

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-44**

Northing: 16363.5	Total Depth: 151.48m
Easting: 10055.7	Azimuth: 0°
Elevation: 1688.3	Dip: -90°

Geologist: B. Mercer
Logged Date: 9/17/2002

Survey Depth	Azimuth	Dip	Comments:
100 m	0 °	-90 °	No survey

GEOLOGICAL SURVEY BRANCH  
ACCORDING TO

27,083

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-44**

From (m)	To (m)	Rock Type	Comments
0	9.5	CASING	Casing - Entire hole not sampled 2002 since in Toodoggone and barren.
9.5	18.75	DACITE TOODOGGONE	Qtz-eye dacite. Very weak chl. Alt. Well milled pebbles. Sampled to core meterage marker due to poor recovery.
18.75	35.2	POLYLITHIC TUFF TOODOGGONE	C.g. conglomerate comprised of BFP and dacite clasts in a dark grey-green chloritic volcanic matrix. Logged as PLT for consistency of previous logs. Sampled to core meterage marker due to poor recovery.
35.2	56.25	DACITE TOODOGGONE	Dacitic crystal tuff with occasional lithic fragment. Crystals are predominantly feldspars with a few f.g. dark glassy Qtz. crystals.
56.25	63.3	POLYLITHIC TUFF TOODOGGONE	Light colored, bleached, sericitic and clay altered.
63.3	81.95	DACITE TOODOGGONE	From 60.00m to 81.95m is a thinly inter-bedded series of narrow, aphanitic dacite flows and thicker, oligomictic dacite tuff. Fragments are typically dark colored f.g. dacitic looking and epidote rich volc. fragments.
81.95	151.49	POLYLITHIC TUFF TOODOGGONE	To keep consistency with logging this is coded PLT for polyolithic tuff. In actual fact it is more conglomeratic. In addition to siliceous clast of various Toodogone Fm. lithologies it commonly includes abundant clasts of BFP typical of the top of the Takla Fm. Hence it must have formed by erosional processes rather than pyroclastic processes. This is supported by the sub-rounded outline of many of the clasts and very local alteration such as silicification and epidotization entirely confined to individual clasts.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-44**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	9.5	<b>CASING</b>							
0.00	9.50					Casing - Entire hole not sampled 2002 since in Toodoggone and barren.	44	-2	-2
9.5	18.75	<b>DACITE TOODOGGONE</b>							
9.50	12.80	Medium-grained grey homogeneous chloritic	0.0	0.0	0	9	116726	-2	-2
12.80	15.85		0.0	0.0	0	22	116727	-2	-2
15.85	18.75		0.0	0.0	0	19	116728	-2	-2
18.75	35.2	<b>POLYLITHIC TUFF TOODOGGONE</b>							
18.75	21.95	Coarse-grained red grey heterogeneous chloritic	0.0	0.0	0	24 ZVN 20 15	116729	-2	-2
21.95	23.20		0.0	0.0	0	0 ZVN 20 5	116730	-2	-2
23.20	25.15	Coarse-grained white heterogeneous sericitic clay	0.0	0.0	0	2	116731	-2	-2
25.15	27.15	Coarse-grained green-grey heterogeneous chloritic	0.0	0.0	0	24 ZVN 30 0	116732	-2	-2
27.15	29.15		0.0	0.0	0	31 ZVN 30 3	116733	-2	-2
29.15	31.15		0.0	0.0	0	18 ZVN 30 3	116734	-2	-2
31.15	33.20	Coarse-grained dark grey heterogeneous chloritic	0.0	0.0	0	0 ZVN 30 0	116735	-2	-2
33.20	35.20	Coarse-grained white heterogeneous sericitic clay	0.0	0.0	0	0 ZVN 30 2	116736	-2	-2
35.2	56.25	<b>DACITE TOODOGGONE</b>							
35.20	36.20	Medium-grained green-grey chloritic	0.0	0.0	0	34 ZVN 30 2	116737	-2	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
0	9.5	<b>CASING</b>								
0.00	9.50					Casing / Overburden	44	-2	-2	
9.5	18.75	<b>DACITE TOODOGGONE</b>								
9.50	12.80	Medium-grained grey homogeneous chloritic	0.0	0.0	0	9	Qtz-eye dacite. Very weak chl. Alt. Well milled pebbles. Sampled to core meterage marker due to poor recovery.	116726	0	0
12.80	15.85		0.0	0.0	0	22	As above.	116727	0	0
15.85	18.75		0.0	0.0	0	19		116728	0	0
18.75	35.2	<b>POLYLITHIC TUFF TOODOGGONE</b>								
18.75	21.95	Coarse-grained red grey heterogeneous chloritic	0.0	0.0	0	24 ZVN	20 15 C.g. conglomerate comprised of BFP and dacite clasts in a dark grey-green chloritic volcanic matrix. Logged as PLT for consistency of previous logs. Sampled to core meterage marker due to poor recovery.	116729	0	0
21.95	23.20		0.0	0.0	0	0 ZVN	20 5 Zeolite veins from here to E.O.H. are pink laumnotite.	116730	0	0
23.20	25.15	Coarse-grained white heterogeneous sericitic clay	0.0	0.0	0	2	White-cream colored, bleached looking and highly ser. / cly. Altered matrix supported conglomerate.	116731	0	0
25.15	27.15	Coarse-grained green-grey heterogeneous chloritic	0.0	0.0	0	24 ZVN	30 0 V.c.g. cobble conglomerate with occasional boulder. Most prominent clasts are white silicified rock (bleached rhyolite?).	116732	0	0
27.15	29.15		0.0	0.0	0	31 ZVN	30 3 As above.	116733	0	0
29.15	31.15		0.0	0.0	0	18 ZVN	30 3	116734	0	0
31.15	33.20	Coarse-grained dark grey heterogeneous chloritic	0.0	0.0	0	0 ZVN	30 0 Matrix supported conglomerate. Predominantly, relatively fine grained IVO with some dacitic looking clasts about 1-3cm in size.	116735	0	0
33.20	35.20	Coarse-grained white heterogeneous sericitic clay	0.0	0.0	0	0 ZVN	30 2 As for 116731.	116736	0	0
35.2	56.25	<b>DACITE TOODOGGONE</b>								
35.20	36.20	Medium-grained green-grey chloritic	0.0	0.0	0	34 ZVN	30 2 Dacitic crystal tuff with occasional lithic fragment. Crystals are predominantly feldspars with a few f.g. dark glassy qtz. crystals.	116737	0	0
36.20	38.20		0.0	0.0	0	22 ZVN	30 2	116738	0	0

**Hole Number: KN-02-44**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
38.20	40.20	Medium-grained green-grey chloritic	0.0	0.0	0	13 ZVN 30 2	116739	0	0	
40.20	42.20		0.0	0.0	0	19 ZVN 30 2 HQ ends.	116740	0	0	
42.20	42.67		0.0	0.0	0	16 ZVN 30 3	116741	0	0	
42.67	44.67		0.0	0.0	0	22 ZVN 30 3	116742	0	0	
44.67	46.55		0.0	0.0	0	22 ZVN 30 3	116743	0	0	
46.55	47.85	Coarse-grained red zeolite epidote	0.0	0.0	0	1	F.g. (.1cm) monolithic tuff comprised of volc. fragments in a v.f.g volc. matrix. Zeolite flooded with patchy epidote.	116744	0	0
47.85	49.85	Coarse-grained green chloritic sericitic	0.0	0.0	0	20 ZVN 40 7	116745	0	0	
49.85	51.85		0.0	0.0	0	34 ZVN 20 7	116746	0	0	
51.85	53.00	Coarse-grained orange-green zeolite sericitic	0.0	0.0	0	6 ZVN 25 5 Zeolite flooded in addition to ubiquitous zeolite veins.	116747	0	0	
53.00	55.00	Medium-grained grey chloritic epidote	0.0	0.0	0	42 ZVN 40 1	116748	0	0	
55.00	56.25		0.0	0.0	0	43 ZVN 40 0	116749	0	0	
56.25	63.3	<b>POLYLITHIC TUFF TOODOGGONE</b>								
56.25	58.00	Coarse-grained white sericitic clay	0.0	0.0	0	0	Light colored, bleached, sericitic and clay altered.	116750	0	0
58.00	60.00	Coarse-grained grey-green chloritic epidote	0.1	0.0	0	17 ZVN 40 1 Polyolithic tuff to probably reworked volcanic breccia. Fragments include IVO, dac., and sil'd volc.	116752	0	0	
60.00	62.00		0.0	0.0	0	18 ZVN 40 1	116753	0	0	
62.00	63.30		0.0	0.0	0	5 ZVN 40 1	116754	0	0	
63.3	81.95	<b>DACITE TOODOGGONE</b>								
63.30	65.00	Medium-grained green-grey heterogeneous chloritic epidote	0.0	0.0	0	3 ZVN 40 5 From 60.00m to 81.95m is a thinly inter-bedded series of narrow, aphanitic dacite flows and thicker, oligiomictic dacite tuff. Fragments are typically dark colored f.g. dacitic looking and epidote rich volc. fragments.	116755	0	0	
65.00	67.00		0.0	0.0	0	22 ZVN 40 10	116756	0	0	
67.00	69.00		0.0	0.0	0	8 ZVN 35 10	116757	0	0	
69.00	71.00		0.1	0.0	0	30 ZVN 35 10	116758	0	0	
71.00	73.00		0.0	0.0	0	13 ZVN 50 2	116759	0	0	
73.00	75.00		0.0	0.0	0	13 ZVN 50 2	116760	0	0	
75.00	77.00		0.0	0.0	0	10 ZVN 40 2	116761	0	0	

