG	FO	BL			Highly strained bio and chl SCH with bleached zones and localized garnets. Foliated GRA intrusions parallel to foliation, alternating with bands of secondary bio SCH. GRA is green/grey, slicified MG with stretched qtz grains. Also contains stretched mafics, bio? Cal on low angle fractures, 15 TCA. 261.23-261.59m increased chl zone, dark green, diss pyr also increases. 261.59m sharp contact between chl SCH and secondary bio SCH. Bio zone grades into bleaches zone, corresponds to an increase in garnets, red,3-5mm. Chl increases towards end of unit, corresponds to a slight increase in mag.	qtz	OVP	s				
Nucleus	GRD09-153	K. Dodd		29-Aug-09				263.53	263.88	SZN	SZN	chl	pyr			FG	FO				Pyr in chl bio SCH. Very mafic, pyr mostly in bands following foliation. Mineralization has abrupt upper and lower contacts, lighter chl ser zones after pyr have only very fine diss pyr, not blebby like in main zone from 263.54-263.80m. 25% pyr.	qtz	OVP	s	bio	BAN	m	

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Nucleus	GRD09-153	K. Dodd		29-Aug-09				263.88	266.33	SCH	SCH	chl	bio			FG	FO	BA			Chlorite biotite SCH with bands of secondary bio and highly siliceous light green bands. Preferential clay alteration on secondary bio bands. Qtz veins parallel to foliation. MGR intrusion with faint green patches. MGR is MG-CG on margins and FG in the centre. One qtz grain disrupts the CG FG progression in the middle of the zone. Cross but by DS pyr/pyx veins. Zone cut by clay and calcite veins 30-40 TCA. Minor mus in bio bands and minor bio altered garnets. Pyr increases from 266.12-266.33 at contact of following MGR unit.	qtz	OVP	s	bio	BAN	s	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				266.33	269.05	MGR	MGR	qtz	fds			FG	FO				FG foliated MGR with sulphide stringers and bands of secondary bio SCH. Bio SCH contains qtz veins parallel to foliation and minor calcite veinlet. Cal on fracture surface. Sulphides stringers confined to MGR. Minor diss pyr in SCH.	qtz	OVP	s	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				269.05	273.07	SCH	SCH	bio	chl			VF	MY				Very highly strained bio chl SCH with localized garnets with biotite pressure shadows. Bands of secondary bio, red altered garnets and qtz veins parallel to foliation. Minor granite intrusion, foliated, FG to MG with minor bio. Calcite on fracture surfaces. Weak mag anomaly from 270.72-271.0m. Highly siliceous green bands. Might by MYL?	qtz	OVP	i	bio	BAN	w	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				273.07	274.9	SCH	SCH	chl	bio			VF	MY				Very highly strained intensely silicified chl bio SCH. Change in colour to more green rock. 273.14-273.21m minor mag increase associated with increased diss pyr. Second increase from 274.09-274.14 also associated with pyr, less than previous section. Bands of very green/blue at 274.25m, hard, chl mixed with epi? Localized bands of epi. Pyr throughout zone, also locally concentrated in bands, nto stringers.	qtz	OVP	m	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		29-Aug-09				274.9	276.21	SCH	SCH	bio	mus			VF	MY	BL			Very highly strained bleached bio mus SCH with weak clay alteration. 274.9-275.2m strongly clay altered fault in bio SCH. 275.2-275.37m pyr vein zone and minor mag increase. Unit is weakly crackle brecciated with cal and clay fracture fill. Minor brecciation at lower contact with MGR intrusion. Localized red clay altered garnets.	qtz	OVP	s				
Nucleus	GRD09-153	K. Dodd		29-Aug-09				276.21	276.76	MGR	MGR	qtz	fds			MG	FO				Foliated MG MGR with minor dis sulphides and sulphide stringers. Grain size is CG-MG at upper contact, mod clay altered. Lower contact is sharp, 60 TCA.	qtz	OVP	i	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				276.76	293.76	SCH	SCH	chl	bio			VF	FO	MY			Intensely silicified chl bio SCH with zones of intense silicification, possibly MYL? Bands of alternating bio and chl. Local epi. Clay and cal on fracture surfaces. Qtz veins parallel to foliation and low angle, 20 TCA cal veins cross cutting foliation. Minor MGR intrusions, some parallel some t a lower angle to foliation. Localized bands of clay alteration between 289.56 to 292.61m. Reduced to BQ core at 280m. 277-277.06m bleb of green CG amphiboles with minor diss pyr. Round bleb with bio chill margin in qtz vein that intrudes along foliation.	qtz	OVP	i				No sure if geen colour is an alteration, the pervious SCH and following SCH is also green.
Nucleus	GRD09-153	K. Dodd		30-Aug-09				293.76	294.6	GRA	GRA	qtz	fds			MG	EG				Intensely silicified green grey MG GRA with bio and SP sulphide stringers. Low angle 20 TCA clay and cal vein, cal and ser on fracture surface. LCTC along cal vein.	qtz	OVP	i	bio	BAN	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				294.6	305.14	SCH	SCH	bio	chl			FG	FO	BA			Intensely silicified bio chl SCH with beached bands. Localized brecciation and localized beached bands. Red garnets across zone. Qtz veins parallel to foliation, so becoming stretched and boudinaged. Foliation is wavier than in previous section. Minor MG MGR intrusions parallel to foliation. Minor calcite veins and ser on fracture surfaces. 203.79 bleb of tarnished pyr with elevated mag.	qtz	OVP	i	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				305.14	306.26	SCH	SCH	qtz	chl			FG	FO				Intensely silicified chl SCH with bands of light green silicified ser alteration. Zone cross cut by ser plus chl? And qtz stringers. Minor very altered garnets, silicified, green, contain trace pyr. Slight increase in diss pyr. Likely an increase in stringers but they are very fine and often parallel to foliation, hard to see when not on a fresh surface.	qtz	OVP	i	chl	BAN	m	

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Nucleus	GRD09-153	K. Dodd		30-Aug-09				306.26	306.93	SCH	SCH	qtz	amp			FG	FO	MA			Dark green amp SCH that becomes more massive towards the contacts with the following MGR unit. Increase in pyr content and sulphide stringers. MGR inclusion into SCH is light green, intensely silicified, almost massive. Diss pyr about 5% locally, 3% across zone. Bands of pyr following foliation. Light green ser? alteration mixed with qtz in qtz flooded zone at UCTC. UCTC and LCTC gradational.	qtz	OVP	i				
Nucleus	GRD09-153	K. Dodd		30-Aug-09				306.93	307.85	MGR	MGR	qtz	fds			MG	FO				Typical foliated MGR with stretched qtz grains 80 TCA. DS sulfide veins cut zone with trace diss pyr. Upper contact gradational, lower contact broken.	qtz	OVP	i	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				307.85	310.1	MSK	MSK	qtz	pyr			FG	FO	MO			MSK in chl SCH. Foliated with blebby pyr replacement in rough bands Pyr is brassy, mixed in with stretched qtz grains and clay altered fds? Pyr replacing dark green chl? Minor cpy on edges of pyr blebs. Striated pyr crystals visible in middle of brassier blebs. 397.85-308.15 foliated chl SCH. MSK from 308.15-308.50. 308.50-308.88m chl SCH with pyr stringers cross cutting foliation and bands of brassy replacement pyr. 308.88-309.45 blebby pyr. 309.45-309.52m minor fault. 309.52-309.79 blebby pyr MSK. 309.79-310.10 Blebby brassy pyr with bio. Soft, flakes when scratched. Also clasts of amp SCH mixed with qtz at contact zone.	qtz	OVP	i	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				310.1	311.44	AMP	AMP	amp	qtz			FG	MA				Dark green massive amphibolite. Can't see dark individual grains on core surface, can't see foliation either. Can see bands of darker bio rich zones. Might be a SCH? Cut by qtz veins with brassy and shiny pyr. Diss/blebby brassy pyr increased down hole. From 310.9-311.44 foliation increases as it grades into a bio SCH. Bands of pyr parallel to foliation unlike next unit which contains no banded pyr.	qtz	OVP	s	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				311.44	313.43	SCH	SCH	qtz	bio			FG	FO	BA			Strongly silicified secondary bio SCH with bands of qtz containing well rounded and stretched grains. Could be remnants of granitoid intrusions that have been stretched or reworked qtz veins along planes of intense deformation. Minor GRA intrusions have been highly deformed and foliated MYL? Localized red garnets and low angle 20 TCA clay and qtz vein. No calcite.	qtz	OVP	s	chl	PER	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				313.43	314.59	MSK	MSK	qtz	pyr			FG	FO				Pyr in chl SCH. Foliated throughout zone. Pyr replacing cla silicate (from quick log). About 15% pyr. Most brassy pyr, shiny pyr increase towards end of zone. More banded, less blebby than above MSK. From 314.28-314.59 very little pyr, dark green chl SCH.	qtz	PAT	m	cla	PAT	m	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				314.59	323.07	SCH	SCH	qtz	mus			FG	FO	BL			Bleached SCH mus SCH with MGR intrusions. Clay alteration increases, mod qtz overprint and patchy weak to mod clay alteration. Localized brecciation and areas of increased sulphide veining. Foliation is vey regular, generally 70-80 TCA. Changes to 60 towards end of zone. MGR intrusions are FG to MG and generally follow foliation. Those that are MG are not foliation and tend to be more clay altered, pitted. Minor zone of sulphidation from 316.05-316.39m. Blebby brassy pyr intrudes across SCH at 40 TCA, about 30% pyr. UCTC gradational from chl SCH, lower contact broken. Gypsum as fracture fill from 317.55-317.94	qtz	PAT	m	cla	BAN	s	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				323.07	325.17	SCH	SCH	qtz	bio			FG	FO	BA			Increase in bio alteration. Bands of bio SCH alternating with bands of bleached ser and clay altered SCH. Minor cal stringers across zone, cal on fracture surfaces. Bands of strong clay alteration in bio SCH. MG MGR intrusion, strongly silicified with well developed fds grains, not foliated. DS sulphide stringers across zone. Sheeted veins from previous unit continue, very sporadic.	cla	PER	m	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				325.17	327.57	MGR	MGR	qtz	fds			MG					MGR alternating with bands of bio altered SCH. MGR intrudes into GRA from 325.24-325.33m, foliated at 70-80 TCA, same foliation as previous SCH unit. GRA is MG with a pitted surface, mod clay altered. 328.14-327.57 MGR alternates with SCH. MGR is foliated, MG-FG with stretched qtz grains. Sulphide veins across zone, increased from previous unit.	qtz	OVP	m	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				327.57	328.8	SCH	SCH	qtz	mus			FG	FO				Bleached muscovite SCH with localized brecciated zone with an increase in mineralization. DS sulphide stringers across zone. Clay alteration on fracture surfaces.	cla	PER	m				

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Nucleus	GRD09-153	K. Dodd		30-Aug-09				328.8	331.7	FAU	FAU	qtz	cla								Fault in clay altered SCH. Broken pebble to cobble size core. Minor bio bands, qtz veins and clay alteration on fracture surfaces.	qtz	OVP	m	bio	BAN	m	
Nucleus	GRD09-153	K. Dodd		30-Aug-09				331.7	335.46	SCH	SCH	qtz	bio			FG	FO	BL			Bleached SCH with zones of secondary bio and minor garnets. 332.17-332.22m PPF intrusion parallel to foliation. Grey aphanitic matrix with stretched fds phenos parallel to foliation. Very fine grained very evenly bleached zone from 334.56-334.96. Possibly foliated granitoid? Back into bio SCH after bleached zone, also contains altered garnets. Qtz veins parallel to foliation with minor clay altered bands.	cla	PAT	m	qtz	PAT	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				335.46	342.2	MGR	MGR	qtz	fds			CG	FO				Coarse grained foliated clay altered MGR. Pitted surface where fds have altered to clay. Foliation varies across zone from 30-50 TCA. Usually 50 TCA. Strong clay alteration from 337.8-339.2 right before a fault zone. Silicification increases down hole. 341.9-342.2m becomes FG and more siliceous to end of unit.	cla	PAT	s	qtz	PAT	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				342.2	348.5	SCH	SCH	qtz	bio			FG	FO	BL			Moderately silicified bio SCH with bleached zones. Increased clay alteration parallel to foliation, most strongly associated with bio rich zones and MGR intrusions. Bleaching increases down hole as silicification increases, clay alteration is more concentrated in MGR intrusions. Very fine pyr and sul stringers, some cross cutting foliation, others parallel to foliation. Appears to be two generations of MGR intrusions. The earlier ones are FG-MG, FO with stretched qtz grains parallel to foliation of SCH. Later intrusions are MG to CG, with strong clay alteration and very weak foliation. Most qtz grains are only slightly deformed. Patchy sulphides, locally banded parallel to foliation. LCTC gradational. Locally altered garnets.	cla	PAT	m	qtz	PAT	s	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				348.5	352.46	SCH	SCH	qtz	cla			FG	FO	FA			Faulted bleached SCH with about 30% MGR. Clay alteration across zone, alteration appears to effect both SCH and MGR equally. Silicification increases after 350.52, still brittlely faulted, broken fractured core. Sulphide veining increases downhole. Minor diss sul and sul stringers.	cla	PAT	s	qtz	PAT	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				352.46	352.57	FBX	FBX	qtz	cla				M	M	SCH		Clay altered BRX with SCH clasts. Fault is banded, dark grey/black more silicified, grades through to lighter sheds of grey to white clay altered part. Bands are 30 TCA. Clasts are angular to sub rounded, SCH. 5mm to 2cm clasts. Ductile deformation of fds? (clay altered rectangular grains) and stretched qtz at beginning of fault. Matrix supported with clay and qtz matrix. Grey part is more silicified, colour due to siliceous alteration. Diss pyr in clasts in silicified zone. Lower contact broken.	qtz	OVP	m	cla	BAN	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				352.57	355.53	SCH	SCH	qtz	cla			FG	FO	BA			Ser and clay altered SCH with bands of bio (dark blue grey). MGR intrusions parallel to foliation and well foliated. Minor bands of clay alteration at beginning of zone. Locally vuggy former veins at low angle to foliation, 10-20 TCA. Also low angle clay filled veins at same orientation. DS sulphide stringers across zone, bands of increased blebby sulphides roughly parallel to foliation.	qtz	OVP	m	cla	PAT	w	clay alteration in brecciated zone.
Nucleus	GRD09-153	K. Dodd		31-Aug-09				355.53	357.02	SCH	SCH	bio	qtz			FG	FO				Mafic bio SCH. Locally brecciated. Clast supported, bio SCH and qtz clasts. Pitted, clay matrix is altering out. Low angle clay veins as noted in above unit, 10-20 TCA. No DS sulphide stringer as above, concentrated bands of brassy pyr parallel to foliation. One 3mm band contains minor cpy. Upper and lower contacts gradational, parallel to foliation.	qtz	OVP	m				
Nucleus	GRD09-153	K. Dodd		31-Aug-09				357.02	357.81	SCH	SCH	qtz	mus			FG	FO	BL			Bleached mus SCH with minor KMGR bands parallel to foliation. MGR is foliated with slight pitted feel. Qtz veins parallel to foliation, upper and lower contacts gradational.	qtz	OVP	m	cla	PER	w	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				357.81	358.84	MGR	MGR	qtz	fds			FG	FO				Fine grained foliated MGR with diss sul blebs and sul stringers. Light grey patches are zones of increased silicification. Intensely silicified zone from 358.02-358.11 with increased diss sul, about 3%.	qtz	OVP	m	cla	PER	w	

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Nucleus	GRD09-153	K. Dodd		31-Aug-09				358.84	365.48	SCH	SCH	qtz	bio			FG	FO	BL			Highly strained Half bio SCH, half bleached SCH, alternating bands. MGR intrusions, about 30%. Increase in NS dendritic like sulphidation, also increase in sulphide stringers. MGR intrusions are weak to moderately clay altered, well foliated with diss sul and sul stringers cross cutting both SCH and MGR. Qtz bleb in MGR also cut by sulphides. Secondary bio alteration from 363.38-363.83m.	qtz	OVP	m	cla	PER	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				365.48	366.55	MGR	MGR	qtz	fds			FG	FO				FG foliated silicified MGR with DS sulphide stringers. Minor 3mm DS qtz veins cross cut foliations. Zone of bleached silicified SCH, fol 85 TCA towards end of unit. 7 cm of MGR then broken SCH, fault before next SCH unit begins. Ser and clay alteration on fracture surfaces.	qtz	OVP	m	ser	BAN	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				366.55	368.3	SCH	SCH	qtz	bio			FG	FO				Highly strained silicified bio SCH with bleached zones and clay and ser alteration on fracture surfaces. Minor cal vein and string clay alteration. Bleb of hem at 368.70m	qtz	OVP	m	cla	PER	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				368.3	370.1	SBX	SBX	qtz	cla				M	C	SCH		SCH and qtz clasts in SCH with acicular asp and blebs of pyr in siliceous matrix mixed with fine grained dark sulphides. Asp most prominent on margins of zone. Possible MGR mixed in with SCH clasts. Strongly clay altered fault at 369.90m, 30 TCA. Dark sulphides are part of the matrix, pyr and asp are diss across unit. Majority of the pyr is in one brecciated band, 2cm wide at 369.52-369.54m. Diss in matrix and might be replacing the clasts.	qtz	OVP	s	cla	PAT	m	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				370.1	384.27	SCH	SCH	qtz	bio			FG	FO	BL			Silicified bio chl SCH, highly strained with zones of intense silicification that has washed out the foliation. Minor bands of qtz parallel to foliation. MGR intrusions across zone, about 5-10cm. Increased clay alteration in these zones, stretched qtz parallel to foliation of SCH. Clay and ser on fracture surfaces. Sulphide stringers often parallel to foliation, hard to see. Steep angle veins contain pyr and minor cpy. Occasional asp stinger. Asp associated with pyr but not cpy. 382.72-384.27m secondary bio alteration, core more fractured. Not sure if stringers contain sulphides. No visible pyr.	qtz	OVP	s	cla	FFL	s	
Nucleus	GRD09-153	K. Dodd		31-Aug-09				384.27	385.87	BRX	BRX	qtz	ser				S	C	SCH		Brecciated zone showing brittle and ductile deformation. Clay alteration is flowing around qtz blebs. Wavey clay alteration cuts across entire zone, about 20 TCA, cross cuts SCH foliation. Qtz appears to have flooded SCH and been cut by low angle clay altered veins. Gradational upper and lower contacts. Minor diss acicular asp.	qtz	OVP	s	bio	PAT	m	EOH
Nucleus	GRD09-153	K. Dodd		31-Aug-09				385.87	391.89	SCH	SCH	qtz	mus			FG	FO	BL			Mus and bio SCH with bleached zones and zones of secondary bio alteration. Strongly silicified, and foliated with minor , 2-5cm MGR intrusions parallel to foliation. MGR is FG FO. Clay and ser on fracture surfaces. Mafic zone from 390.14-390.72m, possibly MYL? Grains of qtz stretched parallel to foliation and slightly rotated. Minor localized altered garnets. DS sulphide stringers cross cut foliation. Minor qtz veins with pyr and cpy. EOH							