## Hole Number: KN-02-44

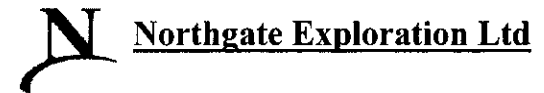
From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
77.00	79.00	Medium-grained green-grey heterogeneous chloritic epidote	0.0	0.0	0 12 ZVN 40 2		116762	0	0
79.00	81.00		0.0	0.0	0 21 ZVN 40 2		116763	0	0
81.00	81.95		0.0	0.0	0 20 ZVN 40 2		116764	0	0
81.95	151.49	<b>POLYLITHIC TUFF TOODOGGONE</b>							
81.95	84.00	Coarse-grained green-grey heterogeneous chloritic epidote	0.0	0.0	0 27 ZVN 40 2	To keep consistency with logging this is coded PLT for polyolithic tuff. In actual fact it is more conglomeratic. In addition to siliceous clast of various Toodogone Fm. lithologies it commonly includes abundant clasts of BFP typical of the top of the Takla Fm. Hence it must have formed by erosional processes rather than pyroclastic processes. This is supported by the sub-rounded outline of many of the clasts and very local alteration such as silicification and epidotization entirely confined to individual clasts.	116765	0	0
84.00	86.00		0.0	0.0	0 17 ZVN 40 2		116766	0	0
86.00	88.00		0.0	0.0	0 11 ZVN 40 2		116767	0	0
88.00	90.00		0.0	0.0	0 21 ZVN 40 2		116768	0	0
90.00	92.00		0.0	0.0	0 22 ZVN 40 2		116769	0	0
92.00	94.00		0.0	0.0	0 9 ZVN 40 2		116770	0	0
94.00	96.00		0.0	0.0	0 17 ZVN 40 2		116771	0	0
96.00	98.00		0.0	0.0	0 14 ZVN 40 2		116772	0	0
98.00	100.00		0.0	0.0	0 31 ZVN 40 2		116773	0	0
100.00	102.00		0.0	0.0	0 22 ZVN 40 2		116774	0	0
102.00	104.00		0.0	0.0	0 25 ZVN 40 2		116775	0	0
104.00	106.00		0.0	0.0	0 14 ZVN 35 1	Contains cobble of v.f.g. equigranular syenite.	116776	0	0
106.00	108.00		0.1	0.0	0 16 ZVN 35 1	Abundant disseminated f.g. py. in epidote cobble at end of sample. Evidence of mineralization prior to formation of the rock unit.	116778	0	0
108.00	110.00		0.0	0.0	0 13 ZVN 35 1		116779	0	0
110.00	112.00		0.0	0.0	0 19 FLT	From 110 to 110.30m is wk. gouge zone. Possible fault?	116780	0	0

## Hole Number: KN-02-44

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
112.00	114.00	Coarse-grained green-grey heterogeneous chloritic epidote	0.0 0.1	0	20 HEM 35 1	At 113.37m is a 2cm wide seam of massive hematite with a core of massive chalcopyrite. Probably secondary remobilization of iron oxide and copper from adjacent deposit.	116781	0	0
114.00	116.00		0.0 0.0	0	10 ZVN 30 2		116782	0	0
116.00	118.00		0.0 0.0	0	12 ZVN 30 2		116783	0	0
118.00	120.00		0.0 0.0	0	34 ZVN 30 2		116784	0	0
120.00	122.00		0.0 0.0	0	10 ZVN 30 2		116785	0	0
122.00	124.00		0.0 0.0	0	15 ZVN 30 2		116786	0	0
124.00	126.00		0.0 0.0	0	10 ZVN 65 2		116787	0	0
126.00	128.00		0.0 0.0	0	9 ZVN 65 2		116788	0	0
128.00	130.00		0.0 0.0	0	10 ZVN 70 2		116789	0	0
130.00	132.00		0.0 0.0	0	9 ZVN 30 5		116790	0	0
132.00	134.00		0.0 0.0	0	3 CVN 30 3		116791	0	0
134.00	136.00		0.0 0.0	0	17 ZCV 30 5	In addition to the more typical clasts, also contains two cobbles of pink rhyolite.	116792	0	0
136.00	138.00		0.0 0.0	0	10 ZCV 55 5		116793	0	0
138.00	140.00		0.0 0.0	0	21 ZCV 55 5		116794	0	0
140.00	142.00		0.0 0.0	0	12 ZCV 55 5		116795	0	0
142.00	144.00		0.0 0.0	0	19 ZCV 55 5		116796	0	0
144.00	146.00		0.0 0.0	0	17 CVN 55 2	Contains boulder of altered pink rhyolite.	116797	0	0
146.00	148.00		0.0 0.0	0	16 ZCV 55 2		116798	0	0
148.00	150.00		0.0 0.0	0	21 ZCV 55 2		116799	0	0
150.00	151.49		0.0 0.0	0	16 FLT	15cm of broken rock and minor gouge at end of hole. E.O.H.	116800	0	0

151.49 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-45**

Northing:	14227.7	Total Depth:	582.44m
Easting:	11094.1	Azimuth:	360 <sup>o</sup>
Elevation:	1805.8	Dip:	-60 <sup>o</sup>

Geologist:	J. Mazvihwa
Logged Date:	9/26/2002

Survey Depth	Azimuth	Dip	Comments:
125 m	3 <sup>o</sup>	-60 <sup>o</sup>	
217 m	13 <sup>o</sup>	-60 <sup>o</sup>	
308 m	13 <sup>o</sup>	-62 <sup>o</sup>	
400 m	19 <sup>o</sup>	-62 <sup>o</sup>	
491 m	23 <sup>o</sup>	-61 <sup>o</sup>	
583 m	27 <sup>o</sup>	-60 <sup>o</sup>	



# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-45**

From (m)	To (m)	Rock Type	Comments
0	3.05	CASING	10 feet of casing (3.05 metres)
3.05	53	BASALT FLOW	Local broken, rubbly portions. Medium green/black fine mafic portions in flow. Mainly fine grained. Chalcedonic/cherty qtz vein between ~ 4.95 to 5.10 metres. Several joint plane visible-lined by hematite and qtz. Angular fragments.
53	55	BASALT FLOW BRECCIA	Weak, patchy epidote alt'n. Brecciated texture visible @ ~ 53.66 to 54.20 metres. Qtz/zeo veining and qtz/calcite veining. Rare hematite lining joints. Minor broken zones. Mafic phenocrysts barely visible. Magnetite units.
55	82.55	BASALT FLOW	Qtz/plag phenocrysts visible locally. Slight brown colour due to very weak sericite +/- fine biotite alt'n. Qtz/calcite veining. Rare amygdules infilled with qtz @ ~ 57.78 metres. Mafic phenocrysts barely visible. Pyrite stringer @ ~ 56.77 metres. Massive magnetite units.
82.55	84.5	ANDESITE FLOW	Light gray/green, possibly intermediate, flow: andesitic, almost dacitic. Qtz/zeo veining, vuggy locally. Crackle breccia between 83.27 to 83.40 metres. Felsic phenocrysts visible locally-possibly plag and quartz. Medium gray between 83.40 to 84.50 metres. Possibly very weak sericite alt'n.
84.5	95.26	BASALT FLOW	Zeo/qtz veining between 85.00 to 85.04 metres. Pyrite stringer @ ~ 84.81 metres. Weak, patchy brown colour possibly weak sericite +/- fine biotite alt'n. Broken zones. Augite phenocrysts barely visible.
95.26	102.68	GRANODIORITE	Possibly intrusive >20% quartz, possibly granitoid. Secondary silicification. Plag, kfsp and quartz. Weak, patchy potassic alt'n. Minor disseminated pyrite.
102.68	104	BASALT FLOW	Light to medium gray/green. Slight brown colour possibly due to sericite +/- fine biotite alt'n. Calcite veining associated with qtz/zeo. Weak to moderate silicification. Intrusive texture-granitoid xenolith. Pyrite aggregates @ ~ 103.55 metres.
104	108.17	BASALT	Intrusive texture. Qtz/plag visible locally, >20 %, possibly granitoid xenoliths between 104.66 to 104.99 and 105.47 and 105.64 metres- silicified. Qtz/zeo veining.

Hole Number:

**KN-02-45**

From (m)	To (m)	Rock Type	Comments
108.17	114	BASALT FLOW	Slight increase in chlorite associated with weak brown colouration- possibly weak sericite as above. Protolith overprinted by alteration- possibly intrusive texture: qtz > 20%, granitoid as above. Less chloritic between 108.64 to 109.27 metres. Silicified, light gray/green. Qtz/zeo veining. Dark gray magnetite. Gradual contact between basalt flow and granitoid.
114	116	GRANODIORITE	Light gray, moderate to strong silicification. Intrusive texture, > 20% quartz, possibly granitoid. Chalcedonic and cherty qtz present locally. Qtz/zeo veining.
116	129.04	BASALT FLOW	Patchy weak to moderate silicification. Patchy chlorite. Qtz/zeo veining. Broken zones. Pyrite aggregates rare @ 177.10 metres.
129.04	130	ANDESITE FLOW	Light gray, soft (hardness ~ 3), weakly chloritic, possibly sericitized. weak to moderate epidote alt'n between 129.53 to 130.00 metres. Qtz/zeo veining associated with calcite locally. Intermediate flow.
130	145.68	BASALT FLOW	Slight brown colouration possibly due to weak sericite +/- fine biotite alt'n. Pyrite aggregates associated with qtz @ ~ 130.25 metres and stringers between 130.37 to 130.45 metres associated with zeolite. Fault zone between 131.58 to 131.74 metres. Increased qtz/calcite veining between 131.74 to 131.93 metres.
145.68	147.54	BASALT FLOW BRECCIA	Slight breccia texture between 146.50 to 147.54 metres. Chloritic, dark brown colour possibly due to patchy sericite +/- fine biotite alt'n. Qtz/chl veining lining joints locally. Rare pyrite aggregates.
147.54	158.13	BASALT FLOW	Same as above- pyrite aggregates @ ~ 148.87 metres.
158.13	160.06	FELSIC VOLCANIC	Felsic, light gray, volcanic. Mottled texture between 158.13 to 159.00 metres. Increased magnetite and pyrrhotite aggregates between 159.32 to 159.48 metres. Very slight, faint brown colour between 159.74 to 160.00 metres is possibly very weak sericite +/- fine biotite alt'n.
160.06	167.75	BASALT FLOW	Felsic, light gray between 160.20 to 161.00 metres with pyrrhotite aggregates and pyrite lining joints. darker gray from 161.00 metres, faint brown colour, possibly weak sericite +/- fine biotite alt'n. Pyrite and pyrrhotite aggregates @ ~ 160.87 metres. Finely disseminated sulphides in darker gray mafics.
167.75	171	BASALT FLOW BRECCIA	Finely disseminated pyrite and aggregates @ 168.62 metres. Felsic between 168.62 to 168.76 metres associated with qtz. weak, faint brown colouration possibly weak sericite +/- fine biotite alt'n.

Hole Number:

**KN-02-45**

From (m)	To (m)	Rock Type	Comments
171	176	BASALT FLOW	Rare kfsp vein @ ~ 172.08 metres. Smoky gray qtz vein between 172.66 to 172.93 metres. Banding @ ~ 60 degrees t.c.a. is approximately equidistant. Broken portions. Joint planes lined by qtz/chl veining.
176	182	FELSIC VOLCANIC FLOW	Zeolite veining @ ~ 176.03 metres. Weak to moderate potassic alt'n between 176.85 to 177.00 metres. Less mafic, light to medium gray, intermediate to felsic portions.
182	186	BASALT FLOW	Light to medium green andesitic flow between 182.00 to 182.83 metres. Dark to medium gray portion between 182.83 to 184.00 metres. Rare pyrite aggregates barely visible in flow. Slight brown/purple colouration, possibly weak sericite +/- fine biotite alt'n. Kfsp veining present locally, in darker altered flow: no zeolite veining in this unit.
186	190	ANDESITE FLOW	Andesitic flow cross-cut by zeolite veining. Light green/gray, dacitic in places. Broken portions. Chloritic with medium green chloritized portions.
190	192	BASALT FLOW	Medium to dark gray, mafic, basalt, phenocrysts barely visible. Qtz/zeo veining, local gypsum veining rare. Broken zones.
192	194	FELSIC VOLCANIC	Weak, patchy potassic alteration @ ~ 192.38 to 192.46 metres. Pyrite aggregates. Qtz/kfsp vein @ 0 degrees t.c.a. between 192.46 to 192.97 metres. Felsic, light gray @ ~ 193.20 metres and between 193.44 to 193.64 metres. Darker gray, mafic between 193.64 to 194.00 metres-possibly weak sericite alt'n.
194	202	BASALT FLOW BRECCIA	Milky white qtz vein between 194.06 to 194.12 metres enveloped with weak, patchy sericite alt'n and cross-cut by barren, late stage kfsp veining. Qtz veining and sericite alt'n @ ~ 194.24 and 194.29 metres. dark gray mafic basalt. Qtz/zeo veining lining joints. Fragmented locally-possibly flow breccia between 195.40 to 196.00 metres.
202	219.17	BASALT	Very weak epidote alteration in qtz/kfsp vein @ ~ 203.72 metres. Rare pyrite aggregates @ ~ 203.64 metres. Massive magnetite unit @ ~ 204.00 metres. Very slight brown colour, possibly weak sericite +/- fine biotite alt'n. Chlorite aggregates/units locally associated with disseminated pyrite +/- cpy. Weak epidote alt'n associated with qtz/zeo veining.
219.17	224.14	BASALT FLOW BRECCIA	Brecciated fragments. Smoky gray qtz veining @ ~ 70 degrees t.c.a. cross-cut by qtz/zeo veining, possibly late stage, @ ~ 0 degrees t.c.a. Qtz/zeo veining associated with magnetite aggregates @ 0 degrees t.c.a.
224.14	225.22	BASALT FLOW	Local increase in qtz/zeo veining. Broken.

Hole Number:

**KN-02-45**

From (m)	To (m)	Rock Type	Comments
225.22	227	BASALT FLOW BRECCIA	Local increase in qtz/zeo/kfsp veining between 225.58 to 225.96 metres associated with weak potassic alt'n. Zeo/kfsp vein between 226.09 to 226.14 metres. Fragments visible locally- flow breccia. Slight brown colour- possibly due to weak sericite +/- fine biotite alt'n.
227	375.65	BASALT FLOW	Pyrite/chalcopyrite stringers and aggregates present but rare. Zeo/qtz stock work veining between 227.32 to 227.49 metres. Patchy brown colour possibly due to weak sericite +/- fine biotite alt'n. Pyrite aggregates @ ~ 227.49 metres.
375.65	380	ANDESITE FLOW	Augite and biotite visible locally. Very weak sericite +/- fine biotite. Qtz veining associated with magnetite veining locally. Rare zeolite veining.
380	487.98	BASALT FLOW	Augite and biotite visible locally. Pyrite aggregates in association with qtz veining @ ~ 381.05 to 381.13 metres and 381.36 to 381.47 metres. Mag/qtz veining associated with epidote alt'n between 381.23 to 381.30 metres. Weak potassic alt'n with qtz veining and pyrite between 381.73 to 381.85 metres.
487.98	489.37	BASALT FLOW BRECCIA	Intrusive between 487.98 to 488.30 metres. Porphyritic, light gray matrix with qtz/plag phenocryst. Flow from 488.30 to 489.37 metres. Slight brown colour as above. Locally fragmented. Increased qtz/zeo discontinuous stringers. Rare pyrite aggregates.
489.37	538	BASALT FLOW	Brown colour as above. Qtz/zeo veining. Localized weak potassic alt'n. Broken zones.
538	550.29	QUARTZ MONZONITE	Kfsp; plag, mafic phenocrysts- possibly hornblende or amphibole in fine grained brown/pink matrix- appears to be weakly to moderately silicified. Qtz/zeo/calcite veining. Broken zones. Local finely disseminated pyrite (~539.80 metres). Pink staining might be due to potassic alteration. Unit is possibly qtz/monzo/syenite.
550.29	551.85	DIABASE POST-MINERAL DYKE	Mafic, possibly post mineralization dyke. Qtz/calcite phenocrysts, hardness between 3 and 5, fizz with HCl. Qtz/calcite stringers, locally discontinuous, in dyke. Rare zeolite veining.
551.85	555.89	QUARTZ MONZONITE FAULT ZONE	Flow breccia fault zone. Pink qtz monzo/syenite, phenocrysts barely visible appears to be fragmented/brecciated with gray clay gouge material in between fragments. Qtz/zeo/calcite veining locally discontinuous. Disseminated pyrite +/- cpy visible, rare.
555.89	557.66	ANDESITE FLOW	Mafic volcanic, medium green, chloritic, slightly silicified. Qtz/zeo/calcite veining randomly oriented, irregularly spaced. Locally associated with hematite veining. Late stage barren qtz veining cross-cutting all veining. Intermediate volcanic flow.
557.66	564.4	QUARTZ MONZONITE	Kfsp, plag, mafic phenocrysts visible in a light brown/pink, weakly silicified matrix with moderate potassic alt'n. Qtz/zeo/calcite veining randomly oriented and irregularly spaced. Broken zones.

Hole Number: **KN-02-45**

From (m)	To (m)	Rock Type	Comments
564.4	580	ANDESITE FLOW	Medium grained intermediate to mafic volcanic flow. Qtz/zeo/calcite veining randomly oriented. Very rare sulphide aggregates, possibly pyrite.
580	582.47	BASALT FLOW	Same as sample 113670 with augite phenocrysts visible locally. Flow possibly more mafic than intermediate. Broken locally. Qtz/zeo/calcite veining.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	3.05	<b>CASING</b>							
	0.00	3.05				10 feet of casing (3.05 metres)	45	-2	-2
3.05	53	<b>BASALT FLOW</b>							
	3.05	5.10 Fine-grained medium green massive chloritic silicic			0 QHVN 5 10	Local broken, rubbly portions. Medium green/black fine mafic portions in flow. Mainly fine grained. Chalcedonic/cherty qtz vein between ~ 4.95 to 5.10 metres. Several joint plane visible- lined by hematite and qtz. Angular fragments.	113288	0.008	0.006
	5.10	6.40			2 QHVN 10	Very weak, patchy epidote alt'n. Mafic, dark units in flow- black colouration, fine grained. Epidote alt'n associated with smoky gray qtz vein, slightly vuggy. Rubble/broken zones. Planes lined by qtz/hem veining. Angular fragments.	113289	0.01	0.007
	6.40	7.40			0 QHVN 10	Rubble/broken zones. Rubble oxidized, covered by hematite, qtz/hem veining. Weak epidote alt'n visible in some places. Angular fragments.	113290	0.005	-2
	7.40	9.45 Fine-medium-grained medium green massive chloritic silicic	1.0		0 QHVN 70 10	Pyrite aggregates. Rare amygdules infilled with black, mafic, non-magnetic, non-reactive to HCl mineral- possibly gypsum- between 7.80 to 7.96 metres. Appears brecciated in places. Light green/gray portions- about 3 hardness- possibly weakly sericitized. Weak, patchy epidote alt'n.	113291	0.021	0.022
	9.45	11.25			0 QHVN 30 10	Rubble zone. Rounded fragments between 9.45 to 9.60 metres. Hematite and qtz lining joint planes. Unit is slightly oxidized. Protolith not visible locally.	113292	0.01	0.007
	11.25	13.20 Fine-medium-grained green-orange massive chloritic silicic	1.0		0 QLV 50 10	Orange hematite- possibly limonite- lining joints, veining. Vuggy between 11.60 to 11.72 metres. Felsic phenocrysts, and fragments coated with limonite. Protolith overprinted- probably flow- basalt. Pyrite aggregates visible locally.	113293	0.03	0.017
	13.20	15.20 Fine-medium-grained green brown massive chloritic silicic			0 QHVN 90 10	Poor core recovery. Broken joint planes lined by brown/black hematite, oxidized. Flow- basalt. Dark black/gray phenocrysts barely visible @ ~ 14.00 metres- possibly a xenolith.	113294	0.004	0.007