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-153	62.31	62.39	pyr							
GRD09-153	65.9	66.1	pyr	0.1						
GRD09-153	77.28	80.75	pyr	0.5						
GRD09-153	91.74	94.13	pyr	2		0.1				blebby pyr and prt parallel to foliation.
GRD09-153	96.3	96.67						sox	0.1	
GRD09-153	96.67	97.67	pyr	0.5				sox	1.5	
GRD09-153	97.67	98.6	pyr	5						
GRD09-153	98.6	100.18	pyr	0.01						
GRD09-153	100.18	101.2	pyr	0.01						
GRD09-153	101.2	101.9	pyr	0.5						
GRD09-153	100.58	100.76	pyr	0.2			2			
GRD09-153	100.76	110.15	pyr	0.1			0.01			
GRD09-153	110.15	112.64	pyr	5						
GRD09-153	112.64	112.81	pyr	10						
GRD09-153	112.81	117.4	pyr	5						
GRD09-153	119.22	119.23	pyr	40	2		2			Massive pyr beside qtz vein and diss pyr with cpy in qtz vein. Pyr is different colours, some is brassier, some lookes fresher, possible multible phases of deposition? Qtz vein is 70 TCA.
GRD09-153	128.6	151.1	pyr	0.01						Diss pyr, patchy.
GRD09-153	151.1	157.43	pyr	0.01						
GRD09-153	157.43	157.94	pyr	0.01						
GRD09-153	157.94	158.85	pyx	0.1						
GRD09-153	158.85	159.95	pyr	0.01						
GRD09-153	159.95	161.2	pyr	25						Weakly banded pyr, also as blebs and disseminated around qtz grains. Bands about 70, parallel to foliation.
GRD09-153	166.93	167.4	pyr	0.2						
GRD09-153	168.6	169.16	pyr	0.01						
GRD09-153	169.16	173.41	pyr	0.01						
GRD09-153	173.41	181.28	pyr	0.01						
GRD09-153	181.28	182.8						sul	0.1	patchy diss sul.
GRD09-153	182.8	193.22	pyr	0.1						
GRD09-153	193.22	199.6	pyr	0.1						diss pyr,
GRD09-153	199.6	200.64						sul	0.01	
GRD09-153	200.64	201.45	pyr	0.01						diss pyr associted with increased bio altered zones.
GRD09-153	201.45	205.79						sul	0.01	
GRD09-153	205.79	207.88	pyr	0.05				sul	0.05	
GRD09-153	207.88	211.84	pyr	0.1						
GRD09-153	211.84	213.93	pyr	0.01						
GRD09-153	216.26	216.92	pyr	0.2						
GRD09-153	216.92	220.41	pyr	0.5						diss pyr
GRD09-153	220.41	220.69	pyr	1						blebby pyr in brecciated zone.
GRD09-153	220.69	223.38	pyr	0.1						
GRD09-153	223.38	224.26	pyx	0.5						
GRD09-153	224.26	224.65						sul	0.01	
GRD09-153	227.85	230.75	pyr	0.01						
GRD09-153	230.75	231.41	pyr	0.1						
GRD09-153	231.41	233.53	pyr	0.01						trace pyr, most visible in MGR.
GRD09-153	233.53	235.78	pyr	0.1						
GRD09-153	235.78	238.1	pyr	0.01						
GRD09-153	238.1	239.56	pyr	0.5						
GRD09-153	239.56	239.92	pyr	0.01						
GRD09-153	239.92	240.74	pyr	3						
GRD09-153	240.74	241.54	pyr	0.5			0.01			blebby pyr
GRD09-153	241.54	241.56	pyr	40						Massive pyr at contact o SCH and PPF
GRD09-153	241.56	245.07	pyx	0.5						
GRD09-153	245.07	246.43	pyr	0.01						
GRD09-153	246.43	248	pyx	1.5						changes from pyx to pyr towards end of zone.
GRD09-153	248	249.91	pyr	0.01						
GRD09-153	249.91	251.05	pyr	1.5						
GRD09-153	251.05	253.93	pyr	0.05						
GRD09-153	255.9	258.55	pyr	0.01						
GRD09-153	258.55	261.23	pyr	0.01						

Hole_ID	Min_From	Min_To	pyrite	Pyrite %	Cpy%	Prt%	Asp%	Other	Other%	Mineralization Description
GRD09-153	261.23	261.59	pyr	0.5						diss and banded pyr parallel to foliation
GRD09-153	261.59	263.53	pyr	0.01						
GRD09-153	263.53	263.54	pyr	0.1						
GRD09-153	263.54	263.8	pyr	25						
GRD09-153	263.8	263.89	pyr	3						
GRD09-153	263.89	266.12	pyr	0.01						
GRD09-153	266.12	266.33	pyr	10						blebby tarnished pyr
GRD09-153	266.33	269.05	pyx	0.1						
GRD09-153	269.05	273.07	pyr	0.01						
GRD09-153	273.07	274.9	pyr	0.1						
GRD09-153	274.9	276.2	pyr	0.01						
GRD09-153	276.2	276.76	pyx	0.1						
GRD09-153	276.76	293.76	pyr	0.05						find diss pyr throughout zone. Local concentrations of pyr parallel to foliation.
GRD09-153	293.76	294.6	pyr	0.01						
GRD09-153	294.6	305.14	pyr	0.01						
GRD09-153	305.14	306.26	pyr	0.2						
GRD09-153	306.26	306.93	pyr	3						
GRD09-153	306.93	307.85	pyr	0.01						
GRD09-153	307.85	308.15	pyr	1						diss pyr
GRD09-153	308.15	308.5	pyr	25						
GRD09-153	308.5	308.88	pyr	5						
GRD09-153	308.88	309.79	pyr	25	0.1					
GRD09-153	309.79	310.1	pyr	20						mix of brassy and shinier pyr, minor spike in mag.
GRD09-153	310.1	311.44	pyr	5						Diss and blebby pyr, in bands parallel to foliation towards end of unit.
GRD09-153	311.44	313.43	pyr	0.01						
GRD09-153	313.43	314.28	pyr	15						
GRD09-153	314.28	314.59	pyr	1						
GRD09-153	314.59	316.05	pyr	0.1						
GRD09-153	316.05	316.39	pyr	30						
GRD09-153	316.39	317.55	pyr	0.1						
GRD09-153	317.94	319.93	pyr	0.1						
GRD09-153	319.93	323.07	pyr	0.2						
GRD09-153	323.07	325.17	pyr	0.01						
GRD09-153	325.17	327.57	pyr	0.1						
GRD09-153	327.57	328.02	pyr	0.1						
GRD09-153	328.02	328.17	pyr	0.5	0.1					
GRD09-153	328.17	328.8	pyr	0.3						
GRD09-153	331.7	335.47	pyr	0.01						
GRD09-153	335.47	341.9						sul	0.05	
GRD09-153	341.9	342.2	pyx	0.1						
GRD09-153	344.29	344.69	pyr	0.1						minor banded pyr along foliation
GRD09-153	345.13	345.56	pyr	0.4				sul	0.1	
GRD09-153	346.29	347.81						sul	0.01	
GRD09-153	348.8	351.29						sul	0.01	
GRD09-153	351.46	353.57	pyr	0.01						
GRD09-153	353.57	353.6	pyx	0.1						
GRD09-153	353.6	353.7	pyx	5						
GRD09-153	353.7	355.53						sul	0.5	
GRD09-153	355.53	357.02	pyr	0.01						
GRD09-153	357.02	357.81						sul	0.01	
GRD09-153	357.81	358.02						sul	0.01	
GRD09-153	358.02	358.11						sul	3	
GRD09-153	358.11	358.54						sul	0.1	
GRD09-153	358.54	361.02	pyr	1				sul	1	
GRD09-153	361.02	361.16	pyr	5						
GRD09-153	361.16	365.48	pyr	1				sul	1	
GRD09-153	365.48	366.55	pyr	0.5						
GRD09-153	366.55	368.3	pyr	0.1						
GRD09-153	368.3	370.1	pyr	5			10			
GRD09-153	370.1	384.27	pyr	0.75						
GRD09-153	384.27	385.87	pyr	0.01			0.01			
GRD09-153	385.87	391.89	pyr	0.05						EOH

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	0	11.65	40										
GRD09-153	11.65	12.1	30				FAU						Strongly altered, pitted core.
GRD09-153	12.19	12.48					FAU						Part of above fault. Strongly clay altered with muscovite.
GRD09-153	12.48	21.15	50										
GRD09-153	21.15	21.55					DYK	QTZ Vein					Massive broken qtz vein with trace sox and DS lim stringers. Can't count, core too broken. 2cm zone of highly clay and hem altered SCH with garnets. Upper and lower contacts broken, likely parallel to foliation. Oxidation on fracture surfaces.
GRD09-153	21.55	22.7	50										
GRD09-153	38.82	39.62	50										
GRD09-153	39.7	45.72	50										foliation varies from 40-60 TCA locally.
GRD09-153	45.72	45.721					CTC	SCH-FAU	50				
GRD09-153	48.4	48.67	40										
GRD09-153	48.67	48.77					DYK	MGR					Highly silicified MGR? Can see MG qtz clasts in silicified zone.
GRD09-153	49.47	50.2	40										
GRD09-153	57.1	60.64	40										Locally varies between 30-50 TCA
GRD09-153	60.64	60.96					FAU						Minor strongly clay altered fault
GRD09-153	60.96	62.68	40										
GRD09-153	62.68	66.98	40										
GRD09-153	66.98	67.06					FAU						Minor strongly clay altered fault in SCH.
GRD09-153	67.06	69.84	40										
GRD09-153	69.84	70.36	40	220	356	30							
GRD09-153	70.36	70.59	30	220	341	36							Lower angle qtz veins intrude in this zone.
GRD09-153	70.59	73.15	40										
GRD09-153	73.15	73.5	50										
GRD09-153	73.5	78.03	30										
GRD09-153	78.03	80.18	30	230	351	42							
GRD09-153	80.18	80.39	30										
GRD09-153	80.39	82.3	60										
GRD09-153	82.3	84.1	30										
GRD09-153	84.1	85.92	30	280	27	73							
GRD09-153	86.54	86.541					CTC	SCH-QTZ	40				LCTC of qtz vein and SCH
GRD09-153	86.541	88.39	40										
GRD09-153	88.39	90	70										
GRD09-153	90	90.9	90										
GRD09-153	91.44	91.74					FAU						Fractured and broken SCH with increased clay alteration on fracture surfaces.
GRD09-153	91.74	93.21	40										
GRD09-153	93.21	94.7	60	50	116	63							
GRD09-153	94.7	94.75					FAU						Minor fault
GRD09-153	94.75	96.3	50										
GRD09-153	96.3	96.301					CTC	SCH-SCH	50				
GRD09-153	96.301	96.67					FAU						
GRD09-153	96.88	97.02	60	110	138	39							
GRD09-153	97.02	97.54	40	120	170	42							
GRD09-153	97.54	98.03	50	130	160	32							
GRD09-153	100.18	100.58	30										
GRD09-153	100.58	101.02	50										
GRD09-153	101.02	101.09					BRX		50				Brecciated SCH along qtz vein. Clast supported angular SCH with matrix of clay and fine dark sulphides. Large pyr vein associated with mag parallel to brecciated zone.
GRD09-153	101.09	101.41	30										
GRD09-153	101.41	101.92	50										
GRD09-153	101.92	103.2					DYK	MGR					foliated FG MGR in SCH. UCTC is strongly clay altered, minor fault.
GRD09-153	103.2	103.201					CTC	SCH-MGR	30				LCTC of MGR dyke
GRD09-153	103.201	103.34	30										
GRD09-153	103.34	103.93					FAU						Fault around qtz vein. Qtz vein is brittlely deformed, SCH is strongly clay altered with lenses of qtz.
GRD09-153	103.93	106.68	50				FAU						alternating faults and competent rock. Foliation is mostly 50 TCA.
GRD09-153	106.68	106.97	30										
GRD09-153	106.97	107.3					FAU						mod clay altered wavey foliation in fau.
GRD09-153	107.3	108.93	70										
GRD09-153	108.93	109.2					FAU						fault around qtz veins. Undulating foliation, qtz vein 50 TCA.
GRD09-153	110.15	110.151					CTC	SCH-QFP	30				contact is broken, but appears parallel to foliation.

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	112.1	113	50										very weak foliation 50 TCA. Foliated zone ends along clay vein 50 TCA
GRD09-153	117.4	117.401					CTC	SCH-QFP	90				LCTC with SCH.
GRD09-153	117.401	117.59	90	0	180	90							
GRD09-153	117.59	117.72	60	250	42	39							
GRD09-153	118.8	118.81					CTC		80	250	74	38	contact of buggy zone and foliated SCH
GRD09-153	118.81	119.22	70	220	61	27							
GRD09-153	119.22	119.27					DYK		70	190	80	21	qtz vein with sulphides
GRD09-153	119.27	120.07	70	235	58	32							
GRD09-153	120.07	120.3	50										
GRD09-153	120.3	120.8	90										
GRD09-153	120.8	121.91					FAU						increased clay alteration in oxide zone. Broken mod clay altered SCH.
GRD09-153	121.91	122.22	90										
GRD09-153	122.94	123.2					BRX		60				Clast supported BRX. Highly oxidized, vuggy. Possible QFP clasts. 122.94-123.02 qtz vein with lim fractures cross cutting vein. Goethite on fracture surface.
GRD09-153	123.2	123.5					BRX		50				Black qtz with blebs of pyr? Qtz?
GRD09-153	123.5	124.9	80										Varies from 70-8- TCA with minor zones of undulating foliation.
GRD09-153	124.9	125.2					FAU						broken SCH, increase in clay alteration. Brittlely deformed qtz veins parallel to foliation cross cut by oxidized clay veins.
GRD09-153	125.2	128.6	90										minor zone of 60 TCA. Varies mostly form 80-90 TCA.
GRD09-153	128.6	128.9	90										
GRD09-153	128.9	129.08					FAU						Increased clay alteration around 4cm band of highly strained and silicified MGR? 80 TCA with foliated qtz grains.
GRD09-153	129.08	130.25	90										
GRD09-153	130.25	132.14	80										5cm MGR dyke at 70 TCA with foliated qtz grains.
GRD09-153	132.14	132.4					FAU		80				Foliation 80 TCA, strongly clay alt zone, can stick a pencil through it.
GRD09-153	132.4	133.5	80										
GRD09-153	133.5	133.7	85	190	88	35							
GRD09-153	133.7	136.06	80										
GRD09-153	136.06	136.82	80				FAU						Broken clay altered MYL 80 TCA. Foliation varies from 70-80 TCA
GRD09-153	136.82	138.75	80										
GRD09-153	138.75	138.99	70	90	120	44							
GRD09-153	138.99	140	90	0	90	40							
GRD09-153	140	142.22	80										
GRD09-153	142.22	142.54	70										
GRD09-153	142.54	143.23	30										Varies from 20-30 TCA
GRD09-153	143.23	143.4	40										
GRD09-153	143.4	149.28	60										
GRD09-153	149.28	151.1	70										Zones of 50 TCA
GRD09-153	151.1	151.48	70										
GRD09-153	151.48	151.6					BRX		40				Minor brecciated zone around pyr and asp vein. Increased chl and clay alteration. Weakly brittlely fractured SCH, clast supported, clay matrix.
GRD09-153	151.6	152.63	80				FAU						Increased clay alteration in fault. Mode to strongly clay altered. SCH is 80 TCA. Green ser alteration on fracture surface.
GRD09-153	152.63	152.82	80	160	97	31							
GRD09-153	152.82	155	70				FAU						Fault with black qtz vein. Mod clay alteration
GRD09-153	155	155.45	80	160	97	31							
GRD09-153	155.45	155.451					CTC	SCH-MGR	80				UCTC
GRD09-153	155.451	155.67	80				DYK	MGR					Weakly foliated MGR, stretching of qtz grains.
GRD09-153	155.67	155.671					CTC	SCH-MGR	70	155	112	23	LCTC with SCH.
GRD09-153	155.671	155.78	70	155	112	23							
GRD09-153	155.78	155.83					DYK	QTZ Vein	80	140	102	33	Massive qtz vein cut by sulphide stringers
GRD09-153	155.83	156.38	60	20	101	69		QTZ Vein					qtz veins disrupt foliation, measured qtz vein.
GRD09-153	156.38	157.43	70										
GRD09-153	157.43	157.94	80										
GRD09-153	157.94	158.85	80										
GRD09-153	158.85	159.95	85										
GRD09-153	160.27	160.39					FAU	60					Increased clay alteration in bands through pyr rich zone.

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	160.46	160.52					BRX	40					qtz vein with brecciated pieces of MYL with pyr in clasts. Also diss pyr in qtz vein. Highly silicified chalcedony vein parallel to breccia. Breccia is matrix supported with sub-rounded clasts.
GRD09-153	160.93	161.15					BRX						weakly crackle brecciated qtz rich zone. Clast supported, fine sulphides in matrix. Stringers of pyr cut zone. 2cm qtz vein with pyr noted.
GRD09-153	161.2	161.4	70	160	108	22							
GRD09-153	161.4	161.82	90										
GRD09-153	161.82	164.31	90				FAU						
GRD09-153	164.31	164.54					BRX		30				qtz/chalcedony? Vein at 30 TCA intrudes bio rich MYL. Increased clay alteration, faulted, convoluted foliation.
GRD09-153	164.54	166.93	90				FAU						
GRD09-153	166.93	167.4	90										
GRD09-153	167.4	168.6	85	180	90	35							
GRD09-153	168.6	168.601					CTC	SCH-MYL	90				LCTC
GRD09-153	168.601	169.16	90										
GRD09-153	169.16	169.25					FAU		20				Fault in Bio SCH. Strong clay alteration, fault is 20 TCA.
GRD09-153	169.3	169.301					CTC	SCH-MGR	60				UCTC of MGR dyke.
GRD09-153	169.301	169.41					DYK	MGR					Weakly foliated MGR with minor diss pyx
GRD09-153	169.41	169.411					CTC	SCH-MGR	60				LCTC of MGR dyke
GRD09-153	169.53	169.531					CTC	SCH-MGR	70				UCTC of MGR dyke.
GRD09-153	169.531	169.59					DYK	SCH-MGR					Weakly foliated MGR with minor diss pyx
GRD09-153	169.59	169.591					CTC	SCH-MGR	80				LCTC of MGR dyke
GRD09-153	170.39	170.84	70	150	114	24							
GRD09-153	170.84	173.41	80										Ranges from 70-85 TCA
GRD09-153	173.41	180.28	90										varies from 80-90 TCA
GRD09-153	180.28	180.56	70	240	58	34							
GRD09-153	180.56	181	80	200	83	31							
GRD09-153	181	181.28	75	72	29								
GRD09-153	181.28	182.8	80	190	87	30							
GRD09-153	182.8	182.88					BRX						crackle breccia in MYL. Qtz and bio matrix around angular clasts of bleached MYL.
GRD09-153	183.14	185.05	80										
GRD09-153	185.05	187.62	80	190	87	30							checked measurements in three places
GRD09-153	187.62	188.54	80	140	102	33							checked measurements in two places
GRD09-153	188.54	189.54	80	200	83	31							
GRD09-153	189.54	189.7	70	200	72	22							
GRD09-153	189.7	190	80	190	87	30							
GRD09-153	190.8	191.72	90	0	90	40							
GRD09-153	191.72	193.22	80	90	105	41							
GRD09-153	193.22	194.54	80	130	104	34							
GRD09-153	194.54	195.59	70	130	121	31							
GRD09-153	195.59	197.71	70	150	114	24							Checked three places
GRD09-153	197.71	197.711					CTC	GRA-MYL	70	150			UCTC CG GRA with elongated hornfels?
GRD09-153	197.78	197.781					CTC	GRA-MYL	70	150			LCTC of MYL-GRA
GRD09-153	197.781	198.68	70	150	114	24							
GRD09-153	198.68	199.6	80	190	87	30							
GRD09-153	199.6	199.601					CTC	MGR-MYL	90				UCTC
GRD09-153	200.64	200.641					CTC	MGR-MYL	90				LCTC
GRD09-153	200.641	201.15	80										
GRD09-153	201.15	203.16	70	200	72	22							
GRD09-153	203.16	203.9					BRX						weak crackle breccia with 20 TCA pyr cal and qtz veins. Qtz and clay as matrix.
GRD09-153	204.16	204.38	80	140	102	33							
GRD09-153	204.38	204.381					CTC	MGR-MGR	60	80	128	53	UCTC
GRD09-153	204.381	204.44	80				DYK	MGR					foliated MGR intruding MGR
GRD09-153	204.44	204.441					CTC	MGR-MGR	60	80	128	53	LCTC
GRD09-153	204.441	205.03	80	140	102	33							
GRD09-153	205.03	207.88	70	130	121	31							
GRD09-153	207.88	208.24	70	130	121	31							
GRD09-153	208.24	208.43	80	130	104	34							
GRD09-153	208.43	209.94	70	120	122	34							
GRD09-153	209.94	210.53	80	120	105	36							
GRD09-153	210.53	211.11	70	130	121	31							
GRD09-153	211.11	211.84	80	150	100	32							
GRD09-153	211.84	212.47	80										
GRD09-153	212.47	213.69	70										
GRD09-153	213.69	213.93	90										
GRD09-153	213.93	214.34	80										