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
15.20	17.20	Fine-medium-grained green brown massive chloritic silicic	0	QHVN	20 10	Poor core recovery. Slightly more competent but broken locally. Joint planes lined by brown/black hematite. Weak to moderately oxidized.	113295	0.002	-2
17.20	18.59		0	QHVN	20 10	Same as for 113295.	113296	0.005	0.007
18.59	20.40	Fine-medium-grained medium green massive chloritic silicic	0	QHVN	10 10	Poor core recovery. Broken core. Joint planes lined with brown/black hematite- weak to moderately oxidized. Mafic to intermediate flow. Darker mafic portions.	113297	0.006	0.008
20.40	21.43	Fine-medium-grained light green massive epidote silicic	0	QZVN	0 7	Moderately oxidized- friable. Light green, weakly to moderately sericitized and epidote altered. Weakly chloritic- possibly propylitic zone. Qtz/zeo veining, increasing in foot wall of sample between ~ 21.35 to 21.43 metres. Angular flow fragments appear to be cemented by pale green epidote and sericite alt'n. Clay material, appears to be porphyritic locally. Protolith overprinted by alteration.	113298	0.005	-2
21.43	23.35	Fine-medium-grained green brown massive chloritic silicic	0	QZVN	90 10	Brown colour possibly due to oxidation or weak sericite +/- fine biotite alt'n. Chlorite, minor vuggy dissolution features. Qtz/zeo vein, increased zeolite veining between 22.00 to 22.10 metres. Darker mafic portions.	113299	0.014	0.009
23.35	25.30		2	QHVN	80 7	Brown colour as above. Qtz/hematite veining from 23.35 to 23.54 metres. Very weak, patchy epidote alt'n. Darker mafic portions.	113300	0.017	0.015
25.30	26.79		1	QHVN	5 5	Broken zones. Joints lined with brown/black hematite veining. Patchy, weak to moderate epidote alt'n between 26.21 to 26.79 metres. Chloritic. Felsic and mafic.	113301	0.009	0.007
26.79	27.74		2	QHVN	80 15	Broken portions- competent between 26.79 to 27.22 metres, and crackle brecciated. Zeolite veining @ ~ 27.70 metres.	113302	0.009	-2
27.74	29.46	Fine-medium-grained green brown massive epidote sericitic	1	ZQHV	70 10	Weak to moderate epidote alt'n. Qtz/zeo veining, randomly oriented. Hematite lining joints. Possibly weak sericite alt'n.	113303	0.009	0.01
29.46	30.52	Fine-medium-grained medium green massive chloritic silicic	7	QZVN	50 15	Qtz/zeo stringers, discontinuous locally. Massive, weak, patchy epidote alt'n. Porphyritic texture in places. Qtz/zeo veining between 30.23 and 30.35 metres. Epidote alt'n. Darker mafic portions.	113304	0.006	0.007
30.52	32.31	Fine-medium-grained light green massive epidote silicic	0	QZVN	80 15	Moderate epidote alt'n associated with sericite and chlorite alt'n. Qtz/zeolite veining. Chalcedony/chert vein between 31.87 to 32.31 metres.	113305	0.03	0.014

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
32.31	33.83	Fine-medium-grained green brown massive chloritic silicic		0	ZQHV 0 10	Brown colour possibly due to oxidization or very weak sericite +/- fine biotite alt'n. Cherty/chalcedonic qtz rich portions- possibly veining but not clearly defined. Broken. Joint planes lined with qtz/zeo/hem.	113307	0.025	0.014
33.83	35.26			0	ZQHV 50 10	Very slight brown colour- oxidization, weak to moderate. Qtz/zeo hem veining, lining joint planes. Minor vuggy portions. Broken zones.	113308	0.013	0.005
35.26	36.80			0	ZQHV 0 10	Faint brown colour due to oxidization, but mainly green and chloritic. Vuggy, oxidized qtz/hem vein associated with pyrite aggregates @ 35.50 metres @ 0 degrees t.c.a. Porphyritic portions. Qtz/zeolite veining, locally associated with calcite @ 36.47 metres. Broken portions.	113309	0.036	0.031
36.80	38.30			0	ZQHV 20 15	Local increase in qtz/zeo/calcite veining. Chloritic portions. Light green, possibly weak epidote alt'n, between 37.94 to 38.20 metres. Weak, patchy brown colour due to oxidization or sericite +/- fine biotite alt'n. Porphyritic portions locally.	113310	0.014	0.009
38.30	39.93			0	QZVN 70 10	Chloritic broken portions. Qtz/zeo veining as discontinuous local stringers. Slight/faint brown colour possibly due to oxidization or weak sericite +/- fine biotite alt'n.	113311	0.002	0.005
39.93	41.45		2.0	0	ZQHV 90 15	Kfsp vein and alt'n between 40.22 to 40.29 metres. Chloritic, rare pyrite aggregates/veining bound by pink potassic alt'n @ ~ 40.40 metres. Qtz/specular hematite/calcite veining between 40.70 to 40.82 metres associated with pyrite aggregates- also present in flow @ 41.02 metres.	113312	0.01	0.024
41.45	43.06		3.0	0	ZQHV 20 20	Qtz/calcite vein @ ~ 41.64 to 41.67 metres associated with rare specular hematite and pyrite aggregates. Joint planes lined by hematite and qtz veining. Slight brown colour possibly due to weak oxidization or weak sericite +/- fine biotite alt'n . Chalcedonic, cherty vein between 42.52 to 43.06 metres associated with pyrite aggregates between 42.66 to 42.71 metres. Specular hematite vein between 42.73 to 42.83 metres and between 42.98 to 43.04 metres.	113313	0.031	0.023



## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
43.06	44.50	Fine-medium-grained green brown massive chloritic silicic	1.0	0	ZQHV 70 15	Moderately to strongly oxidized between 43.13 to 43.46 metres associated with specular hematite, vuggy in places. Specular hematite/qtz veining associated with rare pyrite aggregates @ ~ 43.77 metres. Patchy brown colour as above.	113314	0.099	0.016
44.50	45.50			0	QZVN 70 10	Slight pink staining between 44.65 to 45.00 metres, possibly kfsp alteration. Slight, faint brown colour as above. Qtz/zeo lining joint planes.	113315	0.013	0.039
45.50	47.50	Fine-medium-grained dark grey massive chloritic silicic		0	QZVN 80 5	Dark green, fine to medium grained, porphyritic texture, smoky gray quartz, phenocrysts barely visible in dark gray/black matrix.	113316	0.003	0.016
47.50	49.07			0	QZVN 70 7	Qtz and mafic phenocrysts barely visible in dark gray/black matrix. Qtz/zeo veining. Broken portions.	113317	0.003	0.009
49.07	51.00			0	QZVN 60 10	Slight brown colouration possibly due to weak sericite +/- fine biotite alt'n. Mafic phenocrysts barely visible as above- possibly augite phenocrysts. Qtz/zeolite veining locally associated with minor calcite. Brown, vitreous-lustred stringer @ 50.58 metres.	113318	0.003	-2
51.00	53.00		2.0	1	0 QZVN 10 5	Mafic phenocryst- possibly augite- barely visible in gray/black matrix. Pyrite aggregates @ ~ 52.47 metres associated with magnetite aggregates. Pyrite stringers @ ~ 52.20 metres. Rare hematite lining joint planes. Magnetite vein associated with smoky gray quartz vein.	113319	0.006	-2
<div style="border: 1px solid black; display: inline-block; padding: 2px;">53</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">55</div> <b>BASALT FLOW BRECCIA</b>									
53.00	55.00	Fine-medium-grained dark grey massive chloritic silicic		2	26 ZQCV 0 60	Weak, patchy epidote alt'n. Brecciated texture visible @ ~ 53.66 to 54.20 metres. Qtz/zeo veining and qtz/calcite veining. Rare hematite lining joints. Minor broken zones. Mafic phenocrysts barely visible. Magnetite units.	113320	0.003	0.022
<div style="border: 1px solid black; display: inline-block; padding: 2px;">55</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">82.55</div> <b>BASALT FLOW</b>									
55.00	57.00	Fine-medium-grained dark grey massive chloritic silicic	1.0	1	38 ZQCV 70 5	Qtz/plag phenocrysts visible locally. Slight brown colour due to very weak sericite +/- fine biotite alt'n. Qtz/calcite veining. Rare amygdules infilled with qtz @ ~ 57.78 metres. Mafic phenocrysts barely visible. Pyrite stringer @ ~ 56.77 metres. Massive magnetite units.	113321	0.005	-2
57.00	59.00			1	28 ZQCV 0 7	Qtz/plag and mafic phenocrysts barely visible in dark gray/black matrix. Qtz/zeo veining. Massive magnetite units.	113322	0.003	0.005

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
59.00	61.00	Fine-medium-grained dark grey massive chloritic silicic	2	49	QZVN 90 2	Decreased veining. Phenocrysts as above. Massive magnetite units.	113323	0.003	0.008
61.00	63.00		1.0	2	38 QV 80 1	Minor pyrite aggregates associated with qtz/cal stringers @ ~ 62.21 metres. Mafic phenocrysts- augite- barely visible. Rare hematite veining.	113324	0.004	-2
63.00	65.00		2	49	ZQHV 80 5	Qtz/zeo veining. Hematite lining joints in places. Phenocrysts barely visible. Magnetite.	113325	0.003	0.015
65.00	67.00		2	53	ZQHV 10	Local increase in qtz/zeo veining between 65.39 to 65.57 metres and 66.54 to 66.75 metres. Light brown colour due to weak sericite +/- fine biotite alt'n. Magnetite.	113326	0.003	-2
67.00	69.00		1.0	2	36 ZQHV 70 5	Weak, patchy epidote and kfsp alt'n between 67.58 to 67.84 metres enveloped with slight brown colour, possibly weak sericite +/- fine biotite alt'n. Qtz/zeo/calcite veining and stringers, randomly oriented. Pyrite stringers. Rare hematite veining. Magnetite units.	113327	0.003	-2
69.00	71.00		1.0	2	30 QHVN 10 5	Pyrite stringers and aggregates rare. Mafic phenocrysts barely visible. Rare hematite lining joints. Magnetite units.	113328	0.001	0.008
71.00	72.94			14	QZCV 80 10	Rare qtz/zeo veining- local increases between 71.21 to 71.25 metres and 72.50 to 72.89 metres. Augite phenocrysts visible locally. Rare hematite lining joints. Rare pyrite aggregates. Magnetite units.	113329	0.002	0.006
72.94	75.00		1	24	QZCV 0 3	Massive magnetite. Mafic phenocrysts barely visible in a dark gray/black matrix. Qtz/zeo/calcite veining randomly oriented.	113330	0.002	0.006
75.00	77.00		1	27	QZVN 70 5	Increased qtz/zeo veining between 75.00 to 75.07 metres. Mafic phenocrysts as above. Brecciated texture visible locally. Local broken zones. Massive magnetite.	113331	0.003	-2
77.00	79.00		1	27	ZQHV 90 7	Increased qtz/zeo veining between 77.79 to 77.95 metres. Qtz/zeo veining and hematite @ ~ 78.75 metres. Slight brown colour due to patchy, weak sericite +/- fine biotite alt'n. Brecciated. Mafic phenocrysts barely visible- probably augite- in a dark gray/black matrix. Massive magnetite.	113333	0.002	0.008
79.00	81.00		1	26	ZQHCV 60 7	Patchy, weak brown colour possibly due to weak sericite +/- fine biotite alt'n between 79.30 to 79.40 metres. Qtz/zeo/calcite veining between 79.40 to 79.46 metres. Smoky gray qtz between 79.88 to 79.96 metres. Zeolite veining @ ~ 80.02 and 80.48 metres. Locally vuggy. Massive magnetite.	113334	0.003	-2