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	214.34	214.41					BRX		40				qtz vein cutting SCH, crackle brecciation around qtz vein. Minor pieces of qtz and small fragment of SCH in vein. Pyr stringers parallel to brecciation.
GRD09-153	214.41	216.92	80										
GRD09-153	216.92	218.53	90	0	90	40							
GRD09-153	218.53	218.531					CTC	SCH-GRA	80	145	101	32	UCTC
GRD09-153	218.531	218.7					DYK	GRA					MG-CG GRA, not foliated
GRD09-153	218.7	218.701					CTC	SCH-GRA					LCTC broken
GRD09-153	218.701	220.41	80										
GRD09-153	220.41	220.69					BRX						Crackle breccia in SCH with larch zone of custard yellow silicified clay. Qtz vein cuts zone, contains SCH clasts, sub-rounded about 5mm, and pieces of silicified clay. Blebby pyr in this zone.
GRD09-153	220.69	222.54	80										355.53
GRD09-153	222.54	222.541					CTC	SCH-MGR	80				UCTC
GRD09-153	222.541	222.7	80				DYK	MGR					FG foliated MGR, almost massive, with stretched qtz grains.
GRD09-153	222.7	222.701					CTC	SCH-MGR	50				LCTC partially follows foliation at 80 TCA
GRD09-153	222.701	223.38	80										
GRD09-153	223.38	225.61	80										
GRD09-153	225.61	226.25	60										
GRD09-153	226.25	226.61	70										
GRD09-153	226.61	226.68	70	100	121	41							
GRD09-153	226.68	227.76	70										
GRD09-153	227.76	227.85					FAU						clay altered broken core in SCH before highly siliceous chl bio MYL
GRD09-153	227.85	228.11	90										
GRD09-153	228.11	229.18	80										
GRD09-153	229.18	229.181					CTC	MGR-MYL	90				UCTC
GRD09-153	229.181	229.26	90				DYK	MGR					foliated MGR with qtz phenos
GRD09-153	229.26	229.261					CTC	MGR-MYL	90				LCTC
GRD09-153	229.261	230.75	70										
GRD09-153	231.41	231.411	80										sharp LCTC of GRA-SCH, parallel to foliation.
GRD09-153	231.411	231.7	85										
GRD09-153	231.7	231.83	50				DYK	SCH-MGR	40				Foliated MGR cross cut by sulphide stringers. FG at upper contact, MG at lower contact
GRD09-153	231.83	231.93	50										
GRD09-153	233.18	233.54	50										
GRD09-153	234.23	234.231	60				CTC		60				UCTC
GRD09-153	234.231	234.29					DYK	MGR					Clay altered weakly foliated MGR with qtz stringers cross cutting MGR.
GRD09-153	234.29	234.291					CTC		60				LCTC
GRD09-153	234.62	234.76	30										
GRD09-153	234.76	235.1	60										
GRD09-153	235.1	238.1	80										
GRD09-153	238.1	239.56					FAU						broken core, minor intensely clay altered zone, about 5cm. FG to MG pitted clay altered MGR with qtz stringers and one pyr stringer cutting intrusion.
GRD09-153	240.74	241.56	80										
GRD09-153	241.56	241.561					CTC	SCH-PPF	70				UCTC of PPF and SCH with massive pyr
GRD09-153	243.93	244.07					BRX						BRX above fault zone. Rounded PPF clasts in clay altered PPF matrix.
GRD09-153	244.07	244.21					FAU		40				clay altered PPF with minor pyr.
GRD09-153	244.21	244.33					BRX		40				PPF clast ins qtz and clay matrix with minor diss fine dark sulphides
GRD09-153	245.07	245.071					CTC	SCH-PPF	50				LCTC PPF and SCH
GRD09-153	245.071	245.36	70										
GRD09-153	245.36	245.7	60										
GRD09-153	245.7	245.701					CTC	SCH-MGR	60				UCTC
GRD09-153	245.701	245.79	60				DYK	MGR					Foliated MGR
GRD09-153	245.79	245.791					CTC	SCH-MGR	60				LCTC
GRD09-153	248	248.001					CTC	SCH-PPF	50				
GRD09-153	248.001	248.41	80										
GRD09-153	248.41	248.54	70	230	59	31							
GRD09-153	248.54	248.58	70										
GRD09-153	248.58	248.7					BRX						auto breccia with clay matrix. Angular SCH clasts, 4mm to 1cm. Qtz and clay matrix
GRD09-153	248.7	249.19	70										
GRD09-153	249.19	249.191					CTC	SCH-MGR	70				UCTC
GRD09-153	249.191	249.29					DYK	MGR	70				FG foliated MGR with clay alteration.
GRD09-153	249.29	249.291					CTC	SCH-MGR	70				LCTC

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	249.291	249.45					BRX						Vug filled with SCH clasts 2mm to 8mm in clay qtz matrix.
GRD09-153	249.45	249.91	70										
GRD09-153	251.05	251.051					CTC	SCH-PPF	50				LCTC of PPF to brecciated SCH. Increased clay alteration.
GRD09-153	251.051	251.23					BRX		40				SCH and MGR clast supported breccia at contact of PPF, SCH and MGR intrusion. MGR clasts foliated, in qtz matrix. SCH clasts incorporated into MGR. SHC clasts still mainly in original orientation, 80 TCA. Brecciation intrudes SCH at 40 TCA.
GRD09-153	251.23	251.231					CTC	SCH-MGR	80				UCTC
GRD09-153	251.231	251.86	80				DYK	MGR					FG foliated MGR with stretched qtz, diss sulphides and sulphide stringers, NS.
GRD09-153	251.86	251.861					CTC	SCH-MGR	80				LCTC
GRD09-153	251.861	253.13	80										
GRD09-153	253.13	253.131					CTC	SCH-MGR					UCTC
GRD09-153	253.131	253.61	80				DYK	MGR					FG-MG MGR. More clay altered than previous intrusion, pitted, zone of strong clay alteration at 250.5m. Increase in diss sulphides. Foliated.
GRD09-153	253.61	253.611	90										
GRD09-153	253.611	253.93	80										
GRD09-153	255.59	255.591					CTC	SCH-MGR	50				
GRD09-153	255.591	255.64	90				DYK	MGR					with FG foliation MGR,
GRD09-153	255.64	255.641					CTC	SCH-MGR	70				
GRD09-153	255.9	256.24	90										
GRD09-153	256.24	256.241					CTC	SCH-MGR	60				UCTC
GRD09-153	256.241	256.3					DYK	MGR	80				White highly siliceous FG MGR, foliated. No sulphides, sulphide stringers. Another bleb of MGR follows this one, irregular contacts.
GRD09-153	256.3	256.301					CTC	SCH-MGR	60				LCTC
GRD09-153	256.301	256.48	70										
GRD09-153	256.48	256.481					CTC	SCH-MGR	80				UCTC
GRD09-153	256.481	256.52	80				DYK	GRA					Siliceous, MG foliated GRA. Gray/green, minor mafics, could be MGR.
GRD09-153	256.52	256.521					CTC	SCH-MGR	80				LCTC
GRD09-153	256.521	257.37	90										
GRD09-153	257.37	257.371					CTC	SCH-GRA	85				UCTC
GRD09-153	257.371	257.49					DYK	GRA					MG-CG GRA, foliated with oxidation on clay altered fds. Matrix looks orange, pitted surface. Minor bio, mod clay alteration.
GRD09-153	257.49	257.491					CTC	SCH-GRA	90				
GRD09-153	257.491	257.53	90										
GRD09-153	257.53	257.531					CTC	SCH-GRA	90				
GRD09-153	257.531	257.73	70				DYK	GRA					MG-FG GRA, minor bio, weak clay alteration. Better foliation than previous GRA, becomes better foliated down hole.
GRD09-153	257.73	257.731					CTC	SCH-GRA	80				
GRD09-153	257.731	258.55	90										
GRD09-153	258.55	259.08	80										
GRD09-153	259.08	259.18					FAU						Minor fault in bio SCH, strongly clay altered
GRD09-153	259.18	263.53	80										
GRD09-153	263.53	263.89	90										
GRD09-153	263.89	265.25	90										
GRD09-153	265.25	265.251					CTC	SCH-MGR	60				
GRD09-153	265.251	265.45	80				DYK	MGR					weakly foliated MGR
GRD09-153	265.45	265.451					CTC	SCH-MGR	60				
GRD09-153	265.451	266.12	70										
GRD09-153	266.12	266.33	80										
GRD09-153	266.33	266.331					CTC	SCH-MGR	60				
GRD09-153	266.331	267.33	60										MGR
GRD09-153	267.33	267.75	90										SCH
GRD09-153	267.75	267.84	80										MGR
GRD09-153	267.84	267.89	90										SCH
GRD09-153	267.89	268.08	80										MGR
GRD09-153	268.08	268.24	80										SCH
GRD09-153	268.24	269.05	70										MGR
GRD09-153	269.05	271.12	85										
GRD09-153	271.12	271.27					DYK	GRA					Foliated GRA, UCTC broken
GRD09-153	271.27	271.271					CTC	SCH-GRA					LCTC
GRD09-153	271.271	273.07	85										
GRD09-153	273.07	273.78	80										
GRD09-153	273.78	274.32	85	100	98	39							
GRD09-153	274.32	274.9	85										
GRD09-153	274.9	275.2					FAU						strongly clay altered fault in bio SCH

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	275.2	276.14	80										
GRD09-153	276.14	276.21					BRX						Minor BRX at contact. Convoluted foliation and blebs of qtz.
GRD09-153	276.76	276.761					CTC	SCH-MGR	60				LCTC, of MGR to SCH. UCTC is undulating
GRD09-153	276.761	277.42	80	210	80	32							
GRD09-153	277.42	282.75	85										
GRD09-153	282.75	283.9	70										
GRD09-153	283.9	286	85										
GRD09-153	286	286.001					CTC	SCH-MGR	60				UCTC
GRD09-153	286.001	286.87					DYK	MGR					FG to MG weakly foliated MGR with stringers.
GRD09-153	286.87	287.871					CTC	SCH-MGR	50				LCTC
GRD09-153	287.871	293.2	70										
GRD09-153	293.2	293.76	60										
GRD09-153	293.76	293.761					CTC	SCH-GRA	20				UCTC of SCH-GRA along braided bio? Very fine purple colour, stringers.
GRD09-153	293.761	294.601					CTC	SCH-GRA	20				LCTC along cal stringer
GRD09-153	294.601	295.66	60										
GRD09-153	295.66	296.05	85										
GRD09-153	296.05	296.051					CTC	SCH-MGR	80				UCTC
GRD09-153	296.051	296.34	80				DYK	MGR					Foliated MGR with minor DS sulphide stringers
GRD09-153	296.34	296.341					CTC	SCH-MGR	80				LCTC
GRD09-153	296.341	299.38	70										
GRD09-153	299.38	300.25	30										Increased qtz veining and chl, greener core
GRD09-153	300.25	303.56	85										
GRD09-153	303.56	303.76					BRX						Minor brecciated zone. Increased clay alteration. 5mm-1cm SCH clasts, clast supported in qtz and clay matrix
GRD09-153	303.76	304.8	80										
GRD09-153	304.8	305.14	60										
GRD09-153	305.14	305.4	40										
GRD09-153	305.4	305.86	50										
GRD09-153	305.86	306.26	60										
GRD09-153	306.26	306.5	90										
GRD09-153	306.93	307.85	80										foliation in MGR
GRD09-153	307.85	308.15	90										
GRD09-153	311.15	311.22					DYK	MGR					Minor MGR intrusion
GRD09-153	311.22	311.44	60										
GRD09-153	311.44	311.74	20										
GRD09-153	311.74	312.05	80										
GRD09-153	312.05	312.051					CTC	SCH-GRA	80				
GRD09-153	312.051	312.09	70					GRA					Foliated granite with stretched qtz porphyroblasts
GRD09-153	312.09	312.091					CTC	SCH-GRA	70				
GRD09-153	312.091	312.93	70										
GRD09-153	312.93	313.43						GRA					Foliated GRA mixed with minor bands of bio SCH.
GRD09-153	313.43	314.59	80										
GRD09-153	314.59	316.05	70										
GRD09-153	316.05	316.39	40										
GRD09-153	316.39	317.55	70										
GRD09-153	317.55	317.94					BRX						Crackle breccia in SCH. Gypsum and clay as fracture fill
GRD09-153	317.94	321.57	70										
GRD09-153	321.57	323.07	60										
GRD09-153	323.07	323.66	70										
GRD09-153	323.66	323.661					CTC	SCH-MGR					UCTC
GRD09-153	323.661	323.86					DYK	MGR					MG MGR with well developed fds grains
GRD09-153	323.86	323.861					CTC	SCH-MGR					LCTC
GRD09-153	323.861	325.17	70										
GRD09-153	326.4	326.95	60										
GRD09-153	327.57	328.02	50										
GRD09-153	328.02	328.17					BRX						Sub rounded SCH and qtz clasts in a clay and qtz matrix, clast supported. Pyr vein at upper contact of BRX, diss cpy in BRX
GRD09-153	328.17	332.17	70										
GRD09-153	332.17	332.22	70				DYK	PPF					PPF parallel to foliation
GRD09-153	332.22	335.47	50										varies from 50-60 TCA
GRD09-153	335.47	335.471					CTC	SCH-MGR	60				UCTC of MGR unit.
GRD09-153	339.2	339.64					FAU						Clay altered fault with ser and calcite on fracture surface. Fracture parallel TCA.
GRD09-153	342.2	342.201					CTC	SCH-MGR	60				UCTC of MGR to SCH zone, contact between FG MGR and CG clay altered MGR
GRD09-153	342.201	342.41					DYK	MGR					Clay altered MGR dyke
GRD09-153	342.41	342.411					CTC	SCH-MGR	60				

Hole_ID	Structure From	Structure To	foliation CA	Beta	foliation strike	foliation dip	Struct_type1	Struct_subtype1	Struct_CA1	Struct_Beta1	Struct_strike1	Struct_dip1	Structure Description
GRD09-153	342.411	343.67	60										
GRD09-153	343.67	344.29	80										
GRD09-153	344.29	346.24	70										
GRD09-153	346.24	346.92					DYK	SCH-MGR					Clay altered MGR, second part of dyke is MG-FG and more siliceous
GRD09-153	346.92	348.5	70										
GRD09-153	348.69	348.85	70										
GRD09-153	348.85	348.99	80				DYK	MGR					Foliated clay altered MGR. MG minor DS sulphide stringers.
GRD09-153	349.3	349.45					DYK	MGR	40				strong clay alteration at beginning of intrusion, 40 TCA. Looks like orientation of actual fault. MGR, mod clay alteration. Pitted, fds altered to clay, qtz remain.
GRD09-153	350.08	350.37					DYK	MGR					Foliated clay altered MGR. MG minor DS sulphide stringers.
GRD09-153	350.37	350.53	80										
GRD09-153	350.53	350.8					DYK	MGR					Silicified foliated MG MGR with increased sulphide stringers. Sulphide stringers with 5mm selvage.
GRD09-153	351.16	351.29	80				DYK	MGR					Foliated strongly silicified MGR with very minor sulphides
GRD09-153	351.46	351.461					CTC	SCH-FBX	40				
GRD09-153	352.57	353.27	80				FAU						bands of increased clay alteration, minor faulting.
GRD09-153	353.27	355.53	70										
GRD09-153	355.53	355.77					BRX						minor brx in bio SCH. Bio and qtz clasts, clast supported, clay matrix
GRD09-153	355.77	356.37	70										
GRD09-153	356.37	357.02	80										
GRD09-153	357.02	357.81	70										
GRD09-153	357.81	358.54	80										
GRD09-153	358.54	359.66	70										
GRD09-153	359.66	365.48	60										
GRD09-153	365.48	366.55	70										
GRD09-153	369.3	369.46	80										
GRD09-153	369.46	369.62					BRX	40					
GRD09-153	369.62	370.1	40										
GRD09-153	370.1	374.45	70										
GRD09-153	374.45	375.35	80										
GRD09-153	375.35	376.1	90										
GRD09-153	376.1	381	80										
GRD09-153	381	384.27	70										
GRD09-153	384.27	391.89	60										EOH

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	0	11.65	5	5	1	NS	lim	lim																		Very few lim veins, no preferred direction.
GRD09-153	11.65	15.57	15	1	15	NS	lim	lim																		
GRD09-153	15.57	18.44	50	50	1	SP	lim	lim				30				NS	lim	lim								SP veins range from 30-50, mostly 30.
GRD09-153	36.45	36.58	5	5		CE	hem	lim																		lim and hem infill
GRD09-153	36.58	36.7	10	10	1	NS	hem	lim																		lim and hem veinlets
GRD09-153	39.7	41.75	15	15	1	NS	lim				100					PL	lim	lim			100	5				One vein runs almost entire length of unit at 5 TCA.
GRD09-153	42.67	45	25	25	1	PL	lim	lim	hem		100	30				PL	lim				100	70				lower angle veins range from 20-40 TCA. One vein parallel to core axis from about 44.20-44.50m.
GRD09-153	45	45.72	15	30	2	DS	lim	qtz	hem		70															qtz veins with lim and hem selvage.
GRD09-153	47.84	48.67	15	15	1	NS	lim	lim	hem																	
GRD09-153	48.67	48.77	25	25	1	ST	lim	lim	sox	hem																
GRD09-153	68.3	68.315	1	15	15	PL	qtz	pyr			30															blebs of qtz and pyr exploiting a 1mm qtz and lim stringer.
GRD09-153	68.68	68.681	1	1	1	PL	qtz	pyr			20	40														minor pyr along qtz vein
GRD09-153	69.02	69.021	1	4	2	PL	qtz	pyr			40	40														
GRD09-153	69.28	69.45																								3cm qtz vein with bleb of pyr, about 5% of vein, 20 TCA. 4mm qtz vein 15 TCA with 20% pyr. 10 1mm sheeted bio veins at 70 TCA
GRD09-153	72.68	72.72	1	5	5	PL	qtz	pyr			45	20														
GRD09-153	95.38	95.385	1	5	5	PL	pyr	prt			70	50	260	33	49											
GRD09-153	95.72	95.723	1	3	3	PL	pyr				70	50	80	138	59											
GRD09-153	96.67	96.88	20	20	1	DS	sox	sox	pyr		100	40														0.5-2mm DS sox and pyr veins at LCTC of fault. Stopped zone at ori start. General trend of 40 TCA
GRD09-153	96.88	97.02	15	15	1	DS	sox	sox	pyr		100	40														Can't ori, too DS.
GRD09-153	97.02	97.45	15	7.5	0.5	DS	sox	sox	pyr		40	60														Can't ori, too DS.
GRD09-153	97.45	97.452	1	2	2	PL	sox	sox	pyr		60	20	280	20	81											
GRD09-153	97.452	98.2	20	1	20	SP	pyr	pyr			80	50				DS	pyr	pyr			80					Can't ori, too DS, even the SP veins. DS veins are low angle.
GRD09-153	98.2	98.25	1	3	3	PL	pyr	pyr			60	40	70	140	71											
GRD09-153	98.42	98.43	1	10	10	PL	pyr	pyr			75	80	80	105	43											
GRD09-153	98.6	98.96	5	7	1	DS	pyr	pyr			60	75														DS veins carried over from previous section. Too DS to measure.
GRD09-153	100.58	100.67	5	2	10	PL	asp	asp	pyr		65	50														asp and pyr vein associated with qtz. Noted asp bleb as part of mineralogy.
GRD09-153	101.09	101.14	5	12	10	PL	pyr	pyr			80	50				PL	pyr	pyr			80	50				vein one is a 10mm pyr vein, other veins are 1mm pyr stringers.
GRD09-153	104.04	104.4	5	5	1	DS	pyr	pyr			55															
GRD09-153	110.15	114.35	8	8	1	PL	pyr	pyr			80	20				PL	pyr	pyr			80	50				very few veins, both lower and higher angle veins are mixed with qtz
GRD09-153	114.45	114.451	1	1	1	PL	pyr	pyr			100	30	40	304	88											
GRD09-153	115.7	115.702	1	2	2	PL	pyr	pyr			80	20	10	280	71											
GRD09-153	117.22	117.222	1	2	2	PL	pyr	pyr			80	30	120	181	49											
GRD09-153	117.36	117.362	1	2	2	PL	pyr	pyr			75	20	250	358	62											
GRD09-153	118.6	118.8	3	6	2	SP	pyr	pyr			85	50														Undulating foliation, are parallel with each other but don't have a good measuring point.
GRD09-153	119.27	119.293	1	23	23	PL	pyr	pyr	asp		80	60	200	49	15											
GRD09-153	119.33	119.333	1	3	3	PL	pyr	pyr	asp		75	70	205	68	23											
GRD09-153	120.4	121.91	15	15	1	DS	lim				100					SP	lim	pyr			75	30				Vein two 4 SP vuggy lim veins with pyr blebs.
GRD09-153	121.91	121.93	1	20	20	PL	asp				95	60														Lovely asp vein cross cutting foliation.
GRD09-153	121.93	124.9	60	30	0.5	NS	lim				100															very NS fine veinlets. One 2mm vein parallel TCA fro about 1m.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	127.52	128.02	10	5	0.5	PL	pyr				50	40														very fine PL veins with pyr
GRD09-153	133.8	136	9	4.5	0.5	PL	pyr	pyr			70															Very fine pyr veins vary from 40-60 TCA
GRD09-153	140	140.25	10	5	0.5	SP	pyr	pyr			70															DS SP veins in chl altered MYL
GRD09-153	140.25	141.73	5	2.5	0.5	DS	pyr	pyr			60															
GRD09-153	144.95	199.953	1	3	3	PL	pyr	pyr			60	90														
GRD09-153	147.1	147.3	3	1	3	DS	pyr	pyr			60															
GRD09-153	148.55	149.96	10	10	1	PL	pyr	pyr			75	30				PL	pyr	pyr			60	60				Low angle veins cut foliation and qtz intrusion. Higher angle veins more parallel to foliation. Very few veins.
GRD09-153	151.1	151.48	3	1.5	0.5	PL	pyr	pyr			80															Very minor stringers, range from 30-50 TCA
GRD09-153	151.55	151.555	1	5	5	PL	pyr	pyr	asp		60	40														
GRD09-153	151.555	153.3	10	15	1	BR	qtz	pyr			5	10														Vein one braided black qtz vein with minor blebs of pyr and qtz pieces. Vein two, higher angle 1mm PL pyr veins, 40-60 TCA
GRD09-153	153.85	155	10	10	1	PL	sox	pyr			65	30				PL	pyr	pyr			60	40				
GRD09-153	155	155.67	10	10	1	PL	pyr	pyr			75	30	50	132	89	DS	sox	pyr			60	50				
GRD09-153	155.67	157.43	15	15	1	DS	sox	pyr																		
GRD09-153	157.43	158.85	50	70	1	DS	chl	pyr			25	40														Dark veins with minor pyr
GRD09-153	158.85	159.95	25	15	0.5	NS	sox	pyr			60	20				NS	sox	pyr			60	40				
GRD09-153	160.97	161	1	30	30	PL	qtz	pyr			30	60	200	49	15											qtz vein in brecciated zone. Blebby pyr in vein.
GRD09-153	161	161.2	15	15	1	NS	pyr	pyr			100															
GRD09-153	161.3	161.4	10	10	1	NS	qtz	pyr			40															NS qtz and pyr stringers through intrusion and brecciated zone.
GRD09-153	166.93	167.4	15	7.5	0.5	PL	bio	pyr			40	20				PL	bio	pyr			20	40				
GRD09-153	167.4	168.6	10	10	1	SP	qtz	pyr			45	40	10	98	90	SP	qtz	pyr			45	20	10	280	71	
GRD09-153	168.6	170.39	15	15	1	NS	pyr	pyr			60															
GRD09-153	171.32	171.63	10	5	0.5	DS	qtz	pyr	pyr		30															
GRD09-153	172.32	173	5	7	1	DS	pyr	pyr			80															
GRD09-153	173	173.01	1	10	10	PL	qtz	pyr	cpy		30	50														
GRD09-153	177.5	179.05	25	12.5	0.5	PL	bio	pyr			10	40				PL	bio	pyr			10	30				30-40 TCA minor veins with very minor pyr. One 0.5 mm pyr vein at 175.92 at 40 TCA
GRD09-153	179.05	182.22	5	5	1	NS	pyr	pyr	sox		75															
GRD09-153	182.22	182.23	1	10	10	SP	pyr	pyr			70	50	350	88	50											
GRD09-153	182.23	182.8	15	7.5	0.5	PL	qtz	pyr			40	70	320	75	57	PL	qtz	pyr			30	20	100	174	68	
GRD09-153	182.94	182.942	1	2	2	PL	pyr	pyr			75	70	20	98	59											One sulphide vein with minor DS stringers with no visible sulphides from 182.88-183.14m
GRD09-153	185.05	186.08	30	15	0.5	SP	sul	pyr	asp		60	50	10	97	80	PL	sul				100	30	330	244	84	Vein one, sulphide stringers at 50 TCA, sheeted. Minor veins at 50 TCA with pyr and minor asp with pyr. Lower angle sul veins, can't see pyr. One ASP vein at 185.87, 1mm, 70 TCA, 340 beta
GRD09-153	186.14	186.15	2	4	2	PL	asp	cpy			100	70	350	86	60	PL	pyr	cpy	asp		100	70	350	86	60	
GRD09-153	186.15	187.62	15	15	1	PL	pyr	asp	cpy		80	60	10	95	70	PL	asp	pyr			100	40	330	67	86	Vein two almost all asp, 10% pyr.
GRD09-153	187.62	188.98	20	20	1	SP	pyr	pyr			60	50	320	65	74											very regular sheeted vein ste
GRD09-153	188.98	193.22	30	30	1	SP	sul	pyr			50	40	10	98	90	DS	sul	pyr			50					regular sheeted veins and DS sulphide veins. One or two steeper pyr veins, about 40 % pyr.
GRD09-153	193.22	194.23	5	5	1	NS	pyr	pyr																		
GRD09-153	194.23	195.59	35	35	1	SP	sul	pyr			60	30	340	253	82	PL	pyr	pyr			80	80	140	102	33	Beta varies slightly between 330 and 345. Most veins are at 340. Vein two 3mm pyr vein. Also a 1mm pyr vein, 80 TCA, beta 310, only steeper veins.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	195.59	197.81	35	35	1	SP	pyr	pyr			70	40	340	75	88	SP	pyr	pyr			70	40	20	105	88	both veins sets are part of the same sheeted vein unit. Veins vary between 20-340 beta, 20 and 340 by far the two most common beta angles. One 4mm pyr vein at 197.21m, 40 TCA 60 beta.
GRD09-153	197.81	199.6	35	35	1	SP	sul	pyr			20	20	290	28	87											
GRD09-153	199.6	200.64	25	12.5	0.5	DS	sul																			
GRD09-153	200.64	201.45	25	12.5	0.5	DS	sul																			
GRD09-153	201.52	201.53	1	10	10	PL	pyr	pyr	cpy		80	70														Pyr vein in vuggy qtz. Trace cpy
GRD09-153	202.08	202.22	2	2	2	NS	pyr	pyr	cpy		50															very blebby sort of NS veins with trace cpy
GRD09-153	202.22	203.16	5	5	1	NS	pyr	pyr			60															
GRD09-153	203.61	203.9	4	12	3	PL	pyr	pyr	cpy		50	30	30	296	84											
GRD09-153	203.9	205.71	15	7.5	0.5	NS	pyr	pyr																		
GRD09-153	205.71	206.85	35	35	1	DS	pyr	pyr	sul		60	30	310	48	89											This is a approximate representation of the general trend of the veins. Hard to find a good one to measure.
GRD09-153	206.85	207.03	3	6	2	PL	pyr	pyr	cpy		70	20	290	28	87											Again, treat value with caution.
GRD09-153	207.03	207.88	50	25	0.5	SP	pyr	pyr	cpy	asp	70	20	300	215	88	DS	pyr	pyr	asp	cpy	70					SP and DS veins. Trace cpy and asp.
GRD09-153	207.88	208.11	20	10	0.5	SP	sul					30				NS	sul									Sheeted dark sulphide veins and minor NS sulphide stringers. No ori on sheeted vein as they are also discontinuous.
GRD09-153	208.11	208.12	1	10	10	PL	pyr	pyr	prt		80	90	0	90	40											
GRD09-153	208.12	209.24	20	10	0.5	NS	sul																			
GRD09-153	209.24	209.94	25	25	1	SP	sul	pyr			30	40	270	28	61	NS	sul									
GRD09-153	210.55	211.11	10	10	1	SP	qtz	pyr			20	30	310	48	89	NS	sul	pyr								
GRD09-153	211.11	213.93	10	10	1	NS	pyr	pyr			100															very minor pyr stringers sporadically through zone.
GRD09-153	214.44	214.56	4	4	1	PL	pyr	pyr			30	40														pyr veins in a brecciated zone.
GRD09-153	215.04	215.35	5	10	2	SP	sul	pyr			60	30				NS	pyr	pyr			80					low angle dark sulphide veins with minor pyr, also higher angle, 60-90 pyr stringers.
GRD09-153	216.12	216.92	30	15	0.5	DS	sul	pyr								PL	pyr	pyr			80	80				dark DS sulphide veins with trace pyr, also higher angle, often parallel to foliation pyr veins.
GRD09-153	216.92	217.85	60	20	0.5	DS	sul	pyr			40					NS	pyr	pyr			70					very DS veins with sul and minor pyr. Also veins with increased pyr, can't get any good ori measurements.
GRD09-153	217.85	220.41	25	13	0.5	NS	sul	pyr																		
GRD09-153	220.41	220.69	1	5	5	CE	sul	pyr																		fracture fill in brecciated zone
GRD09-153	220.69	221.57	11	22	2	SP	sul	pyr			60	30				NS	sul	pyr								
GRD09-153	222.16	223.38	15	15	1	SP	sul	pyr			60	30				NS	sul	pyr								
GRD09-153	223.38	225.61	35	25	0.5	SP	sul	pyr			70	30														
GRD09-153	225.61	225.69	1	80	80	PL	qtz	sul	pyr		20															Vuggy qtz vein with network of sulphide veins parallel to qtz vein, 30 TCA. Minor pyr.
GRD09-153	225.69	226.25	15	7.5	0.5	NS	sul	pyr			60															
GRD09-153	226.32	226.38	1	60	60	BR	qtz	sul			20	60														qtz vein, minor brecciation with dark black sulphide stringers, braided throughout vein
GRD09-153	226.92	226.929	1	9	9	PL	pyr	pyr			90	60														one massive pyr vein, cross cuts foliation.
GRD09-153	227.85	230.75	5	5	1	PL	qtz	pyr			40															very few pyr stringers in this zone, no preferred orientation.
GRD09-153	230.75	231.41	10	5	0.5	PL	qtz	pyr			40	50														
GRD09-153	231.7	231.85	20	20	1	PL	sul	pyr			70	90				NS	sul	pyr								zone of 90 TCA stringers with qtz sul and pyr. DS sulphide stringers.
GRD09-153	231.85	232.8	10	5	0.5	SP	qtz	sul	pyr		40	30														
GRD09-153	232.8	233.11	20	10	0.5	SP	pyr	pyr			80	60	240	40	35	NS	pyr	pyr			80					SP veins through clay zone. Also NS stringers.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	233.11	234.1	1	10	10	CE	sul	pyr																		
GRD09-153	234.1	234.2	2	4	2	PL	pyr	pyr			100	30														
GRD09-153	234.2	234.42	2	4	2	PL	pyr	pyr	asp	cpy	80	90				PL	qtz	pyr			40	30				low angle vein cross cuts high angle pyr asp and cpy vein
GRD09-153	234.42	235	1	15	15	CE	sul	pyr																		
GRD09-153	235	235.002	1	2	2	PL	cal	pyr																		vein with cal, sphal and pyr
GRD09-153	235.002	235.78	1	20	20	CE	sul	pyr	cpy																	trace cpy
GRD09-153	235.78	238.1	25	25	1	PL	sul	pyr			40	30				NS	sul	pyr			40					
GRD09-153	239.26	239.262	1	2	2	PL	pyr				50	40														
GRD09-153	240.74	241.56	20	20	1	FF																				fracture fill in crackle breccia
GRD09-153	241.56	245.07	10	5	0.5	NS	sul	pyr																		
GRD09-153	245.07	246.43	5	2.5	0.5	NS	pyr	pyr																		
GRD09-153	247.15	247.45	1	1	1	NS	sul	pyr																		
GRD09-153	248.39	248.394	1	4	4	PL	cla	sul			10	40														
GRD09-153	250.85	251.05	4	2	0.5	PL	sul	pyr			60	70				PL	qtz	sul	pyr		40	60				
GRD09-153	251.15	251.152	1	2	1	PL	pyr	pyr			70	40														Pyr vein in brx zone
GRD09-153	251.23	251.86	20	10	0.5	PL	sul	pyr			75	40				NS	sul	pyr			75					fine ds sulphide stringers, weak orientation of 40 TCA
GRD09-153	251.86	253.14	60	20	0.2	NS	sul	pyr			80															Minor PL veins, most are NS sul veins.
GRD09-153	253.14	253.24	10	7	2	PL	sul	pyr			60	30				DS	sul				80					
GRD09-153	253.24	253.242	1	2	1	PL	pyr	pyr	asp		80	70														Only vein with visible asp in MGR unit.
GRD09-153	253.242	253.61	15	15	1	PL	sul	pyr			65	40				DS	sul				75					
GRD09-153	253.61	253.93	15	7.5	0.5	DS	sul	pyr																		
GRD09-153	258.03	258.55	15	7.5	0.5	DS	sul	pyr																		
GRD09-153	260.71	261.73	20	20	1	PL	sul	pyr			70	30				PL		sul	pyr		70	80				Low and high angle stringers, minor DS stringers.
GRD09-153	265.25	265.45	6	6	1	SP	sul	pyr			80	40				NS		sul	pyr		80					
GRD09-153	266.331	267.33	20	20	1	SP	qtz	sul	pyr		40	30				PL		sul	pyr		80	70				Minor DS sulphide stringers
GRD09-153	267.75	267.84	5	2.5	0.5	DS	sul	sul																		
GRD09-153	267.89	268.08	10	5	0.5	NS	sul	sul	pyr							PL	sul	sul	pyr		70	60				Vein two 3 veins
GRD09-153	268.24	269.05	20	20	1	DS	sul	sul	pyr		80	40				DS	sul	sul	pyr		80	70				two groups of DS veins, one at 40, one at 70
GRD09-153	274.2	274.37	4	28	10	PL	pyr	pyr	cpy		75	40														4 pyr veins in qtz with trace cpy. Concentrated after fault in one zone.
GRD09-153	276.21	276.76	15	15	1	SP	qtz	sul	pyr		40	40	290	40	71	DS	sul	pyr			40					SP veins continue into SCH. Mostly DS but some of the SP you can sort of get a measurement off of. Treat ori measurement with caution.
GRD09-153	282.68	282.69	1	10	10	PL	pyr	pyr			80	80														
GRD09-153	287	287.001	1	1	1	PL	pyr	pyr			75	50														
GRD09-153	287.32	287.35	10	1	10	PL	pyr	pyr			75	80				PL	sul	pyr			60	40				two veins sets over very short interval, atypical of unit.
GRD09-153	289.56	293.76	60	20	0.25	NS	sul	pyr			20															very little sulphides in NS DS stringers.
GRD09-153	293.76	294.6	40	20	0.5	SP	sul	pyr			80	40				NS	sul	pyr								Minor NS stringers
GRD09-153	296.05	296.34	5	2	0.5	NS	sul																			
GRD09-153	297.4	297.7	1	7	7	PL	qtz	pyr	cpy		40	20														qtz vein with pyr and trace cpy. Elevated mag values.
GRD09-153	303.77	303.772	1	2	2	PL	pyr	pyr	asp		60	60				PL	asp	pyr			60	90				2mm pyr vein with minor asp. Asp vein with minor pyr at 90 TCA.
GRD09-153	303.92	304.2	5	2.5	0.5	DS	sul	pyr			30	10														DS sul and minor pyr veins in bleached zone
GRD09-153	306.24	306.93	7	7	1	NS	pyr	pyr	sul																	NS pyr veins with fine dark sulphides. Some are in bands following foliation, one, cross cuts foliation at 60 TCA, 3 cut at 50 TCA
GRD09-153	306.93	307.85	30	30	1	SP	pyr	pyr	sul	cpy	80	40				SP	pyr	pyr	sul	cpy	80	30				two vein sets one at 30 one at 40 cross cutting each other…conjugate veins?
GRD09-153	307.85	308.15	5	5	1	NS	pyr	pyr			70															
GRD09-153	308.5	308.88	10	10	1	PL	pyr	pyr			70	40														

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	308.33	308.52	5	10	5	NS	qtz	pyr	cpy																	NS qtz veins with brassy pyr, shiny pyr and trace cpy.
GRD09-153	314.59	316.05	4	4	1	NS	pyr	pyr			80															
GRD09-153	316.39	317.55	40	20	0.5	DS	sul	sul	pyr		100	20				DS	sul	sul	pyr		100	40				Two sets of DS veins, both with trace pyr.
GRD09-153	317.55	317.94	1	5	5	CE	sul	sul	pyr																	Sul as fracture fill with minor pyr in brx zone.
GRD09-153	317.94	320.04	60	30	0.5	SP	sul	sul	pyr		70	50				DS	sul	sul	pyr		100					Both SP veins are also DS, widely spaces vein set, about 1mm wide. Fine DS stringers make up rest of veins.
GRD09-153	320.04	323.09	60	30	1	SP	pyr	pyr	sul		80	30				DS	sul	sul	pyr		100					
GRD09-153	323.07	325.17	40	20	0.5	SP	sul	sul	pyr		60	40				DS	sul	sul	pyr		100					
GRD09-153	325.17	325.4	15	7.5	0.5	DS	sul	sul	pyr		100	30														DS veins are generally at 30 TCA
GRD09-153	325.4	326.14	10	10	1	SP	pyr	pyr	sul		100	50				DS	pyr	pyr	sul		100					very regular 1-2mm pyr veins. Some are DS but still at about 50 TCA. Minor DS veins
GRD09-153	326.57	326.7	20	10	0.5	PL	pyr	pyr			100	50				DS	pyr	pyr			100					very closely spaced veins
GRD09-153	326.7	327.14	12	6	0.5	DS	sul	sul																		
GRD09-153	327.14	327.57	20	20	1	PL	pyr	pyr	sul		80	40				SP	sul	sul	pyr		80	70				
GRD09-153	327.57	328.02	30	15	0.5	DS	pyx	pyx																		
GRD09-153	328.02	328.03	1	10	10	PL	pyr	pyr	cpy		80	40														
GRD09-153	328.03	328.17	1	5	5	CE	cpy	pyr																		diss cpy and pyr veins as infill in brx
GRD09-153	328.17	328.8	10	5	0.5	NS	sul	sul	pyr		90															
GRD09-153	332.14	335.47	30	30	1	PL	pyr	pyr	sul		80	30				PL	pyr	pyr	sul		80	10				also have DS sulphide veins across zone.
GRD09-153	335.47	337.8	35	20	0.5	PL	sul	sul	pyr		70					NS	sul	sul	pyr							PL veins range from 30 to 70 TCA. NS veins are DS and also blebby.
GRD09-153	339.64	341.6	15	7.5	0.5	NS	sul	sul	pyr		65															
GRD09-153	341.6	342.2	20	10	0.5	PL	sul	sul			75	30				NS	sul	sul	pyr							
GRD09-153	342.2	342.9	10	0.5	5	NS	sul	sul	pyr		75															
GRD09-153	345.13	345.56	15	7	0.5	DS	pyr	pyr			80					PL	pyr	pyr			75	30				Vein two is one 2mm pyr vein with two DS veins parallel to it, all at 30 TCA. Almost a mini SP.
GRD09-153	346.24	348.5	30	15	0.5	DS	pyr	pyr	sul							PL	pyr	pyr			75	20				Most of the DS veins are in the MGR.
GRD09-153	348.85	348.99	5	2.5	0.5	DS	sul	sul				20														
GRD09-153	350.52	350.74	15	15	1	DS	pyr	pyr	sul		60	80				DS	pyr	pyr	sul		60	40				two main directions of DS veins
GRD09-153	350.74	350.83	5	10	2	PL	pyr	pyr	sul	cpy	90	80														2mm PL pyr veins with minor cpy. 5mm selvage on all veins, makes zone very siliceous
GRD09-153	352.57	353.57	10	20	2	NS	pyr	pyr	sul		80					DS	sul	sul								generally 2mm veins with pyr and sul. No prefered direction. Corresponds to faulted area.
GRD09-153	353.57	355.53	40	20	0.5	NS	sul	sul	pyr							DS	sul	sul								NS and DS veins across enitre zone. One or two veins PL about 1mm, mainly pyr.
GRD09-153	356.06	356.062	1	2	2	DS	pyr	pyr			50	80														DS vein parallel to foliation
GRD09-153	356.17	356.172	1	3	3	PL	pyx	pyx			80	80														
GRD09-153	356.38	356.382	1	4	4	PL	pyr	pyr	cpy		90	70														
GRD09-153	356.56	356.565	1	5	5	PL	qtz	pyr	cpy		1	70														
GRD09-153	357.81	358.84	12	6	0.5	SP	pyr	pyr	sul																	
GRD09-153	358.84	361.02	30	15	0.5	PL	pyr	pyr			70	40				PL	pyr	pyr			80	60				Also DS stringers
GRD09-153	361.02	365.48	80	40	0.5	DS	pyr	pyr			75	30														
GRD09-153	365.48	366.55	15	15	1	DS	sul	sul	pyr		65															
GRD09-153	368.3	370.1	1	60	60	CE	sul	sul	pyr	asp																
GRD09-153	370.1	371.86	40	25	0.5	NS	pyr	pyr	sul							DS	qtz	sul	pyr		40	40				DS veins with faint orientation. NS veins have more pyr.
GRD09-153	371.86	378.32	100	50	0.5	PL	pyr	pyr	cpy	asp	75	90				NS	pyr	pyr	cpy							High angle, parallel to foliation, most of the time qtz veins with pyr, minor cpy. NS cross cut foliation, also have pyr and minor cpy. DS veins also present.