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
81.00	82.55	Fine-medium-grained dark grey massive chloritic silicic		16	QZVN 80 7	Qtz/zeo veining between 80.60 to 80.78 metres. Vuggy dissolution features with zeolite crystals. Very slight, patchy brown colouration due to weak sericite +/- fine biotite alt'n.	113335	0.002	-2
82.55		84.5		<b>ANDESITE FLOW</b>					
82.55	84.50	Fine-medium-grained light grey massive sericitic silicic		1	QZVN 70 10	Light gray/green, possibly intermediate, flow: andesitic, almost dacitic. Qtz/zeo veining, vuggy locally. Crackle breccia between 83.27 to 83.40 metres. Felsic phenocrysts visible locally- possibly plagioclase and quartz. Medium gray between 83.40 to 84.50 metres. Possibly very weak sericite alt'n.	113336	0.003	-2
84.5		95.26		<b>BASALT FLOW</b>					
84.50	86.50	Fine-medium-grained dark green massive chloritic silicic	1.0	2	QZVN 60 7	Zeolite veining between 85.00 to 85.04 metres. Pyrite stringer @ ~ 84.81 metres. Weak, patchy brown colour possibly weak sericite +/- fine biotite alt'n. Broken zones. Augite phenocrysts barely visible.	113337	0.004	0.031
86.50	88.00		1.0	1	QZVN 80 5	Pyrite aggregates @ ~ 87.92 metres. Slight brown colour as above. Weak kfs, potassic alt'n, @ ~ 88.00 metres. Augite phenocrysts visible in a dark gray/green matrix.	113338	0.01	0.012
88.00	90.00		2.0	0	QZVN 80 5	Qtz/zeolite veining. Augite phenocrysts visible in dark green matrix. Pyrite aggregates associated with zeolite veining @ ~ 89.40 metres associated with weak potassic alt'n. Pyrite stringer @ ~ 89.60 metres.	113339	0.008	0.006
90.00	91.67			2	QZVN 0 7	Dark green mafic flow, augite phenocrysts visible. Potassic altered portion from 90.93 to 91.67 metres with intrusive texture and associated with quartz/zeolite veining.	113340	0.012	0.011
91.67	93.00			0	QZVN 70 5	Very weak brown colour possibly due to weak sericite +/- fine biotite alt'n. Dark gray, patchy portions and slightly brecciated texture.	113341	0.003	0.007
93.00	93.72		1	4	QKVN 60 5	Kfs vein with potassic envelope between 93.30 to 93.44 metres. Slight brown colour possibly due to sericite +/- fine biotite alt'n. Magnetite stringers.	113342	0.001	-2
93.72	95.26			17	QZVN 20 5	Zeolite veining associated with minor quartz and calcite. Augite phenocrysts barely visible.	113343	0.001	-2
95.26		102.68		<b>GRANODIORITE</b>					

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
95.26	96.66	Fine-coarse grained medium grey massive silicic chloritic		10	QZVN 70 7	Possibly intrusive >20% quartz, possibly granitoid. Secondary silicification. Plag, kfsp and quartz. Weak, patchy potassic alt'n. Minor disseminated pyrite.	113344	0.002	0.009
96.66	98.00			1	QZVN 50 7	Kfsp alt'n at ~ 97.00 metres. Intrusive texture. Dark green chloritic portions.	113345	0.002	-2
98.00	99.18			2	QZVN 70 10	Patchy, weak potassic alt'n. Intrusive texture. Increased zeolite veining between 98.86 to 98.98 metres- vuggy. Intrusive texture. Patchy, weak potassic alt'n. Fine to medium grain size.	113346	0.002	-2
99.18	101.18			3	QZVN 3 5	Very weak, patchy potassic alt'n, fine to medium grain size as above. Qtz/zeo veining.	113347	0.001	-2
101.18	102.68	Fine-medium-grained dark grey massive silicic chloritic	0.5	0	QZVN 70 7	Weak, patchy brown colour possibly due to sericite +/- fine biotite alt'n. Minor pyrite aggregates associated with Qtz/zeo veining. weak potassic alt'n between 101.20 to 101.32 metres. Gradual contact between flow and granitoid. Intrusive texture visible locally. Augite phenocrysts barely visible.	113348	0.003	-2
102.68	104	<b>BASALT FLOW</b>							
102.68	104.00	Fine-medium-grained green-grey massive chloritic silicic	0.5	3	QZCV 70 7	Light to medium gray/green. Slight brown colour possibly due to sericite +/- fine biotite alt'n. Calcite veining associated with Qtz/zeo. Weak to moderate silicification. Intrusive texture- granitoid xenolith. Pyrite aggregates @ ~ 103.55 metres.	113349	0.003	-2
104	108.17	<b>BASALT</b>							
104.00	105.85	Fine-coarse grained medium grey massive silicic chloritic		1	QZVN 90 7	Intrusive texture. Qtz/plag visible locally, >20 %, possibly granitoid xenoliths between 104.66 to 104.99 and 105.47 and 105.64 metres- silicified. Qtz/zeo veining.	113350	0.001	-2
105.85	107.00	Fine-medium-grained orange grey massive silicic		1	QZVN 70 5	Moderately to strongly silicified with weak potassic alt'n. Qtz/zeo veining. Intrusive texture between 106.45 to 106.74 metres- possibly a granitoid xenolith. Qtz content > 20%. Chloritic between 105.65 to 105.85 metres.	113351	0.002	-2
107.00	108.17	Fine-medium-grained grey brown massive silicic chloritic		0	QZVN 50 7	Moderately to strongly silicified. Faint brown colour possibly due to weak sericite +/- fine biotite alt'n. Qtz/zeo veining.	113352	0.002	-2
108.17	114	<b>BASALT FLOW</b>							

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
108.17	110.30	Fine-medium-grained medium grey massive chloritic silicic		0	QZVN 90 7	Slight increase in chlorite associated with weak brown colouration- possibly weak sericite as above. Protolith overprinted by alteration- possibly intrusive texture: qtz > 20%, granitoid as above. Less chloritic between 108.64 to 109.27 metres. Silicified, light gray/green. Qtz/zeo veining. Dark gray magnetite. Gradual contact between basalt flow and granitoid.	113353	0.002	-2
110.30	112.10	Fine-medium-grained medium green massive chloritic silicic	2.0	17	QHCVN 20 10	Medium to dark green chloritic flow. Specular hematite veining between 111.45 to 111.57 metres bound by qtz/calcite veining and associated with pyrite aggregates.	113354	0.01	0.009
112.10	114.00	Fine-medium-grained medium grey massive chloritic silicic	2.0	0	QCVN 60 5	Dark gray and purple portions. Portions with moderate to strong silicification. Dark green/black mafic portions. pyrite aggregates associated with qtz veining and in flow. Possibly associated with rare chalcopyrite and calcite in veining.	113355	0.011	0.011
114	116	<b>GRANODIORITE</b>							
114.00	116.00	Fine-coarse grained medium grey massive silicic		0	QZVN 60 5	Light gray, moderate to strong silicification. Intrusive texture, > 20% quartz, possibly granitoid. Chalcedonic and cherty qtz present locally. Qtz/zeo veining.	113356	0.002	-2
116	129.04	<b>BASALT FLOW</b>							
116.00	118.00	Fine-medium-grained medium green massive chloritic silicic	1.0	0	QZVN 90 7	Patchy weak to moderate silicification. Patchy chlorite. Qtz/zeo veining. Broken zones. Pyrite aggregates rare @ 177.10 metres.	113357	0.001	-2
118.00	120.00	Fine-medium-grained dark grey massive chloritic silicic		0	QZVN 70 5	Dark gray from 118.54 to 120.00 metres. Weak, patchy potassic alt'n with chloritic portions. Mottled texture in portions. Broken portions. Qtz/zeo veining.	113359	0.003	-2
120.00	122.00			0	QZVN 90 7	Brown colour possibly due to weak sericite +/- fine biotite alt'n between 120.50 to 122.00 metres. Qtz/zeo veining randomly oriented.	113360	0.003	-2
122.00	124.05	Fine-medium-grained medium grey massive silicic chloritic	0.5	0	QZVN 0 7	Granitoid, intrusive texture visible in places. Medium to dark gray flow- possibly basalt. Mafic phenocrysts visible locally. Pyrite aggregates @ ~ 122.22 metres. Chloritic portions, medium green colour.	113361	-2	-2
124.05	126.00			0	QZVN 70 7	Same as above. Chloritic portions between 124.33 to 124.70 metres, dark to medium green. Mottled felsic portion between 124.79 to 125.41 metres.	113362	0.001	0.005