Hole_ID	Vein From	Vein To	Number of Veins	Cummulative Vein Thickness mm	Common Thickness mm	Vein Inf-Type_1	Dominent Inf-Mineralogy_1	Sulfide Mineralogy_1_1	Sulfide Mineralogy_1_2	Sulfide Mineralogy_1_3	Total Sulfde %_1	Vein CA_1	Inf-Beta_1	Inf-Strike_1	Inf-dip_1	Vein Inf-Type_2	Dominent Inf-Mineralogy_2	Sulfide Mineralogy_2_1	Sulfide Mineralogy_2_2	Sulfide Mineralogy_2_3	Total Sulfde %_2	Vein CA_2	Inf-Beta_2	Inf-Strike_2	Inf-dip_2	Vein Zone Description
GRD09-153	378.48	378.484	1	4	4	PL	qtz	pyr	asp	sph						PL	pyr	pyr								qtz vein with pyr, asp and sph. Cross cuts 3 high angle 1mm pyr veins
GRD09-153	378.484	382.72	70	35	0.5	SP	pyr	pyr			80	80				SP	pyr	pyr	sul		60	30				
GRD09-153	385	385.005	1	5	5	PL	qtz	pyr			40	40														
GRD09-153	385.11	385.113	1	3	3	PL	pyr	pyr	asp		90	50														
GRD09-153	385.113	385.87	1	5	5	CE	pyr	pyr	sul																	
GRD09-153	385.87	387.1	30	15	0.5	PL	pyr	pyr	sul		75	30				NS	sul	sul	pyr		60					
GRD09-153	387.1	388.1	20	10	0.5	SP	qtz	pyr			40	60				NS	sul	sul	pyr		75					
GRD09-153	388.1	388.105	1	5	5	PL	qtz	pyr			20	60														
GRD09-153	388.18	388.184	1	4	4	PL	pyr	pyr	asp		80	20														
GRD09-153	391.5	391.505	1	5	5	PL	qtz	cpy	pyr	sph	10	70														EOH

Appendix 2: Batch Sheets

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR089	GRD09-139	0.00	2.80	2.80	X45208		ORG
2	9NFR089	GRD09-139	2.80	4.80	2.00	X45209		ORG
3	9NFR089	GRD09-139	4.80	6.30	1.50	X45210		ORG
4	9NFR089	GRD09-139	6.30	7.30	1.00	X45211		ORG
5	9NFR089	GRD09-139	7.30	8.60	1.30	X45212		ORG
6	9NFR089	GRD09-139	8.60	9.40	0.80	X45213		ORG
7	9NFR089	GRD09-139	9.40	11.30	1.90	X45214		ORG
8	9NFR089	GRD09-139	11.30	13.30	2.00	X45215		ORG
9	9NFR089	GRD09-139	13.30	15.00	1.70	X45216		ORG
10	9NFR089	GRD09-139	15.00	16.10	1.10	X45217		ORG
11	9NFR089	GRD09-139	16.10	16.90	0.80	X45218		ORG
12	9NFR089	GRD09-139	16.90	17.90	1.00	X45219		ORG
13	9NFR089	GRD09-139				X45220	74	STD
14	9NFR089	GRD09-139	17.90	19.90	2.00	X45221		ORG
15	9NFR089	GRD09-139	19.90	21.90	2.00	X45222		ORG
16	9NFR089	GRD09-139	21.90	23.90	2.00	X45223		ORG
17	9NFR089	GRD09-139	23.90	25.50	1.60	X45224		ORG
18	9NFR089	GRD09-139	25.50	27.00	1.50	X45225		ORG
19	9NFR089	GRD09-139	27.00	28.40	1.40	X45226		ORG
20	9NFR089	GRD09-139	28.40	29.10	0.70	X45227		ORG
21	9NFR089	GRD09-139	29.10	30.60	1.50	X45228		OFD
22	9NFR089	GRD09-139	29.10	30.60	1.50	X45229	X45228	DUF
23	9NFR089	GRD09-139	30.60	32.10	1.50	X45230		ORG
24	9NFR089	GRD09-139	32.10	33.20	1.10	X45231		ORG
25	9NFR089	GRD09-139	33.20	34.40	1.20	X45232		ORG
26	9NFR089	GRD09-139	34.40	35.50	1.10	X45233		ORG
27	9NFR089	GRD09-139	35.50	36.70	1.20	X45234		ORG
28	9NFR089	GRD09-139	36.70	37.90	1.20	X45235		ORG
29	9NFR089	GRD09-139	37.90	39.40	1.50	X45236		ORG
30	9NFR089	GRD09-139	39.40	41.40	2.00	X45237		OPD
31	9NFR089	GRD09-139	39.40	41.40	2.00	X45238	X45237	DUP
32	9NFR089	GRD09-139	41.40	42.60	1.20	X45239		ORG
33	9NFR089	GRD09-139	42.60	43.70	1.10	X45240		ORG
34	9NFR089	GRD09-139				X45241		BLK
35	9NFR089	GRD09-139	43.70	45.70	2.00	X45242		ORG
36	9NFR089	GRD09-139	45.70	47.70	2.00	X45243		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR091	GRD09-139	47.70	48.40	0.70	X45244		ORG
2	9NFR091	GRD09-139	48.40	50.40	2.00	X45245		ORG
3	9NFR091	GRD09-139	50.40	52.40	2.00	X45246		ORG
4	9NFR091	GRD09-139	52.40	54.40	2.00	X45247		ORG
5	9NFR091	GRD09-139	54.40	56.40	2.00	X45248		ORG
6	9NFR091	GRD09-139	56.40	57.50	1.10	X45249		ORG
7	9NFR091	GRD09-139	57.50	59.00	1.50	X45250		ORG
8	9NFR091	GRD09-139	59.00	60.00	1.00	X45251		ORG
9	9NFR091	GRD09-139	60.00	62.00	2.00	X45252		ORG
10	9NFR091	GRD09-139	62.00	64.00	2.00	X45253		ORG
11	9NFR091	GRD09-139	64.00	66.00	2.00	X45254		ORG
12	9NFR091	GRD09-139	66.00	68.00	2.00	X45255		ORG
13	9NFR091	GRD09-139	68.00	69.40	1.40	X45256		ORG
14	9NFR091	GRD09-139	69.40	71.00	1.60	X45257		ORG
15	9NFR091	GRD09-139	71.00	73.00	2.00	X45258		ORG
16	9NFR091	GRD09-139	73.00	74.70	1.70	X45259		ORG
17	9NFR091	GRD09-139	74.70	76.00	1.30	X45260		ORG
18	9NFR091	GRD09-139	76.00	78.00	2.00	X45261		ORG
19	9NFR091	GRD09-139	78.00	80.00	2.00	X45262		ORG
20	9NFR091	GRD09-139	80.00	81.40	1.40	X45263		ORG
21	9NFR091	GRD09-139	81.40	82.70	1.30	X45264		ORG
22	9NFR091	GRD09-139	82.70	83.70	1.00	X45265		ORG
23	9NFR091	GRD09-139	83.70	85.70	2.00	X45266		ORG
24	9NFR091	GRD09-139	85.70	87.40	1.70	X45267		ORG
25	9NFR091	GRD09-139	87.40	89.20	1.80	X45268		ORG
26	9NFR091	GRD09-139	89.20	90.80	1.60	X45269		ORG
27	9NFR091	GRD09-139	90.80	92.30	1.50	X45270		ORG
28	9NFR091	GRD09-139	92.30	93.00	0.70	X45271		ORG
29	9NFR091	GRD09-139	93.00	93.40	0.40	X45272		ORG
30	9NFR091	GRD09-139	93.40	95.40	2.00	X45273		ORG
31	9NFR091	GRD09-139				X45274	13.00	STD
32	9NFR091	GRD09-139	95.40	97.30	1.90	X45275		ORG
33	9NFR091	GRD09-139	97.30	98.70	1.40	X45276		ORG
34	9NFR091	GRD09-139	0.00	0.00	0.00	X45277		BLK
35	9NFR091	GRD09-139	98.70	99.50	0.80	X45278		OFD
36	9NFR091	GRD09-139	98.70	99.50	0.80	X45279	X45278	DUF

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR095	GRD09-139	99.50	100.70	1.20	X45280		ORG
2	9NFR095	GRD09-139	100.70	101.90	1.20	X45281		ORG
3	9NFR095	GRD09-139				X45282	13	STD
4	9NFR095	GRD09-139	101.90	102.50	0.60	X45283		ORG
5	9NFR095	GRD09-139	102.50	103.90	1.40	X45284		ORG
6	9NFR095	GRD09-139	103.90	105.30	1.40	X45285		ORG
7	9NFR095	GRD09-139	105.30	106.60	1.30	X45286		ORG
8	9NFR095	GRD09-139	106.60	108.00	1.40	X45287		ORG
9	9NFR095	GRD09-139	108.00	109.45	1.45	X45288		ORG
10	9NFR095	GRD09-139	109.45	110.90	1.45	X45289		ORG
11	9NFR095	GRD09-139	110.90	112.90	2.00	X45290		ORG
12	9NFR095	GRD09-139	112.90	114.90	2.00	X45291		ORG
13	9NFR095	GRD09-139	114.90	116.10	1.20	X45292		OPD
14	9NFR095	GRD09-139	114.90	116.10	1.20	X45293	X45292	DUP
15	9NFR095	GRD09-139	116.10	117.70	1.60	X45294		ORG
16	9NFR095	GRD09-139	117.70	119.70	2.00	X45295		OCD
17	9NFR095	GRD09-139	117.70	119.70	2.00	X45296	X45295	DUC
18	9NFR095	GRD09-139	119.70	121.70	2.00	X45297		ORG
19	9NFR095	GRD09-139	121.70	123.70	2.00	X45298		ORG
20	9NFR095	GRD09-139				X45299		BLK
21	9NFR095	GRD09-139	123.70	124.95	1.25	X45300		ORG
22	9NFR095	GRD09-139	124.95	126.20	1.25	X45301		ORG
23	9NFR095	GRD09-139	126.20	127.90	1.70	X45302		ORG
24	9NFR095	GRD09-139	127.90	129.90	2.00	X45303		ORG
25	9NFR095	GRD09-139	129.90	131.90	2.00	X45304		ORG
26	9NFR095	GRD09-139	131.90	133.10	1.20	X45305		ORG
27	9NFR095	GRD09-139	133.10	134.80	1.70	X45306		ORG
28	9NFR095	GRD09-139	134.80	136.80	2.00	X45307		ORG
29	9NFR095	GRD09-139	136.80	138.80	2.00	X45308		ORG
30	9NFR095	GRD09-139	138.80	140.80	2.00	X45309		ORG
31	9NFR095	GRD09-139	140.80	142.80	2.00	X45310		ORG
32	9NFR095	GRD09-139	142.80	144.60	1.80	X45311		ORG
33	9NFR095	GRD09-139	144.60	146.60	2.00	X45312		ORG
34	9NFR095	GRD09-139	146.60	148.60	2.00	X45313		ORG
35	9NFR095	GRD09-139	148.60	150.60	2.00	X45314		ORG
36	9NFR095	GRD09-139	150.60	151.85	1.25	X45315		ORG

Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
9NFR096	GRD09-139	151.85	153.10	1.25	X45316		ORG
9NFR096	GRD09-139	153.10	153.50	0.40	X45317		ORG
9NFR096	GRD09-139	153.50	154.30	0.80	X45318		ORG
9NFR096	GRD09-139	154.30	155.60	1.30	X45319		ORG
9NFR096	GRD09-139	155.60	157.40	1.80	X45320		ORG
9NFR096	GRD09-139	157.40	158.20	0.80	X45321		ORG
9NFR096	GRD09-139	158.20	160.00	1.80	X45322		ORG
9NFR096	GRD09-139	160.00	161.00	1.00	X45323		ORG
9NFR096	GRD09-139	161.00	162.70	1.70	X45324		ORG
9NFR096	GRD09-139	162.70	164.30	1.60	X45325		ORG
9NFR096	GRD09-139				X45326	5E	STD
9NFR096	GRD09-139	164.30	165.90	1.60	X45327		ORG
9NFR096	GRD09-139				X45328		BLK
9NFR096	GRD09-139	165.90	166.50	0.60	X45329		OPD
9NFR096	GRD09-139	165.90	166.50	0.60	X45330	X45329	DUP
9NFR096	GRD09-139	166.50	167.70	1.20	X45331		ORG
9NFR096	GRD09-139	167.70	168.70	51.00	X45332		ORG
9NFR096	GRD09-139	168.70	169.80	1.10	X45333		ORG
9NFR096	GRD09-139	169.80	171.80	2.00	X45334		ORG
9NFR096	GRD09-139	171.80	173.80	2.00	X45335		ORG
9NFR096	GRD09-139	173.80	175.00	1.20	X45336		ORG
9NFR096	GRD09-139	175.00	176.40	1.40	X45337		OCD
9NFR096	GRD09-139	175.00	176.40	1.40	X45338	X45337	DUC
9NFR096	GRD09-139	176.40	178.40	2.00	X45339		ORG
9NFR096	GRD09-139	178.40	180.00	1.60	X45340		ORG
9NFR096	GRD09-139	180.00	180.80	0.80	X45341		ORG
9NFR096	GRD09-139	180.80	182.80	2.00	X45342		ORG
9NFR096	GRD09-139	182.80	184.30	1.50	X45343		ORG
9NFR096	GRD09-139	184.30	185.90	1.60	X45344		ORG
9NFR096	GRD09-139	185.90	186.30	0.40	X45345		ORG
9NFR096	GRD09-139	186.30	188.00	1.70	X45346		ORG
9NFR096	GRD09-139	188.00	189.70	1.70	X45347		ORG
9NFR096	GRD09-139	189.70	191.40	1.70	X45348		ORG
9NFR096	GRD09-139	191.40	193.40	2.00	X45349		ORG
9NFR096	GRD09-139	193.40	195.40	2.00	X45350		ORG
9NFR096	GRD09-139	195.40	197.40	2.00	X45351		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR099	GRD09-139	197.40	199.40	2.00	X45352		ORG
2	9NFR099	GRD09-139	199.40	201.00	1.60	X45353		ORG
3	9NFR099	GRD09-139	201.00	203.00	2.00	X45354		OFD
4	9NFR099	GRD09-139	201.00	203.00	2.00	X45355	X45354	DUF
5	9NFR099	GRD09-139	203.00	205.00	2.00	X45356		ORG
6	9NFR099	GRD09-139	205.00	206.60	1.60	X45357		ORG
7	9NFR099	GRD09-139	206.60	208.60	2.00	X45358		ORG
8	9NFR099	GRD09-139	208.60	210.20	1.60	X45359		ORG
9	9NFR099	GRD09-139	210.20	212.20	2.00	X45360		ORG
10	9NFR099	GRD09-139	212.20	214.20	2.00	X45361		ORG
11	9NFR099	GRD09-139	214.20	215.20	1.00	X45362		ORG
12	9NFR099	GRD09-139	215.20	216.40	1.20	X45363		ORG
13	9NFR099	GRD09-139	216.40	218.40	2.00	X45364		ORG
14	9NFR099	GRD09-139	218.40	220.00	1.60	X45365		ORG
15	9NFR099	GRD09-139	220.00	221.50	1.50	X45366		ORG
16	9NFR099	GRD09-139				X45367	74	STD
17	9NFR099	GRD09-139	221.50	223.10	1.60	X45368		ORG
18	9NFR099	GRD09-139	223.10	224.70	1.60	X45369		OPD
19	9NFR099	GRD09-139	223.10	224.70	1.60	X45370	X45369	DUP
20	9NFR099	GRD09-139	224.70	225.95	1.25	X45371		ORG
21	9NFR099	GRD09-139	225.95	227.20	1.25	X45372		ORG
22	9NFR099	GRD09-139	227.20	227.60	0.40	X45373		ORG
23	9NFR099	GRD09-139	227.60	229.60	2.00	X45374		ORG
24	9NFR099	GRD09-139	229.60	231.60	2.00	X45375		ORG
25	9NFR099	GRD09-139	231.60	233.60	2.00	X45376		ORG
26	9NFR099	GRD09-139	233.60	235.20	1.60	X45377		ORG
27	9NFR099	GRD09-139	235.20	236.80	1.60	X45378		ORG
28	9NFR099	GRD09-139	236.80	238.15	1.35	X45379		ORG
29	9NFR099	GRD09-139	238.15	239.00	0.85	X45380		ORG
30	9NFR099	GRD09-139	239.00	241.00	2.00	X45381		ORG
31	9NFR099	GRD09-139				X45382		BLK
32	9NFR099	GRD09-139	241.00	243.00	2.00	X45383		ORG
33	9NFR099	GRD09-139	243.00	245.00	2.00	X45384		ORG
34	9NFR099	GRD09-139	245.00	246.00	1.00	X45385		ORG
35	9NFR099	GRD09-139	246.00	247.20	1.20	X45386		ORG
36	9NFR099	GRD09-139	247.20	248.20	1.00	X45387		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR100	GRD09-139	248.20	250.20	2.00	X45388		ORG
2	9NFR100	GRD09-139	250.20	251.70	1.50	X45389		ORG
3	9NFR100	GRD09-139	251.70	252.10	0.40	X45390		ORG
4	9NFR100	GRD09-139	252.10	253.70	1.60	X45391		ORG
5	9NFR100	GRD09-139	253.70	255.20	1.50	X45392		ORG
6	9NFR100	GRD09-139	255.20	255.60	0.40	X45393		OCD
7	9NFR100	GRD09-139	255.20	255.60	0.40	X45394	X45393	DUC
8	9NFR100	GRD09-139	255.60	257.60	2.00	X45395		ORG
9	9NFR100	GRD09-139	257.60	258.00	0.40	X45396		ORG
10	9NFR100	GRD09-139	258.00	259.30	1.30	X45397		ORG
11	9NFR100	GRD09-139	259.30	261.30	2.00	X45398		ORG
12	9NFR100	GRD09-139	261.30	263.30	2.00	X45399		ORG
13	9NFR100	GRD09-139	263.30	265.30	2.00	X45400		OPD
14	9NFR100	GRD09-139	263.30	265.30	2.00	X45401	X45400	DUP
15	9NFR100	GRD09-139	265.30	266.65	1.35	X45402		ORG
16	9NFR100	GRD09-139				X45403		BLK
17	9NFR100	GRD09-139	266.65	268.00	1.35	X45404		ORG
18	9NFR100	GRD09-139	268.00	269.20	1.20	X45405		ORG
19	9NFR100	GRD09-139	269.20	270.40	1.20	X45406		ORG
20	9NFR100	GRD09-139	270.40	272.40	2.00	X45407		ORG
21	9NFR100	GRD09-139	272.40	274.40	2.00	X45408		ORG
22	9NFR100	GRD09-139	274.40	276.50	2.10	X45409		ORG
23	9NFR100	GRD09-139	276.50	278.00	1.50	X45410		ORG
24	9NFR100	GRD09-139	278.00	280.00	2.00	X45411		ORG
25	9NFR100	GRD09-139	280.00	280.80	0.80	X45412		ORG
26	9NFR100	GRD09-139	280.80	281.75	0.95	X45413		ORG
27	9NFR100	GRD09-139	281.75	283.10	1.35	X45414		ORG
28	9NFR100	GRD09-139	283.10	284.85	1.75	X45415		ORG
29	9NFR100	GRD09-139	284.85	286.60	1.75	X45416		ORG
30	9NFR100	GRD09-139	286.60	287.70	1.10	X45417		ORG
31	9NFR100	GRD09-139	287.70	288.80	1.10	X45418		ORG
32	9NFR100	GRD09-139	288.80	290.60	1.80	X45419		ORG
33	9NFR100	GRD09-139	290.60	292.60	2.00	X45420		ORG
34	9NFR100	GRD09-139				X45421	19	STD
35	9NFR100	GRD09-139	292.60	294.60	2.00	X45422		ORG
36	9NFR100	GRD09-139	294.60	295.66	1.06	X45423		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
10	9NFR140	GRD09-147	1.67	2.74	1.07	X47921		ORG
11	9NFR140	GRD09-147	2.74	4.25	1.51	X47922		ORG
12	9NFR140	GRD09-147	4.25	5.13	0.88	X47923		ORG
13	9NFR140	GRD09-147	5.13	7.22	2.09	X47924		ORG
14	9NFR140	GRD09-147	7.22	9.49	2.27	X47925		ORG
15	9NFR140	GRD09-147	9.49	10.50	1.01	X47926		ORG
16	9NFR140	GRD09-147	10.50	11.78	1.28	X47927		ORG
17	9NFR140	GRD09-147	11.78	13.89	2.11	X47928		ORG
18	9NFR140	GRD09-147	13.89	15.50	1.61	X47929		ORG
19	9NFR140	GRD09-147	15.50	17.37	1.87	X47930		ORG
20	9NFR140	GRD09-147				X47931		BLK
21	9NFR140	GRD09-147	17.37	19.00	1.63	X47932		ORG
22	9NFR140	GRD09-147	19.00	21.02	2.02	X47933		ORG
23	9NFR140	GRD09-147	21.02	21.97	0.95	X47934		ORG
24	9NFR140	GRD09-147	21.97	22.71	0.74	X47935		ORG
25	9NFR140	GRD09-147	22.71	23.45	0.74	X47936		ORG
26	9NFR140	GRD09-147	23.45	25.38	1.93	X47937		OCD
27	9NFR140	GRD09-147	23.45	25.38	1.93	X47938	X47937	DUC
28	9NFR140	GRD09-147	25.38	27.08	1.70	X47939		ORG
29	9NFR140	GRD09-147	27.08	27.49	0.41	X47940		ORG
30	9NFR140	GRD09-147	27.49	29.00	1.51	X47941		ORG
31	9NFR140	GRD09-147	29.00	31.00	2.00	X47942		ORG
32	9NFR140	GRD09-147	31.00	33.00	2.00	X47943		ORG
33	9NFR140	GRD09-147	33.00	34.84	1.84	X47944		OPD
34	9NFR140	GRD09-147	33.00	34.84	1.84	X47945	X47944	DUP
35	9NFR140	GRD09-147	34.84	36.31	1.47	X47946		ORG
36	9NFR140	GRD09-147	36.31	38.00	1.69	X47947		ORG
37	9NFR140	GRD09-147	38.00	39.48	1.48	X47948		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR150	GRD09-150	0.00	6.10	6.10	X44742		ORG
2	9NFR150	GRD09-150	6.10	7.75	1.65	X44743		OPD
3	9NFR150	GRD09-150	6.10	7.75	1.65	X44744	X44743	DUP
4	9NFR150	GRD09-150	7.75	9.34	1.59	X44745		ORG
5	9NFR150	GRD09-150	9.34	11.00	1.66	X44746		ORG
6	9NFR150	GRD09-150	11.00	12.19	1.19	X44747		ORG
7	9NFR150	GRD09-150	12.19	13.80	1.61	X44748		ORG
8	9NFR150	GRD09-150	13.80	15.73	1.93	X44749		ORG
9	9NFR150	GRD09-150	15.73	17.68	1.95	X44750		ORG
10	9NFR150	GRD09-150	17.68	19.20	1.52	X44751		ORG
11	9NFR150	GRD09-150	19.20	21.03	1.83	X44752		ORG
12	9NFR150	GRD09-150	21.03	22.06	1.03	X44753		ORG
13	9NFR150	GRD09-150	22.06	24.05	1.99	X44754		ORG
14	9NFR150	GRD09-150	24.05	25.95	1.90	X44755		ORG
15	9NFR150	GRD09-150	25.95	27.87	1.92	X44756		ORG
16	9NFR150	GRD09-150	27.87	29.35	1.48	X44757		ORG
17	9NFR150	GRD09-150				X44758	74	STD
18	9NFR150	GRD09-150	29.35	30.58	1.23	X44759		ORG
19	9NFR150	GRD09-150	30.58	32.82	2.24	X44760		ORG
20	9NFR150	GRD09-150	32.82	33.53	0.71	X44761		ORG
21	9NFR150	GRD09-150	33.53	35.36	1.83	X44762		ORG
22	9NFR150	GRD09-150	35.36	36.60	1.24	X44763		ORG
23	9NFR150	GRD09-150	36.60	38.60	2.00	X44764		ORG
24	9NFR150	GRD09-150	38.60	40.36	1.76	X44765		ORG
25	9NFR150	GRD09-150	40.36	42.67	2.31	X44766		ORG
26	9NFR150	GRD09-150	42.67	43.64	0.97	X44767		ORG
27	9NFR150	GRD09-150	43.64	44.36	0.72	X44768		OCD
28	9NFR150	GRD09-150	43.64	44.36	0.72	X44769	X44768	DUC
29	9NFR150	GRD09-150	44.36	46.24	1.88	X44770		ORG
30	9NFR150	GRD09-150				X44771		BLK
31	9NFR150	GRD09-150	46.24	47.20	0.96	X44772		ORG
32	9NFR150	GRD09-150	47.20	47.90	0.70	X44773		ORG
33	9NFR150	GRD09-150	47.90	48.78	0.88	X44774		ORG
34	9NFR150	GRD09-150	48.78	49.04	0.26	X44775		ORG
35	9NFR150	GRD09-150	49.04	49.88	0.84	X44776		ORG
36	9NFR150	GRD09-150	49.88	50.70	0.82	X44777		ORG
37	9NFR150	GRD09-150	50.70	52.56	1.86	X44778		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR158	GRD09-147	39.48	40.17	0.69	X47949		ORG
2	9NFR158	GRD09-147	40.17	41.29	1.12	X47950		ORG
3	9NFR158	GRD09-147				X47951		BLK
4	9NFR158	GRD09-147	41.29	42.50	1.21	X47952		ORG
5	9NFR158	GRD09-147	42.50	43.81	1.31	X47953		ORG
6	9NFR158	GRD09-147	43.81	45.52	1.71	X47954		ORG
7	9NFR158	GRD09-147	45.52	47.00	1.48	X47955		OCD
8	9NFR158	GRD09-147	45.52	47.00	1.48	X47956	X47955	DUC
9	9NFR158	GRD09-147	47.00	48.03	1.03	X47957		ORG
10	9NFR158	GRD09-147	48.03	48.64	0.61	X47958		ORG
11	9NFR158	GRD09-147	48.64	49.19	0.55	X47959		ORG
12	9NFR158	GRD09-147	49.19	49.57	0.38	X47960		ORG
13	9NFR158	GRD09-147	49.57	49.96	0.39	X47961		ORG
14	9NFR158	GRD09-147	49.96	50.38	0.42	X47962		ORG
15	9NFR158	GRD09-147	50.38	51.02	0.64	X47963		ORG
16	9NFR158	GRD09-147	51.02	52.67	1.65	X47964		ORG
17	9NFR158	GRD09-147	52.67	54.57	1.90	X47965		OPD
18	9NFR158	GRD09-147	52.67	54.57	1.90	X47966	X47965	DUP
19	9NFR158	GRD09-147	54.57	56.00	1.43	X47967		ORG
20	9NFR158	GRD09-147	56.00	58.00	2.00	X47968		ORG
21	9NFR158	GRD09-147	58.00	59.89	1.89	X47969		ORG
22	9NFR158	GRD09-147	59.89	61.00	1.11	X47970		ORG
23	9NFR158	GRD09-147	61.00	63.00	2.00	X47971		ORG
24	9NFR158	GRD09-147	63.00	64.34	1.34	X47972		ORG
25	9NFR158	GRD09-147	64.34	66.00	1.66	X47973		ORG
26	9NFR158	GRD09-147	66.00	68.00	2.00	X47974		ORG
27	9NFR158	GRD09-147	68.00	69.90	1.90	X47975		ORG
28	9NFR158	GRD09-147	69.90	70.53	0.63	X47976		ORG
29	9NFR158	GRD09-147				X47977	74	STD
30	9NFR158	GRD09-147	70.53	72.00	1.47	X47978		ORG
31	9NFR158	GRD09-147	72.00	74.00	2.00	X47979		ORG
32	9NFR158	GRD09-147	74.00	76.00	2.00	X47980		ORG
33	9NFR158	GRD09-147	76.00	77.24	1.24	X47981		ORG

34	9NFR158	GRD09-147	77.24	78.50	1.26	X47982		ORG
35	9NFR158	GRD09-147	78.50	79.82	1.32	X47983		ORG
36	9NFR158	GRD09-147	79.82	80.94	1.12	X47984		ORG
37	9NFR158	GRD09-147	80.94	82.50	1.56	X47985		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR160	GRD09-150	52.56	53.76	1.20	X44779		ORG
2	9NFR160	GRD09-150	53.76	55.44	1.68	X44780		OFD
3	9NFR160	GRD09-150	53.76	55.44	1.68	X44781	X44780	DUF
4	9NFR160	GRD09-150				X44782		BLK
5	9NFR160	GRD09-150	55.44	57.44	2.00	X44783		ORG
6	9NFR160	GRD09-150	57.44	59.44	2.00	X44784		ORG
7	9NFR160	GRD09-150	59.44	60.68	1.24	X44785		ORG
8	9NFR160	GRD09-150	60.68	61.97	1.29	X44786		ORG
9	9NFR160	GRD09-150	61.97	62.51	0.54	X44787		ORG
10	9NFR160	GRD09-150	62.51	64.07	1.56	X44788		ORG
11	9NFR160	GRD09-150	64.07	64.95	0.88	X44789		ORG
12	9NFR160	GRD09-150	64.95	66.80	1.85	X44790		ORG
13	9NFR160	GRD09-150				X44791	19	STD
14	9NFR160	GRD09-150	66.80	68.34	1.54	X44792		ORG
15	9NFR160	GRD09-150	68.34	69.02	0.68	X44793		ORG
16	9NFR160	GRD09-150	69.02	69.51	0.49	X44794		ORG
17	9NFR160	GRD09-150	69.51	70.57	1.06	X44795		ORG
18	9NFR160	GRD09-150	70.57	71.75	1.18	X44796		ORG
19	9NFR160	GRD09-150	71.75	73.08	1.33	X44797		ORG
20	9NFR160	GRD09-150	73.08	74.35	1.27	X44798		ORG
21	9NFR160	GRD09-150	74.35	76.44	2.09	X44799		ORG
22	9NFR160	GRD09-150	76.44	77.72	1.28	X44800		OPD
23	9NFR160	GRD09-150	76.44	77.72	1.28	X44801	X44800	DUP
24	9NFR160	GRD09-150	77.72	79.19	1.47	X44802		ORG
25	9NFR160	GRD09-150	79.19	80.77	1.58	X44803		ORG
26	9NFR160	GRD09-150	80.77	81.97	1.20	X44804		ORG
27	9NFR160	GRD09-150	81.97	83.82	1.85	X44805		ORG
28	9NFR160	GRD09-150	83.82	85.70	1.88	X44806		ORG
29	9NFR160	GRD09-150	85.70	86.87	1.17	X44807		ORG
30	9NFR160	GRD09-150	86.87	88.75	1.88	X44808		ORG
31	9NFR160	GRD09-150	88.75	89.92	1.17	X44809		ORG
32	9NFR160	GRD09-150	89.92	91.46	1.54	X44810		ORG
33	9NFR160	GRD09-150	91.46	92.18	0.72	X44811		ORG
34	9NFR160	GRD09-150	92.18	92.62	0.44	X44812		ORG
35	9NFR160	GRD09-150	92.62	92.98	0.36	X44813		ORG
36	9NFR160	GRD09-150	92.98	95.32	2.34	X44814		ORG
37	9NFR160	GRD09-150	95.32	95.70	0.38	X44815		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR162	GRD09-147	82.50	84.56	2.06	X47986		ORG
2	9NFR162	GRD09-147	84.56	86.00	1.44	X47987		ORG
3	9NFR162	GRD09-147	86.00	88.00	2.00	X47988		ORG
4	9NFR162	GRD09-147	88.00	90.00	2.00	X47989		ORG
5	9NFR162	GRD09-147	90.00	91.63	1.63	X47990		ORG
6	9NFR162	GRD09-147	91.63	93.03	1.40	X47991		ORG
7	9NFR162	GRD09-147				X47992	19	STD
8	9NFR162	GRD09-147	93.03	93.82	0.79	X47993		ORG
9	9NFR162	GRD09-147	93.82	94.18	0.36	X47994		ORG
10	9NFR162	GRD09-147	94.18	96.13	1.95	X47995		ORG
11	9NFR162	GRD09-147	96.13	98.24	2.11	X47996		ORG
12	9NFR162	GRD09-147	98.24	98.78	0.54	X47997		ORG
13	9NFR162	GRD09-147	98.78	99.74	0.96	X47998		ORG
14	9NFR162	GRD09-147	99.74	100.64	0.90	X47999		ORG
15	9NFR162	GRD09-147	100.64	101.93	1.29	X48000		ORG
16	9NFR162	GRD09-147	101.93	102.61	0.68	X45751		ORG
17	9NFR162	GRD09-147	102.61	103.57	0.96	X45752		ORG
18	9NFR162	GRD09-147	103.57	105.00	1.43	X45753		ORG
19	9NFR162	GRD09-147	105.00	106.97	1.97	X45754		ORG
20	9NFR162	GRD09-147	106.97	107.92	0.95	X45755		OCD
21	9NFR162	GRD09-147	106.97	107.92	0.95	X45756	X45755	DUC
22	9NFR162	GRD09-147	107.92	110.03	2.11	X45757		ORG
23	9NFR162	GRD09-147	110.03	111.08	1.05	X45758		ORG
24	9NFR162	GRD09-147	111.08	111.86	0.78	X45759		ORG
25	9NFR162	GRD09-147	111.86	113.50	1.64	X45760		ORG
26	9NFR162	GRD09-147	113.50	115.57	2.07	X45761		ORG
27	9NFR162	GRD09-147	115.57	116.50	0.93	X45762		ORG
28	9NFR162	GRD09-147	116.50	117.94	1.44	X45763		ORG
29	9NFR162	GRD09-147	117.94	119.00	1.06	X45764		ORG
30	9NFR162	GRD09-147	119.00	121.00	2.00	X45765		ORG
31	9NFR162	GRD09-147	121.00	123.00	2.00	X45766		OPD
32	9NFR162	GRD09-147	121.00	123.00	2.00	X45767	X45766	DUP
33	9NFR162	GRD09-147	123.00	124.87	1.87	X45768		ORG
34	9NFR162	GRD09-147	124.87	125.85	0.98	X45769		ORG
35	9NFR162	GRD09-147				X45770		BLK
36	9NFR162	GRD09-147	125.85	127.00	1.15	X45771		ORG
37	9NFR162	GRD09-147	127.00	129.00	2.00	X45772		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR163	GRD09-150	95.70	97.02	1.32	X44816		
2	9NFR163	GRD09-150	97.02	97.99	0.97	X44817		
3	9NFR163	GRD09-150	97.99	99.84	1.85	X44818		
4	9NFR163	GRD09-150	99.84	101.44	1.60	X44819		
5	9NFR163	GRD09-150	101.44	103.02	1.58	X44820		
6	9NFR163	GRD09-150	103.02	104.30	1.28	X44821		
7	9NFR163	GRD09-150	104.30	105.74	1.44	X44822		
8	9NFR163	GRD09-150	105.74	106.96	1.22	X44823		
9	9NFR163	GRD09-150	106.96	107.91	0.95	X44824		OFD
10	9NFR163	GRD09-150	106.96	107.91	0.95	X44825	X44824	DUF
11	9NFR163	GRD09-150	107.91	109.29	1.38	X44826		
12	9NFR163	GRD09-150	109.29	110.58	1.29	X44827		
13	9NFR163	GRD09-150	110.58	112.68	2.10	X44828		
14	9NFR163	GRD09-150				X44829		BLK
15	9NFR163	GRD09-150	112.68	114.80	2.12	X44830		OPD
16	9NFR163	GRD09-150	112.68	114.80	2.12	X44831	X44830	DUP
17	9NFR163	GRD09-150	114.80	116.61	1.81	X44832		
18	9NFR163	GRD09-150				X44833	13	STD
19	9NFR163	GRD09-150	116.61	118.33	1.72	X44834		
20	9NFR163	GRD09-150	118.33	118.90	0.57	X44835		
21	9NFR163	GRD09-150	118.90	120.82	1.92	X44836		
22	9NFR163	GRD09-150	120.82	121.19	0.37	X44837		
23	9NFR163	GRD09-150	121.19	123.44	2.25	X44838		
24	9NFR163	GRD09-150	123.44	124.20	0.76	X44839		
25	9NFR163	GRD09-150	124.20	126.00	1.80	X44840		
26	9NFR163	GRD09-150	126.00	127.01	1.01	X44841		
27	9NFR163	GRD09-150	127.01	128.85	1.84	X44842		
28	9NFR163	GRD09-150	128.85	130.69	1.84	X44843		
29	9NFR163	GRD09-150	130.69	132.59	1.90	X44844		
30	9NFR163	GRD09-150	132.59	134.32	1.73	X44845		
31	9NFR163	GRD09-150	134.32	136.23	1.91	X44846		
32	9NFR163	GRD09-150	136.23	137.93	1.70	X44847		
33	9NFR163	GRD09-150	137.93	139.64	1.71	X44848		
34	9NFR163	GRD09-150	139.64	141.43	1.79	X44849		
35	9NFR163	GRD09-150	141.43	142.89	1.46	X44850		
36	9NFR163	GRD09-150	142.89	143.82	0.93	X44851		
37	9NFR163	GRD09-150	143.82	145.36	1.54	X44852		

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR164	GRD09-150	145.36	145.74	0.38	X44853		
2	9NFR164	GRD09-150	145.74	146.07	0.33	X44854		
3	9NFR164	GRD09-150	146.07	147.28	1.21	X44855		
4	9NFR164	GRD09-150	147.28	148.83	1.55	X44856		
5	9NFR164	GRD09-150	148.83	149.93	1.10	X44857		
6	9NFR164	GRD09-150	149.93	150.88	0.95	X44858		
7	9NFR164	GRD09-150	150.88	151.87	0.99	X44859		
8	9NFR164	GRD09-150	151.87	153.56	1.69	X44860		
9	9NFR164	GRD09-150	153.56	154.60	1.04	X44861		
10	9NFR164	GRD09-150	154.60	156.07	1.47	X44862		
11	9NFR164	GRD09-150	156.07	157.76	1.69	X44863		
12	9NFR164	GRD09-150	157.76	158.13	0.37	X44864		
13	9NFR164	GRD09-150	158.13	160.02	1.89	X44865		
14	9NFR164	GRD09-150	160.02	161.40	1.38	X44866		
15	9NFR164	GRD09-150	161.40	162.80	1.40	X44867		
16	9NFR164	GRD09-150	162.80	164.50	1.70	X44868		
17	9NFR164	GRD09-150	164.50	165.82	1.32	X44869		
18	9NFR164	GRD09-150	165.82	166.67	0.85	X44870		
19	9NFR164	GRD09-150	166.67	168.58	1.91	X44871		
20	9NFR164	GRD09-150	168.58	170.31	1.73	X44872		OCD
21	9NFR164	GRD09-150	168.58	170.31	1.73	X44873	X44872	DUC
22	9NFR164	GRD09-150				X44874		BLK
23	9NFR164	GRD09-150	170.31	172.00	1.69	X44875		
24	9NFR164	GRD09-150	172.00	172.97	0.97	X44876		
25	9NFR164	GRD09-150	172.97	174.60	1.63	X44877		
26	9NFR164	GRD09-150	174.60	176.77	2.17	X44878		
27	9NFR164	GRD09-150	176.77	178.31	1.54	X44879		
28	9NFR164	GRD09-150	178.31	180.05	1.74	X44880		OPD
29	9NFR164	GRD09-150	178.31	180.05	1.74	X44881	X44880	DUP
30	9NFR164	GRD09-150				X44882	19	STD
31	9NFR164	GRD09-150	180.05	181.56	1.51	X44883		
32	9NFR164	GRD09-150	181.56	183.33	1.77	X44884		
33	9NFR164	GRD09-150	183.33	184.65	1.32	X44885		
34	9NFR164	GRD09-150	184.65	185.07	0.42	X44886		
35	9NFR164	GRD09-150	185.07	186.44	1.37	X44887		
36	9NFR164	GRD09-150	186.44	187.75	1.31	X44888		
37	9NFR164	GRD09-150	187.75	190.19	2.44	X44889		