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
126.00	128.00	Fine-medium-grained light grey massive silicic chloritic	2.0	0	QZVN 60 7	Brown colouration due to weak sericite +/- fine biotite alt'n between 126.78 to 126.95 metres associated with rare disseminated pyrite and aggregates. Broken portions.	113363	0.01	0.005
128.00	129.04	Fine-medium-grained green brown massive chloritic sericitic	2.0	8	QZCV 80 10	Pyrite aggregates in flow also associated with qtz/zeo +/- calcite veining between 128.32 to 128.74 metres. Patchy brown colour, possibly weak sericite +/- fine biotite alt'n.	113364	0.03	0.031
129.04	130	<b>ANDESITE FLOW</b>							
129.04	130.00	Fine-grained light grey massive chloritic sericitic		15	QZCV 70 10	Light gray, soft (hardness ~ 3), weakly chloritic, possibly sericitized. weak to moderate epidote alt'n between 129.53 to 130.00 metres. Qtz/zeo veining associated with calcite locally. Intermediate flow.	113365	0.003	0.007
130	145.68	<b>BASALT FLOW</b>							
130.00	132.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	8	QZCV 60 10	Slight brown colouration possibly due to weak sericite +/- fine biotite alt'n. Pyrite aggregates associated with qtz @ ~ 130.25 metres and stringers between 130.37 to 130.45 metres associated with zeolite. Fault zone between 131.58 to 131.74 metres. Increased qtz/calcite veining between 131.74 to 131.93 metres.	113366	0.027	0.031
132.00	134.00	Fine-medium-grained dark grey massive chloritic silicic		5	QCVN 30 7	Slight patchy brown colour, possibly weak sericite +/- fine biotite alt'n. Qtz/zeo stringers. Rare dark green/black chlorite stringers.	113367	0.004	-2
134.00	135.95			12	QVN 70 1	Weak, faint brown colour possibly due to sericite +/- fine biotite alt'n. Phenocrysts not visible in dark gray/green mafic matrix. Rare dark green/black chloritic stringers. Rare qtz veining. Massive magnetite @ ~ 139.67 metres- difficult to estimate percentage in dark mafic unit.	113368	0.008	-2
135.95	137.88	Fine-medium-grained green brown massive chloritic sericitic	2.0	0	QVN 60 10	Slight brown colour possibly due to weak sericite +/- fine biotite alt'n associated with rare pyrite aggregates @ ~ 136.27 metres. Qtz/calcite veining between 135.95 to 136.05 metres and 136.78 to 136.80 metres. Highly silicified from 136.80 to 136.88 metres with brown, patchy (probably weak sericite +/- fine biotite) alt'n associated with pyrite aggregates between 137.58 to 137.68 metres.	113369	0.017	0.01
137.88	139.96	Fine-medium-grained grey brown massive silicic sericitic		0	QVN 60 15	Moderate to strongly silicified, chalcedonic/cherty qtz veining in places. Mottled texture locally. Brown colour possibly due to sericite +/- fine biotite alt'n. Dar brown between 138.77 to 139.13 metres.	113370	0.003	-2

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
139.96	142.00	Fine-medium-grained brown grey massive silicic sericitic	1.0	0	QVN 50 7	Cherty/chalcedonic qtz veining light to medium brown colour due to weak sericite +/- fine biotite alt'n. Pyrite aggregate associated with smoky gray qtz vein @ ~ 141.48 to 141.69 metres.	113371	0.009	-2
142.00	144.00	Fine-medium-grained grey brown massive silicic sericitic	1.0	0.1	0 QVN 60 5	Pyrite and pyrrhotite @ ~ 142.07 metres. Pyrite +/- cpy aggregates and stringers between 142.27 to 142.50 metres. Cherty/chalcedonic portion between 142.44 to 142.69 and 143.23 to 144.00 metres- associated with weak brown colour, possibly sericite +/- fine biotite alt'n. Pyrite and pyrrhotite stringer @ ~ 143.63 metres. Chlorite lined joint @ 143.56 metres.	113372	0.011	0.006
144.00	145.68				0 QVN 70 15	Brown colour due to sericite +/- fine biotite alt'n. Increased smoky gray quartz veining.	113373	0.002	-2
145.68	147.54	<b>BASALT FLOW BRECCIA</b>							
145.68	147.54	Fine-medium-grained dark grey massive chloritic silicic	1.0	0.1	0 QVN 20 5	Slight breccia texture between 146.50 to 147.54 metres. Chloritic, dark brown colour possibly due to patchy sericite +/- fine biotite alt'n. Qtz/chl veining lining joints locally. Rare pyrite aggregates.	113374	0.002	-2
147.54	158.13	<b>BASALT FLOW</b>							
147.54	149.00	Fine-medium-grained dark grey massive chloritic silicic	1.0	0	QVN 30 5	Same as above- pyrite aggregates @ ~ 148.87 metres.	113375	0.003	-2
149.00	151.00	Fine-medium-grained brown grey massive sericitic chloritic	1.0	0	QVN 90 20	Weak, faint patchy brown colour possibly due to weak sericite +/- fine biotite alt'n. Pyrite aggregates in joint @ ~ 149.70 metres. Patchy qtz veining. Increased veining. Broken zones.	113376	0.01	0.007
151.00	153.00		3.0	1	QVN 70 15	Plathey pyrite units lining joints associated with qtz locally between 151.00 to 152.23 metres. Slight brown colour possibly due to sericite +/- fine biotite alt'n. Local intrusive texture between 151.77 to 151.89 metres. Pyrrhotite stringer @ ~ 152.02 metres, in qtz vein @ ~ 152.17 metres. Less brown colouration from 152.23 metres.	113377	0.011	-2
153.00	155.00		2.0	1	QVN 90 5	Weak, patchy brown colour possibly due to weak sericite +/- fine biotite alt'n. Pyrite/pyrrhotite aggregates @ ~ 153.75 metres. Local mottled texture. Pyrite aggregates between 154.47 to 154.55 metres. Increased felsic portions, more silicified and less brown between 154.08 to 154.65 metres. Pyrrhotite stringer @ ~ 154.67 metres.	113378	0.01	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
155.00	157.00	Fine-medium-grained light brown massive sericitic silicic	1.0	0	QVN 10 7	Weak to moderate sericite +/- fine biotite alt'n. Locally felsic, light gray colour between 155.00 to 155.53 metres. Qtz vein between 156.32 to 156.38 metres. Pyrite aggregates @ ~ 156.59 metres. Tan coloured aggregates with dark, black haloes between 156.60 to 156.65 metres- not resinous, adamantine lustre. Not sphalerite-possibly sericite.	113379	0.012	0.005
157.00	158.13		2.0	0	QVN 5 10	Finely disseminated pyrite in flow. Brown colouration possibly due to weak to moderate sericite +/- fine biotite alt'n. Chlorite veining.	113380	0.007	-2
158.13	160.06	<b>FELSIC VOLCANIC</b>							
158.13	160.06	Fine-medium-grained light grey massive silicic	2.0	0	QVN 70 5	Felsic, light gray, volcanic. Mottled texture between 158.13 to 159.00 metres. Increased magnetite and pyrrhotite aggregates between 159.32 to 159.48 metres. Very slight, faint brown colour between 159.74 to 160.00 metres is possibly very weak sericite +/- fine biotite alt'n.	113381	0.002	-2
160.06	167.75	<b>BASALT FLOW</b>							
160.06	162.00	Fine-medium-grained grey brown massive chloritic sericitic	2.0	2	QVN 70 5	Felsic, light gray between 160.20 to 161.00 metres with pyrrhotite aggregates and pyrite lining joints. darker gray from 161.00 metres, faint brown colour, possibly weak sericite +/- fine biotite alt'n. Pyrite and pyrrhotite aggregates @ ~ 160.87 metres. Finely disseminated sulphides in darker gray mafics.	113382	0.008	-2
162.00	164.00	Fine-medium-grained grey brown massive silicic sericitic	1.0	2	QVN 90 10	Slight brown colouration as above. Light gray portions-felsic between 162.90 to 164.00 metres, with slight brown colour. Pyrite and pyrrhotite aggregates. Qtz veining @ ~ 162.50, 163.45, and 163.60 metres.	113383	0.003	-2
164.00	166.00	Fine-medium-grained grey brown massive chloritic sericitic	2.0	0	QVN 80 5	Disseminated pyrite and aggregates @ ~ 165.10 to 165.26 metres. Slight brown colour as above.	113384	0.004	-2
166.00	167.75		2.0	0.1	1 QVN 90 3	Felsic, light gray between 167.40 to 167.59 metres. Gray/brown flow, brown colour possibly due to very weak sericite +/- fine biotite alt'n. Finely disseminated pyrite @ ~ 166.35 metres. Pyrite +/- cpy @ ~ 166.72 to 166.88 metres. Tan coloured material, mottled with dark brown/black stringers throughout @ ~ 166.88 metres.	113385	0.002	-2
167.75	171	<b>BASALT FLOW BRECCIA</b>							



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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
167.75	169.00	Fine-medium-grained dark grey massive chloritic silicic	1.0	0	QVN 80 3	Finely disseminated pyrite and aggregates @ 168.62 metres. Felsic between 168.62 to 168.76 metres associated with Qtz. weak, faint brown colouration possibly weak sericite +/- fine biotite alt'n.	113386	0.003	-2
169.00	171.00		1.0	0	QZVN 10 5	Weak, brecciated texture, fragments not visible in dark gray/black matrix. Pyrite lining joints, in places. Zeolite veining in light green, intermediate portion between minor felsic portions.	113387	0.002	-2
<div style="border: 1px solid black; display: inline-block; padding: 2px;">171</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">176</div> <b>BASALT FLOW</b>									
171.00	173.00	Fine-medium-grained dark grey massive chloritic silicic		1	1 QKVN 60 15	Rare kfsp vein @ ~ 172.08 metres. Smoky gray Qtz vein between 172.66 to 172.93 metres. Banding @ ~ 60 degrees t.c.a. is approximately equidistant. Broken portions. Joint planes lined by Qtz/chl veining.	113388	0.007	-2
173.00	174.48	Fine-grained medium grey massive silicic chloritic		4	QZVN 30 3	Qtz/zeo veining between 174.12 to 174.25 metres. Felsic, light gray, weak to moderately silicified.	113389	0.003	-2
174.48	176.00			0	QZKGV 40 15	Kfsp veining associated with smoky gray Qtz veining. Light to medium gray colour, possibly intermediate to felsic. Fine grained. Patchy dark gray mafic portions. Qtz/zeo veining. Gypsum veining present in places.	113390	0.003	-2
<div style="border: 1px solid black; display: inline-block; padding: 2px;">176</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">182</div> <b>FELSIC VOLCANIC FLOW</b>									
176.00	178.05	Fine-grained light grey massive silicic		3	QZKGV 90 10	Zeolite veining @ ~ 176.03 metres. Weak to moderate potassic alt'n between 176.85 to 177.00 metres. Less mafic, light to medium gray, intermediate to felsic portions.	113391	0.004	-2
178.05	180.00	Fine-medium-grained light grey massive silicic	1.0	0	QZKGV 70 10	Rare pyrite aggregates. Gypsum/zeo/kfsp veining. Lat stage gypsum cross-cutting all veining. Weak potassic alt'n @ ~ 179.22 metres. Generally felsic with minor dark gray intermediate portions.	113392	0.003	-2
180.00	182.00		1.0	19	QZKGV 0 7	Light to medium gray, generally felsic to intermediate. Slight shearing in places. Kfsp/Qtz/gypsum veining with zeolite veining. Dark green, chloritic, mafic portions between 181.79 to 181.98 metres associated with an increase in pyrite aggregates.	113393	0.003	-2
<div style="border: 1px solid black; display: inline-block; padding: 2px;">182</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">186</div> <b>BASALT FLOW</b>									