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR165	GRD09-147	129.00	131.00	2.00	X45773		ORG
2	9NFR165	GRD09-147	131.00	132.28	1.28	X45774		ORG
3	9NFR165	GRD09-147	132.28	134.00	1.72	X45775		ORG
4	9NFR165	GRD09-147	134.00	135.54	1.54	X45776		ORG
5	9NFR165	GRD09-147				X45777	13	STD
6	9NFR165	GRD09-147	135.54	136.33	0.79	X45778		ORG
7	9NFR165	GRD09-147	136.33	136.73	0.40	X45779		ORG
8	9NFR165	GRD09-147	136.73	137.25	0.52	X45780		ORG
9	9NFR165	GRD09-147	137.25	138.02	0.77	X45781		ORG
10	9NFR165	GRD09-147	138.02	139.01	0.99	X45782		ORG
11	9NFR165	GRD09-147	139.01	140.34	1.33	X45783		ORG
12	9NFR165	GRD09-147	140.34	140.71	0.37	X45784		ORG
13	9NFR165	GRD09-147				X45785		BLK
14	9NFR165	GRD09-147	140.71	141.22	0.51	X45786		ORG
15	9NFR165	GRD09-147	141.22	143.00	1.78	X45787		ORG
16	9NFR165	GRD09-147	143.00	144.65	1.65	X45788		ORG
17	9NFR165	GRD09-147	144.65	145.49	0.84	X45789		ORG
18	9NFR165	GRD09-147	145.49	146.10	0.61	X45790		ORG
19	9NFR165	GRD09-147	146.10	146.57	0.47	X45791		ORG
20	9NFR165	GRD09-147	146.57	147.50	0.93	X45792		ORG
21	9NFR165	GRD09-147	147.50	148.90	1.40	X45793		ORG
22	9NFR165	GRD09-147	148.90	150.32	1.42	X45794		ORG
23	9NFR165	GRD09-147	150.32	151.18	0.86	X45795		OCD
24	9NFR165	GRD09-147	150.32	151.18	0.86	X45796	X45795	DUC
25	9NFR165	GRD09-147	151.18	153.00	1.82	X45797		ORG
26	9NFR165	GRD09-147	153.00	154.01	1.01	X45798		ORG
27	9NFR165	GRD09-147	154.01	155.43	1.42	X45799		ORG
28	9NFR165	GRD09-147	155.43	157.00	1.57	X45800		ORG
29	9NFR165	GRD09-147	157.00	158.29	1.29	X45801		ORG
30	9NFR165	GRD09-147	158.29	160.02	1.73	X45802		ORG
31	9NFR165	GRD09-147	160.02	160.72	0.70	X45803		ORG
32	9NFR165	GRD09-147	160.72	161.80	1.08	X45804		ORG
33	9NFR165	GRD09-147	161.80	163.49	1.69	X45805		OPD
34	9NFR165	GRD09-147	161.80	163.49	1.69	X45806	X45805	DUP
35	9NFR165	GRD09-147	163.49	165.00	1.51	X45807		ORG
36	9NFR165	GRD09-147	165.00	166.50	1.50	X45808		ORG
37	9NFR165	GRD09-147	166.50	167.76	1.26	X45809		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR166	GRD09-147	167.76	169.45	1.69	X45810		ORG
2	9NFR166	GRD09-147	169.45	171.50	2.05	X45811		ORG
3	9NFR166	GRD09-147	171.50	173.59	2.09	X45812		ORG
4	9NFR166	GRD09-147	173.59	175.19	1.60	X45813		ORG
5	9NFR166	GRD09-147	175.19	175.85	0.66	X45814		ORG
6	9NFR166	GRD09-147	175.85	177.46	1.61	X45815		ORG
7	9NFR166	GRD09-147	177.46	177.89	0.43	X45816		ORG
8	9NFR166	GRD09-147				X45817	5E	STD
9	9NFR166	GRD09-147	177.89	179.72	1.83	X45818		ORG
10	9NFR166	GRD09-147	179.72	180.74	1.02	X45819		ORG
11	9NFR166	GRD09-147	180.74	182.33	1.59	X45820		ORG
12	9NFR166	GRD09-147	182.33	184.00	1.67	X45821		ORG
13	9NFR166	GRD09-147	184.00	185.34	1.34	X45822		ORG
14	9NFR166	GRD09-147	185.34	187.13	1.79	X45823		ORG
15	9NFR166	GRD09-147	187.13	188.50	1.37	X45824		ORG
16	9NFR166	GRD09-147	188.50	189.46	0.96	X45825		ORG
17	9NFR166	GRD09-147	189.46	190.47	1.01	X45826		ORG
18	9NFR166	GRD09-147				X45827		BLK
19	9NFR166	GRD09-147	190.47	192.50	2.03	X45828		ORG
20	9NFR166	GRD09-147	192.50	194.50	2.00	X45829		ORG
21	9NFR166	GRD09-147	194.50	196.46	1.96	X45830		ORG
22	9NFR166	GRD09-147	196.46	197.60	1.14	X45831		ORG
23	9NFR166	GRD09-147	197.60	198.79	1.19	X45832		OCD
24	9NFR166	GRD09-147	197.60	198.79	1.19	X45833	X45832	DUC
25	9NFR166	GRD09-147	198.79	200.29	1.50	X45834		ORG
26	9NFR166	GRD09-147	200.29	201.50	1.21	X45835		ORG
27	9NFR166	GRD09-147	201.50	202.92	1.42	X45836		ORG
28	9NFR166	GRD09-147	202.92	204.03	1.11	X45837		ORG
29	9NFR166	GRD09-147	204.03	204.59	0.56	X45838		ORG
30	9NFR166	GRD09-147	204.59	205.00	0.41	X45839		ORG
31	9NFR166	GRD09-147	205.00	206.50	1.50	X45840		ORG
32	9NFR166	GRD09-147	206.50	208.00	1.50	X45841		OPD
33	9NFR166	GRD09-147	206.50	208.00	1.50	X45842	X45841	DUP
34	9NFR166	GRD09-147	208.00	209.24	1.24	X45843		ORG
35	9NFR166	GRD09-147	209.24	211.00	1.76	X45844		ORG
36	9NFR166	GRD09-147	211.00	213.00	2.00	X45845		ORG
37	9NFR166	GRD09-147	213.00	215.00	2.00	X45846		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR167	GRD09-150	190.19	192.25	2.06	X44890		ORG
2	9NFR167	GRD09-150	192.25	193.22	0.97	X44891		ORG
3	9NFR167	GRD09-150	193.22	194.96	1.74	X44892		ORG
4	9NFR167	GRD09-150	194.96	196.60	1.64	X44893		ORG
5	9NFR167	GRD09-150	196.60	198.60	2.00	X44894		ORG
6	9NFR167	GRD09-150	198.60	200.19	1.59	X44895		ORG
7	9NFR167	GRD09-150	200.19	200.68	0.49	X44896		ORG
8	9NFR167	GRD09-150	200.68	202.69	2.01	X44897		ORG
9	9NFR167	GRD09-150	202.69	203.38	0.69	X44898		ORG
10	9NFR167	GRD09-150	203.38	205.70	2.32	X44899		ORG
11	9NFR167	GRD09-150	205.70	206.74	1.04	X44900		ORG
12	9NFR167	GRD09-150	206.74	208.86	2.12	X44901		ORG
13	9NFR167	GRD09-150	208.86	209.51	0.65	X44902		ORG
14	9NFR167	GRD09-150				X44903	20A	STD
15	9NFR167	GRD09-150	209.51	210.59	1.08	X44904		ORG
16	9NFR167	GRD09-150	210.59	211.84	1.25	X44905		OFD
17	9NFR167	GRD09-150	210.59	211.84	1.25	X44906	X44905	DUF
18	9NFR167	GRD09-150	211.84	213.66	1.82	X44907		ORG
19	9NFR167	GRD09-150				X44908		BLK
20	9NFR167	GRD09-150	213.66	215.73	2.07	X44909		ORG
21	9NFR167	GRD09-150	215.73	216.58	0.85	X44910		ORG
22	9NFR167	GRD09-150	216.58	217.93	1.35	X44911		ORG
23	9NFR167	GRD09-150	217.93	219.44	1.51	X44912		OPD
24	9NFR167	GRD09-150	217.93	219.44	1.51	X44913	X44912	DUP
25	9NFR167	GRD09-150	219.44	220.56	1.12	X44914		ORG
26	9NFR167	GRD09-150	220.56	221.63	1.07	X44915		ORG
27	9NFR167	GRD09-150	221.63	223.62	1.99	X44916		ORG
28	9NFR167	GRD09-150	223.62	224.20	0.58	X44917		ORG
29	9NFR167	GRD09-150	224.20	225.38	1.18	X44918		ORG
30	9NFR167	GRD09-150	225.38	227.46	2.08	X44919		ORG
31	9NFR167	GRD09-150	227.46	228.70	1.24	X44920		ORG
32	9NFR167	GRD09-150	228.70	229.47	0.77	X44921		ORG
33	9NFR167	GRD09-150	229.47	229.97	0.50	X44922		ORG
34	9NFR167	GRD09-150	229.97	231.28	1.31	X44923		ORG
35	9NFR167	GRD09-150	231.28	232.31	1.03	X44924		ORG
36	9NFR167	GRD09-150	232.31	233.94	1.63	X44925		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR168	GRD09-150	236.08	237.82	1.74	X44927		ORG
2	9NFR168	GRD09-150	237.82	239.62	1.80	X44928		ORG
3	9NFR168	GRD09-150	239.62	241.02	1.40	X44929		ORG
4	9NFR168	GRD09-150	241.02	242.36	1.34	X44930		ORG
5	9NFR168	GRD09-150				X44931	13	STD
6	9NFR168	GRD09-150	242.36	242.85	0.49	X44932		ORG
7	9NFR168	GRD09-150	242.85	243.84	0.99	X44933		ORG
8	9NFR168	GRD09-150	243.84	245.66	1.82	X44934		OPD
9	9NFR168	GRD09-150	243.84	245.66	1.82	X44935	X44934	DUP
10	9NFR168	GRD09-150	245.66	247.30	1.64	X44936		ORG
11	9NFR168	GRD09-150	247.30	249.20	1.90	X44937		ORG
12	9NFR168	GRD09-150	249.20	249.94	0.74	X44938		ORG
13	9NFR168	GRD09-150	249.94	250.40	0.46	X44939		ORG
14	9NFR168	GRD09-150	250.40	251.64	1.24	X44940		ORG
15	9NFR168	GRD09-150	251.64	252.87	1.23	X44941		ORG
16	9NFR168	GRD09-150	252.87	253.72	0.85	X44942		ORG
17	9NFR168	GRD09-150	253.72	255.14	1.42	X44943		ORG
18	9NFR168	GRD09-150	255.14	256.85	1.71	X44944		ORG
19	9NFR168	GRD09-150	256.85	257.95	1.10	X44945		ORG
20	9NFR168	GRD09-150	257.95	258.85	0.90	X44946		ORG
21	9NFR168	GRD09-150	258.85	260.53	1.68	X44947		ORG
22	9NFR168	GRD09-150	260.53	262.28	1.75	X44948		ORG
23	9NFR168	GRD09-150	262.28	264.13	1.85	X44949		OCD
24	9NFR168	GRD09-150	262.28	264.13	1.85	X44950	X44949	DUC
25	9NFR168	GRD09-150	264.13	265.45	1.32	X44951		ORG
26	9NFR168	GRD09-150	265.45	266.59	1.14	X44952		ORG
27	9NFR168	GRD09-150	266.59	268.22	1.63	X44953		ORG
28	9NFR168	GRD09-150	268.22	269.83	1.61	X44954		ORG
29	9NFR168	GRD09-150	269.83	271.27	1.44	X44955		ORG
30	9NFR168	GRD09-150	271.27	272.82	1.55	X44956		ORG
31	9NFR168	GRD09-150				X44957		BLK
32	9NFR168	GRD09-150	272.82	274.32	1.50	X44958		ORG
33	9NFR168	GRD09-150	274.32	276.12	1.80	X44959		ORG
34	9NFR168	GRD09-150	276.12	277.79	1.67	X44960		ORG
35	9NFR168	GRD09-150	277.79	279.38	1.59	X44961		ORG
36	9NFR168	GRD09-150	279.38	280.44	1.06	X44962		ORG
37	9NFR168	GRD09-150	280.44	281.75	1.31	X44963		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR169	GRD09-147	215.00	217.00	2.00	X45847		ORG
2	9NFR169	GRD09-147	217.00	218.50	1.50	X45848		ORG
3	9NFR169	GRD09-147	218.50	220.00	1.50	X45849		ORG
4	9NFR169	GRD09-147	220.00	221.89	1.89	X45850		ORG
5	9NFR169	GRD09-147				X45851	74	STD
6	9NFR169	GRD09-147	221.89	223.50	1.61	X45852		ORG
7	9NFR169	GRD09-147	223.50	224.53	1.03	X45853		ORG
8	9NFR169	GRD09-147	224.53	224.84	0.31	X45854		ORG
9	9NFR169	GRD09-147	224.84	225.45	0.61	X45855		ORG
10	9NFR169	GRD09-147	225.45	226.39	0.94	X45856		ORG
11	9NFR169	GRD09-147	226.39	226.77	0.38	X45857		ORG
12	9NFR169	GRD09-147				X45858		BLK
13	9NFR169	GRD09-147	226.77	227.87	1.10	X45859		ORG
14	9NFR169	GRD09-147	227.87	228.35	0.48	X45860		ORG
15	9NFR169	GRD09-147	228.35	228.78	0.43	X45861		ORG
16	9NFR169	GRD09-147	228.78	230.13	1.35	X45862		OCD
17	9NFR169	GRD09-147	228.78	230.13	1.35	X45863	X45862	DUC
18	9NFR169	GRD09-147	230.13	230.53	0.40	X45864		ORG
19	9NFR169	GRD09-147	230.53	231.50	0.97	X45865		ORG
20	9NFR169	GRD09-147	231.50	232.90	1.40	X45866		ORG
21	9NFR169	GRD09-147	232.90	233.34	0.44	X45867		ORG
22	9NFR169	GRD09-147	233.34	233.74	0.40	X45868		ORG
23	9NFR169	GRD09-147	233.74	234.50	0.76	X45869		OPD
24	9NFR169	GRD09-147	233.74	234.50	0.76	X45870	X45869	DUP
25	9NFR169	GRD09-147	234.50	236.50	2.00	X45871		ORG
26	9NFR169	GRD09-147	236.50	238.21	1.71	X45872		ORG
27	9NFR169	GRD09-147	238.21	239.03	0.82	X45873		ORG
28	9NFR169	GRD09-147	239.03	241.03	2.00	X45874		ORG
29	9NFR169	GRD09-147	241.03	242.50	1.47	X45875		ORG
30	9NFR169	GRD09-147	242.50	244.00	1.50	X45876		ORG
31	9NFR169	GRD09-147	244.00	246.00	2.00	X45877		ORG
32	9NFR169	GRD09-147	246.00	248.00	2.00	X45878		ORG
33	9NFR169	GRD09-147	248.00	249.26	1.26	X45879		ORG
34	9NFR169	GRD09-147	249.26	251.03	1.77	X45880		ORG
35	9NFR169	GRD09-147	251.03	251.90	0.87	X45881		ORG
36	9NFR169	GRD09-147	251.90	253.00	1.10	X45882		ORG
37	9NFR169	GRD09-147	253.00	254.56	1.56	X45883		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR170	GRD09-150	281.75	282.75	1.00	X44964		OCD
2	9NFR170	GRD09-150	281.75	282.75	1.00	X44965	X44964	DUC
3	9NFR170	GRD09-150	282.75	283.46	0.71	X44966		ORG
4	9NFR170	GRD09-150	283.46	285.25	1.79	X44967		ORG
5	9NFR170	GRD09-150	285.25	286.51	1.26	X44968		ORG
6	9NFR170	GRD09-150	286.51	287.43	0.92	X44969		ORG
7	9NFR170	GRD09-150	287.43	288.82	1.39	X44970		ORG
8	9NFR170	GRD09-150	288.82	290.45	1.63	X44971		ORG
9	9NFR170	GRD09-150	290.45	291.92	1.47	X44972		ORG
10	9NFR170	GRD09-150	291.92	293.24	1.32	X44973		ORG
11	9NFR170	GRD09-150	293.24	294.12	0.88	X44974		ORG
12	9NFR170	GRD09-150	294.12	294.53	0.41	X44975		ORG
13	9NFR170	GRD09-150	294.53	295.66	1.13	X44976		ORG
14	9NFR170	GRD09-150	295.66	296.25	0.59	X44977		ORG
15	9NFR170	GRD09-150	296.25	298.71	2.46	X44978		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR172	GRD09-147	254.56	256.38	1.82	X45884		ORG
2	9NFR172	GRD09-147	256.38	256.80	0.42	X45885		ORG
3	9NFR172	GRD09-147	256.80	258.14	1.34	X45886		ORG
4	9NFR172	GRD09-147	258.14	260.00	1.86	X45887		ORG
5	9NFR172	GRD09-147	260.00	262.00	2.00	X45888		ORG
6	9NFR172	GRD09-147	262.00	263.12	1.12	X45889		ORG
7	9NFR172	GRD09-147	263.12	265.00	1.88	X45890		ORG
8	9NFR172	GRD09-147	265.00	266.34	1.34	X45891		OCD
9	9NFR172	GRD09-147	265.00	266.34	1.34	X45892	X45891	DUC
10	9NFR172	GRD09-147	266.34	266.70	0.36	X45893		ORG
11	9NFR172	GRD09-147	266.70	267.97	1.27	X45894		ORG
12	9NFR172	GRD09-147	267.97	269.00	1.03	X45895		ORG
13	9NFR172	GRD09-147	269.00	271.00	2.00	X45896		ORG
14	9NFR172	GRD09-147	271.00	273.00	2.00	X45897		ORG
15	9NFR172	GRD09-147	273.00	274.57	1.57	X45898		ORG
16	9NFR172	GRD09-147	274.57	275.36	0.79	X45899		ORG
17	9NFR172	GRD09-147	275.36	277.05	1.69	X45900		ORG
18	9NFR172	GRD09-147	277.05	278.56	1.51	X45901		ORG
19	9NFR172	GRD09-147				X45902	20A	STD
20	9NFR172	GRD09-147	278.56	280.50	1.94	X45903		ORG
21	9NFR172	GRD09-147	280.50	282.50	2.00	X45904		ORG
22	9NFR172	GRD09-147	282.50	284.47	1.97	X45905		ORG
23	9NFR172	GRD09-147	284.47	285.78	1.31	X45906		ORG
24	9NFR172	GRD09-147	285.78	286.20	0.42	X45907		ORG
25	9NFR172	GRD09-147	286.20	287.32	1.12	X45908		ORG
26	9NFR172	GRD09-147	287.32	287.97	0.65	X45909		ORG
27	9NFR172	GRD09-147	287.97	290.00	2.03	X45910		OPD
28	9NFR172	GRD09-147	287.97	290.00	2.03	X45911	X45910	DUP
29	9NFR172	GRD09-147	290.00	291.55	1.55	X45912		ORG
30	9NFR172	GRD09-147	291.55	292.91	1.36	X45913		ORG
31	9NFR172	GRD09-147	292.91	293.22	0.31	X45914		ORG
32	9NFR172	GRD09-147	293.22	295.25	2.03	X45915		ORG
33	9NFR172	GRD09-147				X45916		BLK
34	9NFR172	GRD09-147	295.25	297.25	2.00	X45917		ORG
35	9NFR172	GRD09-147	297.25	298.50	1.25	X45918		ORG
36	9NFR172	GRD09-147	298.50	300.75	2.25	X45919		ORG
37	9NFR172	GRD09-147	300.75	303.28	2.53	X45920		ORG

31	9NFR174	GRD09-153	10.67	11.65	0.98	X43946		OPD
32	9NFR174	GRD09-153	10.67	11.65	0.98	X43947	X43946	DUP
33	9NFR174	GRD09-153	11.65	12.19	0.54	X43948		ORG
34	9NFR174	GRD09-153	12.19	13.38	1.19	X43949		ORG
35	9NFR174	GRD09-153	13.38	15.24	1.86	X43950		ORG
36	9NFR174	GRD09-153	15.24	17.20	1.96	X43951		ORG
37	9NFR174	GRD09-153	17.20	18.29	1.09	X43952		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR178	GRD09-153	18.29	19.50	1.21	X43953		ORG
2	9NFR178	GRD09-153	19.50	21.34	1.84	X43954		ORG
3	9NFR178	GRD09-153	21.34	22.70	1.36	X43955		ORG
4	9NFR178	GRD09-153	22.70	24.38	1.68	X43956		ORG
5	9NFR178	GRD09-153	24.38	27.43	3.05	X43957		ORG
6	9NFR178	GRD09-153	27.43	30.48	3.05	X43958		ORG
7	9NFR178	GRD09-153	30.48	33.53	3.05	X43959		ORG
8	9NFR178	GRD09-153	33.53	35.48	1.95	X43960		OCD
9	9NFR178	GRD09-153	33.53	35.48	1.95	X43961	X43960	DUC
10	9NFR178	GRD09-153	35.48	36.45	0.97	X43962		ORG
11	9NFR178	GRD09-153	36.45	37.20	0.75	X43963		ORG
12	9NFR178	GRD09-153	37.20	38.82	1.62	X43964		ORG
13	9NFR178	GRD09-153	38.82	39.70	0.88	X43965		ORG
14	9NFR178	GRD09-153	39.70	41.64	1.94	X43966		ORG
15	9NFR178	GRD09-153	41.64	43.67	2.03	X43967		ORG
16	9NFR178	GRD09-153	43.67	45.72	2.05	X43968		ORG
17	9NFR178	GRD09-153			0.00	X43969	74	STD
18	9NFR178	GRD09-153	45.72	47.84	2.12	X43970		ORG
19	9NFR178	GRD09-153	47.84	48.77	0.93	X43971		ORG
20	9NFR178	GRD09-153	48.77	49.50	0.73	X43972		ORG
21	9NFR178	GRD09-153	49.50	51.82	2.32	X43973		ORG
22	9NFR178	GRD09-153	51.82	53.20	1.38	X43974		ORG
23	9NFR178	GRD09-153	53.20	54.86	1.66	X43975		ORG
24	9NFR178	GRD09-153			0.00	X43976		BLK
25	9NFR178	GRD09-153	54.86	56.10	1.24	X43977		ORG
26	9NFR178	GRD09-153	56.10	57.62	1.52	X43978		ORG
27	9NFR178	GRD09-153	57.62	59.53	1.91	X43979		ORG
28	9NFR178	GRD09-153	59.53	60.96	1.43	X43980		ORG
29	9NFR178	GRD09-153	60.96	62.68	1.72	X43981		ORG
30	9NFR178	GRD09-153	62.68	64.71	2.03	X43982		ORG
31	9NFR178	GRD09-153	64.71	66.57	1.86	X43983		OPD
32	9NFR178	GRD09-153	64.71	66.57	1.86	X43984	X43983	DUP
33	9NFR178	GRD09-153	66.57	68.53	1.96	X43985		ORG
34	9NFR178	GRD09-153	68.53	70.10	1.57	X43986		ORG
35	9NFR178	GRD09-153	70.10	70.87	0.77	X43987		ORG
36	9NFR178	GRD09-153	70.87	72.90	2.03	X43988		ORG
37	9NFR178	GRD09-153	72.90	74.90	2.00	X43989		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR180	GRD09-153	74.90	76.84	1.94	X43990		ORG
2	9NFR180	GRD09-153	76.84	78.03	1.19	X43991		ORG
3	9NFR180	GRD09-153	78.03	80.00	1.97	X43992		ORG
4	9NFR180	GRD09-153	80.00	82.00	2.00	X43993		ORG
5	9NFR180	GRD09-153	82.00	84.00	2.00	X43994		ORG
6	9NFR180	GRD09-153	84.00	86.00	2.00	X43995		OCD
7	9NFR180	GRD09-153	84.00	86.00	2.00	X43996	X43995	DUC
8	9NFR180	GRD09-153	86.00	88.00	2.00	X43997		ORG
9	9NFR180	GRD09-153	88.00	90.00	2.00	X43998		ORG
10	9NFR180	GRD09-153	90.00	90.90	0.90	X43999		ORG
11	9NFR180	GRD09-153	90.90	91.74	0.84	X44000		ORG
12	9NFR180	GRD09-153	91.74	93.21	1.47	X40601		ORG
13	9NFR180	GRD09-153			0.00	X40602	5E	STD
14	9NFR180	GRD09-153	93.21	94.49	1.28	X40603		ORG
15	9NFR180	GRD09-153	94.49	96.30	1.81	X40604		ORG
16	9NFR180	GRD09-153	96.30	97.06	0.76	X40605		ORG
17	9NFR180	GRD09-153	97.06	98.60	1.54	X40606		
18	9NFR180	GRD09-153	98.60	100.58	1.98	X40607		ORG
19	9NFR180	GRD09-153	100.58	101.20	0.62	X40608		ORG
20	9NFR180	GRD09-153	101.20	102.20	1.00	X40609		ORG
21	9NFR180	GRD09-153	102.20	103.63	1.43	X40610		ORG
22	9NFR180	GRD09-153	103.63	104.40	0.77	X40611		ORG
23	9NFR180	GRD09-153	104.40	105.29	0.89	X40612		ORG
24	9NFR180	GRD09-153			0.00	X40613		BLK
25	9NFR180	GRD09-153	105.29	106.68	1.39	X40614		ORG
26	9NFR180	GRD09-153	106.68	107.70	1.02	X40615		ORG
27	9NFR180	GRD09-153	107.70	109.73	2.03	X40616		ORG
28	9NFR180	GRD09-153	109.73	110.15	0.42	X40617		ORG
29	9NFR180	GRD09-153	110.15	112.00	1.85	X40618		ORG
30	9NFR180	GRD09-153	112.00	113.00	1.00	X40619		OPD
31	9NFR180	GRD09-153	112.00	113.00	1.00	X40620	X40619	DUP
32	9NFR180	GRD09-153	113.00	115.00	2.00	X40621		ORG
33	9NFR180	GRD09-153	115.00	116.45	1.45	X40622		ORG
34	9NFR180	GRD09-153	116.45	117.40	0.95	X40623		ORG
35	9NFR180	GRD09-153	117.40	118.52	1.12	X40624		ORG
36	9NFR180	GRD09-153	118.52	118.97	0.45	X40625		ORG
37	9NFR180	GRD09-153	118.97	119.51	0.54	X40626		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR182	GRD09-153	119.51	120.80	1.29	X40627		ORG
2	9NFR182	GRD09-153	120.80	121.92	1.12	X40628		ORG
3	9NFR182	GRD09-153	121.92	122.94	1.02	X40629		ORG
4	9NFR182	GRD09-153	122.94	123.37	0.43	X40630		ORG
5	9NFR182	GRD09-153	123.37	124.97	1.60	X40631		ORG
6	9NFR182	GRD09-153	124.97	126.40	1.43	X40632		OCD
7	9NFR182	GRD09-153	124.97	126.40	1.43	X40633	X40632	DUC
8	9NFR182	GRD09-153	126.40	128.02	1.62	X40634		ORG
9	9NFR182	GRD09-153	128.02	128.60	0.58	X40635		ORG
10	9NFR182	GRD09-153	128.60	130.60	2.00	X40636		ORG
11	9NFR182	GRD09-153	130.60	132.60	2.00	X40637		ORG
12	9NFR182	GRD09-153	132.60	134.52	1.92	X40638		ORG
13	9NFR182	GRD09-153	134.52	136.25	1.73	X40639		ORG
14	9NFR182	GRD09-153	136.25	138.25	2.00	X40640		ORG
15	9NFR182	GRD09-153			0.00	X40641		BLK
16	9NFR182	GRD09-153	138.25	140.25	2.00	X40642		ORG
17	9NFR182	GRD09-153	140.25	141.73	1.48	X40643		ORG
18	9NFR182	GRD09-153	141.73	144.48	2.75	X40644		ORG
19	9NFR182	GRD09-153	144.48	146.45	1.97	X40645		ORG
20	9NFR182	GRD09-153	146.45	148.50	2.05	X40646		ORG
21	9NFR182	GRD09-153	148.50	150.48	1.98	X40647		ORG
22	9NFR182	GRD09-153	150.48	151.10	0.62	X40648		ORG
23	9NFR182	GRD09-153	151.10	152.70	1.60	X40649		OPD
24	9NFR182	GRD09-153	151.10	152.70	1.60	X40650	X40649	DUP
25	9NFR182	GRD09-153	152.70	153.85	1.15	X40651		ORG
26	9NFR182	GRD09-153	153.85	155.67	1.82	X40652		ORG
27	9NFR182	GRD09-153	155.67	157.43	1.76	X40653		ORG
28	9NFR182	GRD09-153	157.43	157.94	0.51	X40654		ORG
29	9NFR182	GRD09-153	157.94	158.85	0.91	X40655		ORG
30	9NFR182	GRD09-153	158.85	159.95	1.10	X40656		ORG
31	9NFR182	GRD09-153	159.95	161.20	1.25	X40657		ORG
32	9NFR182	GRD09-153			0.00	X40658	5E	STD
33	9NFR182	GRD09-153	161.20	163.20	2.00	X40659		ORG
34	9NFR182	GRD09-153	163.20	165.20	2.00	X40660		ORG
35	9NFR182	GRD09-153	165.20	166.93	1.73	X40661		ORG
36	9NFR182	GRD09-153	166.93	168.60	1.67	X40662		ORG
37	9NFR182	GRD09-153	168.60	169.16	0.56	X40663		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR185	GRD09-153	169.16	171.20	2.04	X40664		ORG
2	9NFR185	GRD09-153	171.20	173.41	2.21	X40665		ORG
3	9NFR185	GRD09-153	173.41	175.30	1.89	X40666		ORG
4	9NFR185	GRD09-153	175.30	177.30	2.00	X40667		ORG
5	9NFR185	GRD09-153	177.30	179.30	2.00	X40668		ORG
6	9NFR185	GRD09-153	179.30	181.28	1.98	X40669		ORG
7	9NFR185	GRD09-153	181.28	182.80	1.52	X40670		ORG
8	9NFR185	GRD09-153	182.80	184.84	2.04	X40671		ORG
9	9NFR185	GRD09-153	184.84	186.08	1.24	X40672		ORG
10	9NFR185	GRD09-153	186.08	187.6	1.52	X40673		ORG
11	9NFR185	GRD09-153			0.00	X40674	19	STD
12	9NFR185	GRD09-153	187.6	189.54	1.94	X40675		ORG
13	9NFR185	GRD09-153	189.54	191.50	1.96	X40676		ORG
14	9NFR185	GRD09-153	191.50	193.22	1.72	X40677		ORG
15	9NFR185	GRD09-153	193.22	195.07	1.85	X40678		ORG
16	9NFR185	GRD09-153	195.07	197.00	1.93	X40679		ORG
17	9NFR185	GRD09-153	197.00	198.12	1.12	X40680		OCD
18	9NFR185	GRD09-153	197.00	198.12	1.12	X40681	X40680	DUC
19	9NFR185	GRD09-153	198.12	199.60	1.48	X40682		ORG
20	9NFR185	GRD09-153	199.60	200.64	1.04	X40683		ORG
21	9NFR185	GRD09-153	200.64	201.45	0.81	X40684		ORG
22	9NFR185	GRD09-153	201.45	203.42	1.97	X40685		ORG
23	9NFR185	GRD09-153	203.42	203.90	0.48	X40686		ORG
24	9NFR185	GRD09-153	203.90	205.79	1.89	X40687		ORG
25	9NFR185	GRD09-153	205.79	207.88	2.09	X40688		ORG
26	9NFR185	GRD09-153			0.00	X40689		BLK
27	9NFR185	GRD09-153	207.88	209.80	1.92	X40690		ORG
28	9NFR185	GRD09-153	209.80	211.84	2.04	X40691		ORG
29	9NFR185	GRD09-153	211.84	213.93	2.09	X40692		ORG
30	9NFR185	GRD09-153	213.93	215.73	1.80	X40693		ORG
31	9NFR185	GRD09-153	215.73	216.92	1.19	X40694		ORG
32	9NFR185	GRD09-153	216.92	218.53	1.61	X40695		OPD
33	9NFR185	GRD09-153	216.92	218.53	1.61	X40696	X40695	DUP
34	9NFR185	GRD09-153	218.53	220.41	1.88	X40697		ORG
35	9NFR185	GRD09-153	220.41	221.40	0.99	X40698		ORG
36	9NFR185	GRD09-153	221.40	223.38	1.98	X40699		ORG
37	9NFR185	GRD09-153	223.38	226.25	2.87	X40700		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR188	GRD09-153	226.25	227.85	1.60	X40701		ORG
2	9NFR188	GRD09-153	227.85	229.26	1.41	X40702		ORG
3	9NFR188	GRD09-153	229.26	230.75	1.49	X40703		ORG
4	9NFR188	GRD09-153	230.75	231.41	0.66	X40704		ORG
5	9NFR188	GRD09-153	231.41	233.53	2.12	X40705		ORG
6	9NFR188	GRD09-153	233.53	234.56	1.03	X40706		ORG
7	9NFR188	GRD09-153	234.56	235.78	1.22	X40707		ORG
8	9NFR188	GRD09-153			0.00	X40708	19	STD
9	9NFR188	GRD09-153	235.78	237.49	1.71	X40709		ORG
10	9NFR188	GRD09-153	237.49	238.48	0.99	X40710		ORG
11	9NFR188	GRD09-153	238.48	239.92	1.44	X40711		ORG
12	9NFR188	GRD09-153	239.92	240.74	0.82	X40712		ORG
13	9NFR188	GRD09-153	240.74	241.56	0.82	X40713		ORG
14	9NFR188	GRD09-153	241.56	243.58	2.02	X40714		ORG
15	9NFR188	GRD09-153	243.58	245.07	1.49	X40715		OCD
16	9NFR188	GRD09-153	243.58	245.07	1.49	X40716	X40715	DUC
17	9NFR188	GRD09-153	245.07	246.43	1.36	X40717		ORG
18	9NFR188	GRD09-153	246.43	248.00	1.57	X40718		ORG
19	9NFR188	GRD09-153	248.00	249.91	1.91	X40719		ORG
20	9NFR188	GRD09-153	249.91	251.05	1.14	X40720		ORG
21	9NFR188	GRD09-153	251.05	252.66	1.61	X40721		ORG
22	9NFR188	GRD09-153	252.66	253.93	1.27	X40722		ORG
23	9NFR188	GRD09-153	253.93	255.90	1.97	X40723		ORG
24	9NFR188	GRD09-153	255.90	257.37	1.47	X40724		OPD
25	9NFR188	GRD09-153	255.90	257.37	1.47	X40725	X40724	DUP
26	9NFR188	GRD09-153	257.37	258.55	1.18	X40726		ORG
27	9NFR188	GRD09-153	258.55	260.36	1.81	X40727		ORG
28	9NFR188	GRD09-153	260.36	262.13	1.77	X40728		ORG
29	9NFR188	GRD09-153	262.13	263.53	1.40	X40729		ORG
30	9NFR188	GRD09-153	263.53	263.89	0.36	X40730		ORG
31	9NFR188	GRD09-153			0.00	X40731		BLK
32	9NFR188	GRD09-153	263.89	264.94	1.05	X40732		ORG
33	9NFR188	GRD09-153	264.94	266.00	1.06	X40733		ORG
34	9NFR188	GRD09-153	266.00	266.33	0.33	X40734		ORG
35	9NFR188	GRD09-153	266.33	267.87	1.54	X40735		ORG
36	9NFR188	GRD09-153	267.87	269.05	1.18	X40736		ORG
37	9NFR188	GRD09-153	269.05	271.12	2.07	X40737		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR190	GRD09-153	271.12	273.07	1.95	X40738		ORG
2	9NFR190	GRD09-153	273.07	274.90	1.83	X40739		ORG
3	9NFR190	GRD09-153	274.90	276.21	1.31	X40740		ORG
4	9NFR190	GRD09-153	276.21	276.76	0.55	X40741		ORG
5	9NFR190	GRD09-153	276.76	278.90	2.14	X40742		ORG
6	9NFR190	GRD09-153	278.90	280.73	1.83	X40743		OCD
7	9NFR190	GRD09-153	278.90	280.73	1.83	X40744	X40743	DUC
8	9NFR190	GRD09-153	280.73	282.75	2.02	X40745		ORG
9	9NFR190	GRD09-153	282.75	284.75	2.00	X40746		ORG
10	9NFR190	GRD09-153	284.75	286.75	2.00	X40747		ORG
11	9NFR190	GRD09-153	286.75	288.75	2.00	X40748		ORG
12	9NFR190	GRD09-153	288.75	290.75	2.00	X40749		ORG
13	9NFR190	GRD09-153	290.75	292.13	1.38	X40750		ORG
14	9NFR190	GRD09-153	292.13	293.76	1.63	X40751		ORG
15	9NFR190	GRD09-153				X40752		BLK
16	9NFR190	GRD09-153	293.76	294.60	0.84	X40753		ORG
17	9NFR190	GRD09-153	294.60	296.34	1.74	X40754		ORG
18	9NFR190	GRD09-153	296.34	298.24	1.90	X40755		ORG
19	9NFR190	GRD09-153	298.24	300.24	2.00	X40756		ORG
20	9NFR190	GRD09-153	300.24	301.75	1.51	X40757		ORG
21	9NFR190	GRD09-153	301.75	303.17	1.42	X40758		ORG
22	9NFR190	GRD09-153	303.17	305.14	1.97	X40759		OPD
23	9NFR190	GRD09-153	303.17	305.14	1.97	X40760	X40759	DUP
24	9NFR190	GRD09-153	305.14	306.26	1.12	X40761		ORG
25	9NFR190	GRD09-153	306.26	306.93	0.67	X40762		ORG
26	9NFR190	GRD09-153	306.93	307.85	0.92	X40763		ORG
27	9NFR190	GRD09-153	307.85	308.13	0.28	X40764		ORG
28	9NFR190	GRD09-153	308.13	308.51	0.38	X40765		ORG
29	9NFR190	GRD09-153	308.51	308.88	0.37	X40766		ORG
30	9NFR190	GRD09-153	308.88	310.10	1.22	X40767		ORG
31	9NFR190	GRD09-153				X40768	13	STD
32	9NFR190	GRD09-153	310.10	311.44	1.34	X40769		ORG
33	9NFR190	GRD09-153	311.44	313.43	1.99	X40770		ORG
34	9NFR190	GRD09-153	313.43	314.59	1.16	X40771		ORG
35	9NFR190	GRD09-153	314.59	316.01	1.42	X40772		ORG
36	9NFR190	GRD09-153	316.01	316.42	0.41	X40773		ORG
37	9NFR190	GRD09-153	316.42	317.94	1.52	X40774		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR191	GRD09-153	317.94	320.04	2.10	X40775		ORG
2	9NFR191	GRD09-153	320.04	321.85	1.81	X40776		ORG
3	9NFR191	GRD09-153	321.85	323.07	1.22	X40777		ORG
4	9NFR191	GRD09-153	323.07	325.17	2.10	X40778		ORG
5	9NFR191	GRD09-153	325.17	326.14	0.97	X40779		ORG
6	9NFR191	GRD09-153	326.14	327.57	1.43	X40780		ORG
7	9NFR191	GRD09-153	327.57	327.96	0.39	X40781		ORG
8	9NFR191	GRD09-153	327.96	328.33	0.37	X40782		OPD
9	9NFR191	GRD09-153	327.96	328.33	0.37	X40783	X40782	DUP
10	9NFR191	GRD09-153	328.33	328.80	0.47	X40784		ORG
11	9NFR191	GRD09-153	328.80	329.19	0.39	X40785		ORG
12	9NFR191	GRD09-153	329.19	331.70	2.51	X40786		ORG
13	9NFR191	GRD09-153	331.70	333.76	2.06	X40787		ORG
14	9NFR191	GRD09-153	333.76	335.47	1.71	X40788		ORG
15	9NFR191	GRD09-153	335.47	336.80	1.33	X40789		ORG
16	9NFR191	GRD09-153	336.80	337.25	0.45	X40790		ORG
17	9NFR191	GRD09-153	337.25	338.40	1.15	X40791		ORG
18	9NFR191	GRD09-153	338.40	340.20	1.80	X40792		ORG
19	9NFR191	GRD09-153	340.20	342.20	2.00	X40793		ORG
20	9NFR191	GRD09-153	342.20	344.20	2.00	X40828		ORG
21	9NFR191	GRD09-153	344.20	345.95	1.75	X40794		ORG
22	9NFR191	GRD09-153	345.95	347.35	1.40	X40795		ORG
23	9NFR191	GRD09-153	347.35	348.50	1.15	X40796		ORG
24	9NFR191	GRD09-153	348.50	350.08	1.58	X40797		ORG
25	9NFR191	GRD09-153	350.08	351.46	1.38	X40798		ORG
26	9NFR191	GRD09-153	351.46	352.57	1.11	X40799		OCD
27	9NFR191	GRD09-153	351.46	352.57	1.11	X40800	X40799	DUC
28	9NFR191	GRD09-153	352.57	353.84	1.27	X40801		ORG
29	9NFR191	GRD09-153	353.84	355.53	1.69	X40802		ORG
30	9NFR191	GRD09-153	355.53	357.02	1.49	X40803		ORG
31	9NFR191	GRD09-153	357.02	357.81	0.79	X40804		ORG
32	9NFR191	GRD09-153			0.00	X40805		BLK
33	9NFR191	GRD09-153	357.81	358.54	0.73	X40806		ORG
34	9NFR191	GRD09-153	358.54	360.55	2.01	X40807		ORG
35	9NFR191	GRD09-153	360.55	362.47	1.92	X40808		ORG
36	9NFR191	GRD09-153	362.47	363.91	1.44	X40809		ORG
37	9NFR191	GRD09-153	363.91	365.48	1.57	X40810		ORG

No	Batch_No	Hole_ID	Interval From (m)	Interval To (m)	Length (m)	Sample Number	Orig_SampleID	QC_category
1	9NFR194	GRD09-153	365.48	366.55	1.07	X40811		ORG
2	9NFR194	GRD09-153	366.55	368.30	1.75	X40812		ORG
3	9NFR194	GRD09-153	368.30	370.10	1.80	X40813		OPD
4	9NFR194	GRD09-153	368.30	370.10	1.80	X40814	X40813	DUP
5	9NFR194	GRD09-153	370.10	372.04	1.94	X40815		ORG
6	9NFR194	GRD09-153	372.04	374.05	2.01	X40816		ORG
7	9NFR194	GRD09-153	374.05	376.06	2.01	X40817		ORG
8	9NFR194	GRD09-153	376.06	378.05	1.99	X40818		ORG
9	9NFR194	GRD09-153	378.05	380.05	2.00	X40819		ORG
10	9NFR194	GRD09-153	380.05	382.05	2.00	X40820		ORG
11	9NFR194	GRD09-153	382.05	384.27	2.22	X40821		ORG
12	9NFR194	GRD09-153				X40822	19	STD
13	9NFR194	GRD09-153	384.27	385.87	1.60	X40823		ORG
14	9NFR194	GRD09-153	385.87	387.10	1.23	X40824		ORG
15	9NFR194	GRD09-153	387.10	388.77	1.67	X40825		ORG
16	9NFR194	GRD09-153	388.77	390.87	2.10	X40826		ORG
17	9NFR194	GRD09-153	390.87	391.89	1.02	X40827	EOH	ORG

Appendix 3: Assay Certificates