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
182.00	184.00	Fine-medium-grained brown grey massive sericitic chloritic		16	QZKGV 70 10	Light to medium green andesitic flow between 182.00 to 182.83 metres. Dark to medium gray portion between 182.83 to 184.00 metres. Rare pyrite aggregates barely visible in flow. Slight brown/purple colouration, possibly weak sericite +/- fine biotite alt'n. Kfsp veining present locally, in darker altered flow: no zeolite veining in this unit.	113394	0.001	-2
184.00	186.00			2	QZGV 90 5	Broken zone. Mafic phenocrysts visible in places, possibly augite. Andesitic flow from about 184.92 metres, cross-cut by zeolite veining.	113395	0.001	-2
186	190	<b>ANDESITE FLOW</b>							
186.00	188.00	Fine-medium-grained light grey massive chloritic silicic		0	QZVN 10 20	Andesitic flow cross-cut by zeolite veining. Light green/gray, dacitic in places. Broken portions. Chloritic with medium green chloritized portions.	113396	0.001	-2
188.00	190.00			2	84 QZVN 0 7	Andesitic, light green/gray flow from 188.00 to 189.00 metres. Dark gray/brown from about 189.00 metres, brown colour possibly due to weak sericite +/- fine biotite alt'n associated with massive magnetite @ ~ 189.25 metres.	113397	0.002	-2
190	192	<b>BASALT FLOW</b>							
190.00	192.00	Fine-medium-grained medium grey massive chloritic silicic		12	QZGV 0 7	Medium to dark gray, mafic, basalt, phenocrysts barely visible. Qtz/zeo veining, local gypsum veining rare. Broken zones.	113398	0.003	-2
192	194	<b>FELSIC VOLCANIC</b>							
192.00	194.00	Fine-medium-grained light grey massive silicic sericitic		3	QKZV 0 7	Weak, patchy potassic alteration @ ~ 192.38 to 192.46 metres. Pyrite aggregates. Qtz/kfsp vein @ 0 degrees t.c.a. between 192.46 to 192.97 metres. Felsic, light gray @ ~ 193.20 metres and between 193.44 to 193.64 metres. Darker gray, mafic between 193.64 to 194.00 metres- possibly weak sericite alt'n.	113399	0.007	-2
194	202	<b>BASALT FLOW BRECCIA</b>							
194.00	196.00	Fine-medium-grained dark grey massive chloritic silicic		28	QKZV 90 10	Milky white qtz vein between 194.06 to 194.12 metres enveloped with weak, patchy sericite alt'n and cross-cut by barren, late stage kfsp veining. Qtz veining and sericite alt'n @ ~ 194.24 and 194.29 metres. dark gray mafic basalt. Qtz/zeo veining lining joints. Fragmented locally- possibly flow breccia between 195.40 to 196.00 metres.	113400	0.001	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
196.00	198.00	Fine-medium-grained dark grey massive chloritic silicic		36	QKZV 5 10	Fragmented, flow breccia. Dark gray flow. Qtz/kfsp/zeo veining. Breccia consists of felsic fragments. Massive magnetite units.	113401	0.001	-2
198.00	200.00			1	27 QKZV 40 7	Rare magnetite aggregates in qtz/kfsp veining. Kfsp/zeo lining joints. Locally broken, brecciated.	113402	0.001	-2
200.00	202.00			1	69 QKZV 5 7	As above.	113403	0.001	-2
202	219.17	<b>BASALT</b>							
202.00	204.00	Fine-medium-grained dark grey massive chloritic sericitic	2.0 0.1	2	47 QZVN 5 10	Very weak epidote alteration in qtz/kfsp vein @ ~ 203.72 metres. Rare pyrite aggregates @ ~ 203.64 metres. Massive magnetite unit @ ~ 204.00 metres. Very slight brown colour, possibly weak sericite +/- fine biotite alt'n. Chlorite aggregates/units locally associated with disseminated pyrite +/- cpy. Weak epidote alt'n associated with qtz/zeo veining.	113404	0.006	0.005
204.00	206.00	Fine-grained dark grey massive chloritic sericitic	2.0 0.1	1	9 QVN 80 7	Fine grained, aphanitic locally. Flow is possibly basaltic, no augite phenocrysts visible. Very slight brown colour possibly due to weak sericite +/- fine biotite alt'n. Medium apple-green chloritic units in flow possibly due to alteration as seen in sample 113404. Pyrite and cpy aggregates and stringer associated with qtz stringers. Massive magnetite units.	113405	0.015	0.011
206.00	208.00		3.0 0.1	1	22 QVN 70 5	Slight increase in pyrite and cpy aggregates, disseminations and veining.	113406	0.016	0.009
208.00	210.00		3.0 0.1	1	16 QVN 0 5	Slight increase in brown colour due to weak sericite +/- fine biotite alt'n. Increased chloritic units- in stringers and spherical forms. Qtz/pyrite vein @ 0 degrees t.c.a. running along length of sample.	113407	0.013	0.027
210.00	212.00		2.0 0.1	1	23 QZVN 90 3	Magnetite aggregates associated with chloritic altered units. Slight increase in brown colouration possibly due to weak sericite +/- fine biotite alt'n. Rare zeolite veining @ ~ 211.10 metres.	113408	0.021	0.019
212.00	214.00		2.0 0.1	1	10 QZVN 30 5	Rare zeolite veining @ ~ 212.49 and 212.55 metres. Chloritic altered units. Brown sericite +/- fine biotite alt'n.	113409	0.015	0.014
214.00	216.00		1.0 0.1	1	36 QZVN 80 7	Zeolite/qtz veining. Chloritic altered units reduced locally. Local broken zones. Qtz stringers.	113411	0.007	0.006
216.00	218.00		1.0 0.1	1	18 QVN 0 10	Massive magnetite present locally. Patchy, weak sericite +/- fine biotite alt'n. Portions with less chloritic alt'n.	113412	0.008	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
218.00	219.17	Fine-grained dark grey massive chloritic sericitic	1.0	1	27 QVN 0 7	Less chloritic altered portions, qtz/py stringers. Massive magnetite units.	113413	0.004	-2
<b>219.17</b>	<b>224.14</b>	<b>BASALT FLOW BRECCIA</b>							
219.17	221.28	Fine-medium-grained dark grey massive chloritic sericitic		1	7 QZVN 5 15	Brecciated fragments. Smoky gray qtz veining @ ~ 70 degrees t.c.a. cross-cut by qtz/zeo veining, possibly late stage, @ ~ 0 degrees t.c.a. Qtz/zeo veining associated with magnetite aggregates @ 0 degrees t.c.a.	113414	0.004	-2
221.28	223.00				2 QKZV 20 10	Qtz/zeo veining @ ~ 221.35 metres, 90 degrees t.c.a., vuggy. Local increase in qtz/zeo veining. Fragmental, flow breccia, qtz and felsic fragments visible. Slight brown colour possibly weak sericite +/- fine biotite alt'n.	113415	0.002	-2
223.00	224.14				3 QKZV 90 5	Brecciated, qtz and felsic fragments visible. Slight brown colour possibly weak sericite +/- fine biotite alt'n.	113416	0.005	-2
<b>224.14</b>	<b>225.22</b>	<b>BASALT FLOW</b>							
224.14	225.22	Fine-medium-grained dark grey massive chloritic sericitic			4 QZVN 0 20	Local increase in qtz/zeo veining. Broken.	113417	0.004	-2
<b>225.22</b>	<b>227</b>	<b>BASALT FLOW BRECCIA</b>							
225.22	227.00	Fine-medium-grained dark grey massive chloritic sericitic			7 QKZV 20 7	Local increase in qtz/zeo/kfsp veining between 225.58 to 225.96 metres associated with weak potassic alt'n. Zeo/kfsp vein between 226.09 to 226.14 metres. Fragments visible locally- flow breccia. Slight brown colour- possibly due to weak sericite +/- fine biotite alt'n.	113418	0.003	-2
<b>227</b>	<b>375.65</b>	<b>BASALT FLOW</b>							
227.00	229.00	Fine-medium-grained dark grey massive chloritic sericitic	1.0		4 QKZV 50 7	Pyrite/chalcopyrite stringers and aggregates present but rare. Zeo/qtz stock work veining between 227.32 to 227.49 metres. Patchy brown colour possibly due to weak sericite +/- fine biotite alt'n. Pyrite aggregates @ ~ 227.49 metres.	113419	0.004	-2
229.00	231.00		1.0		1 QZVN 5 2	Massive; rare veining. pyrite aggregates @ ~ 229.69 metres. Weak, faint patchy brown colour possibly weak sericite +/- fine biotite alt'n.	113420	0.004	-2
231.00	232.67				4 QZVN 5 5	Slight, faint brown colour as above. Qtz/zeo veining locally increases @ ~ 231.95 metres.	113421	0.004	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
232.67	234.00	Fine-medium-grained dark grey massive chloritic sericitic			6 QZMOV 80 10	Local increase in qtz/zeo veining between 232.67 to 233.73 metres associated with broken zones. Rare moly aggregates in qtz vein @ 233.70 metres. Patchy brown colouration as above. Increased qtz veining between 233.70 to 233.84 metres associated with moderate sericite +/- fine biotite alt'n.	113422	0.011	0.006
234.00	236.00	Fine-medium-grained brown grey massive sericitic chloritic	1.0		1 QZVN 80 5	Increased brown colouration. Disseminated pyrite and aggregates.	113423	0.011	0.009
236.00	238.00		1.0	0.1	9 QZVN 90 7	Disseminated pyrite and aggregates locally associated with smoky gray qtz veins @ ~ 237.20 to 237.40 metres. Moderate sericite +/- fine biotite alt'n.	113424	0.015	0.009
238.00	240.00	Fine-medium-grained medium grey massive chloritic sericitic			15 QVN 60 5	Mafic flow with intermediate portions. Mottled portions of brown, possibly weak, patchy sericite +/- fine biotite alt'n. Qtz/zeo veining. Disseminated pyrite and aggregates @ ~ 239.35 metres.	113425	0.02	0.012
240.00	241.88	Fine-medium-grained dark grey massive chloritic sericitic			8 QZVN 80 5	Augite phenocrysts visible locally. Weak, faint, patchy brown colour possibly due to very weak sericite +/- fine biotite alt'n. Zeolite veining associated with broken zones.	113426	0.01	0.007
241.88	243.43		1.0		7 QZVN 30 20	Increased qtz/zeo veining between 241.88 to 242.34 metres. Patchy brown colour, possibly weak sericite +/- fine biotite alt'n. Smoky gray qtz vein and stringers @ 30 degrees t.c.a. between 242.90 to 243.45 metres. Pyrite aggregates associated with qtz veining. Milky white qtz vein associated with moly aggregates and gray, metallic, tabular crystals @ ~ 242.90 metres.	113427	0.01	0.006
243.43	244.50	Fine-grained dark grey massive chloritic sericitic	1.0		2 55 QZVN 20 3	Locally mottled texture, possibly amygdules infilled with felsic material. Rare qtz/zeo veining. Biotite platey flakes visible locally, possibly associated with weak sericite alt'n. Reduced veining. Massive magnetite.	113428	0.004	-2
244.50	246.00	Fine-medium-grained medium grey mottled chloritic sericitic			3 111 QZVN 80 20	Mottled texture from about 244.65 to 245.12 metres infilled with felsic material. Qtz/zeo veining. Patchy, weak brown colour, possibly weak sericite +/- fine biotite alt'n. Mottled texture between 245.49 to 245.77 metres infilled with mafic material and massive magnetite @ ~ 244.65 to 244.75 metres.	113429	0.011	0.008

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
246.00	248.00	Fine-medium-grained medium grey mottled chloritic sericitic	1.0 0.1	11	QVN 80 20	Finely disseminated pyrite and cpy associated with qtz locally. Qtz banding @ ~ 80 degrees t.c.a. equidistant (10 mm) between 247.24 to 247.44 metres and @ 40 degrees t.c.a. between 246.80 to 247.14 metres. Augite phenocrysts barely visible in between veining.	113430	0.012	0.005
248.00	250.00	Fine-medium-grained brown grey massive chloritic sericitic		29	QVN 80 15	Felsic veining between 249.25 to 249.62 metres. Augite phenocrysts visible locally. Brown, patchy, weak colour due to weak to moderate patchy sericite +/- fine biotite alt'n. Platey biotite cleavage faces visible locally.	113431	0.005	0.006
250.00	252.00	Fine-medium-grained dark grey massive chloritic sericitic	1.0 0.1	3	72 QVN 60 15	Pyrite aggregates +/- cpy @ ~ 250.74 metres. Pyrite stringers @ ~ 250.80 metres. Felsic/qtz veining @ ~ 40 degrees t.c.a. forming banding. Brown, patchy, weak sericite +/- fine biotite alt'n. Massive magnetite units.	113432	0.01	-2
252.00	254.00			2	46 QVN 70 15	Augite phenocrysts visible locally. Slight, faint brown colour as above. Qtz veining, banding. Massive magnetite.	113433	0.01	0.005
254.00	256.00		1.0 0.1	1	8 QVN 90 20	Pyrite and cpy aggregates associated with smoky gray qtz vein between 254.10 to 254.15 metres. Qtz veining/stringers @ 40 to 50 degrees t.c.a. Brown colour as above. Felsic, light gray between 255.50 to 255.80 metres. Massive magnetite units.	113434	0.023	0.011
256.00	258.00		0.5 0.1	1	37 QZVN 10 5	Rare pyrite aggregates associated with trace cpy barely visible in flow. Slight brown colour as above. Massive magnetite units.	113435	0.002	-2
258.00	259.03	Fine-medium-grained dark grey porphyritic chloritic sericitic		1	40 QZVN 0 5	Augite phenocrysts visible locally. Amygduloidal structures infilled with 2% qtz. Qtz/zeo veining. Massive magnetite.	113437	0.015	0.008
259.03	259.30		2.0 0.7	1	33 QZVN 0 7	Large cpy aggregates lining joint @ ~ 259.08 metres. Also associated with qtz veining. Augite phenocrysts.	113438	0.056	0.028
259.30	259.76		1.0 0.1	1	21 QZVN 90 5	Weak, patchy brown coloured portions, possibly weak sericite +/- fine biotite alt'n. Augite phenocrysts visible. Qtz/zeo veining.	113439	0.001	-2
259.76	260.58	Fine-medium-grained dark grey amygdular chloritic sericitic	1.0 0.1	1	29 QZVN 90 5	Dark gray, mafic basaltic flow, augite phenocrysts. Amygduloidal-like structures infilled with qtz. Qtz/zeo veining @ ~ 260.32 metres.	113440	0.001	-2

## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
260.58	261.50	Fine-medium-grained dark grey porphyritic chloritic sericitic	1.0	0.1	1 37 QZVN 60 10	Felsic flow between 260.86 to 261.09 metres associated with qtz/zeo veining. Augite phenocrysts. Weak, faint brown colour from 261.09 metres, possibly due to sericite +/- fine biotite alt'n. Felsic with qtz/zeo veining between 261.35 to 261.50 metres.	113441	0.002	-2
261.50	262.00		1.0	0.1	1 25 QZVN 70 5	Qtz/zeo stringers. Augite phenocrysts. Local broken zones.	113442	0.003	-2
262.00	264.00		1.0	0.1	1 2 QZVN 5 7	Augite phenocrysts present. Amygdule-like structures @ ~ 262.49, possibly altered augite phenocrysts. Qtz/zeo veining. Slight brown colour from 262.66 to 263.34 metres may be weak sericite alt'n.	113443	0.006	0.005
264.00	266.00		1.0	0.1	1 42 QZVN 80 5	Massive, no augite phenocrysts between 264.79 to 264.91 metres. Patchy brown colouration, possibly weak sericite +/- fine biotite alt'n. Amygdule-like structures infilled with 2 % qtz. Joint planes lined by rare hematite veining @ 264.91 metres. Felsic portion associated with increased qtz/zeo veining between 265.48 to 265.59 metres.	113444	-2	-2
266.00	268.00		1.0	0.1	1 29 QZVN 70 5	Local increase in qtz/zeo veining. Augite phenocrysts visible locally. Brown colouration as above.	113445	0.004	-2
268.00	270.00		0.5	0.1	1 27 QVN 70 3	Dark gray, mafic, light/mod sericite altered portions, possibly +/- fine biotite. Pyrite aggregates.	113446	-2	-2
270.00	272.00	Fine-medium-grained dark grey massive chloritic sericitic	0.5	0.1	1 14 QVN	Qtz veining @ 90 degrees t.c.a., banding between 270.00 to 270.30 metres. Slight brown colour as above. Smoky gray qtz between 271.75 to 271.96 metres associated with weak epidote alt'n.	113447	0.003	0.005
272.00	274.00		2.0	0.5	36 QZVN 80 3	Dark gray mafic flow, possibly basalt, no augite phenocrysts visible. Patchy, weak, brown colouration possibly weak sericite +/- fine biotite alt'n. Pyrite and cpy aggregates in flow. Weakly brecciated locally. Amygduloidal structures, infilled with 2 % qtz, appear to be sheared between 273.76 to 274.00 metres.	113448	0.001	-2
274.00	276.00		1.0	0.1	12 QVN 90 5	Mafic flow, no augite phenocrysts visible. Qtz/cal stringers between 275.03 to 275.20 metres. Pyrite and cpy aggregates concentrated @ ~ 275.67 metres. Qtz veining/banding @ 90 degrees t.c.a. equidistant: about 2-3 cm apart.	113449	0.002	-2

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
276.00	278.00	Fine-medium-grained dark grey massive chloritic sericitic	1.0	0.1	30 QVN 0 7	Augite phenocrysts barely visible in flow. Patchy, faint brown colour possibly due to sericite +/- fine biotite alt'n. Felsic flow between 276.51 to 276.60 metres in association with qtz/zeo veining to 276.75 metres.	113450	-2	-2
278.00	280.00	Fine-medium-grained brown grey massive sericitic chloritic	2.0	0.3	5 QZVN 70 5	Pyrite and cpy aggregates barely visible in places. Brown colouration as above. Qtz/zeo stringers.	113501	0.001	-2
280.00	281.81		1.0	0.1	10 QZVN 0 7	Patchy brown colour as above. Broken portions. Qtz/zeo veining, associated with felsic portions between 281.76 to 281.81 metres. Slight increase in veining. Chlorite stringers between 281.81 to 282.00 metres.	113502	0.009	0.008
281.81	284.00	Fine-medium-grained dark grey massive chloritic sericitic	0.5		5 QVN 70 3	Dark gray, mafic, basaltic flow. Smoky gray qtz vein between 283.23 to 283.39 metres. Augite phenocrysts visible locally. Very weak brown colour possibly due to weak sericite +/- fine biotite alt'n. Qtz veining @ ~ 283.60 metres.	113503	0.012	0.04
284.00	286.00	Fine-medium-grained medium grey amygdular chloritic silicic			16 QVN 80 5	Augite phenocryst visible locally in medium gray flow. Amygdules infilled with 2% qtz between 284.47 to 284.83 metres. Smoky gray qtz veining associated with chl and magnetite.	113504	-2	-2
286.00	288.00				1 QZVN 20 7	Amygdules between 287.28 to 287.64 metres infilled with 2% qtz. Medium gray mafic/intermediate flow. Patchy, weak brown colour as above. Qtz vein between 287.13 to 287.22 associated with moly (?) and tan, matt aggregates (?). Portions of increased qtz/zeo stringers.	113505	-2	-2
288.00	290.00				1 QZVN 90 10	As above, with amygdules between 288.33 to 288.56 metres infilled with 2% qtz. Qtz/zeo veining between 288.56 to 289.30 metres associated with broken portions. Brown colour as above.	113506	-2	-2
290.00	291.91	Fine-medium-grained dark grey mottled chloritic sericitic			4 QKZVN 70 15	Augite phenocrysts. Amygdules between 290.15 to 290.50 metres. Mottled texture- weak to moderate sericite +/- fine biotite alt'n, from 290.30 metres. Increase qtz/zeo stringers between 291.27 to 291.83 metres. Qtz/zeo/kfsp veining associated with crackle brecciated mafic flow.	113507	-2	-2
291.91	293.00	Fine-medium-grained medium brown mottled sericitic silicic			0 QVN 5 3	Light brown colour due to weak sericite +/- fine biotite alt'n in light/medium gray intermediate flow. Qtz vein between 292.02 to 292.13 metres.	113508	0.008	0.024



## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
293.00	295.00	Fine-medium-grained light brown porphyritic sericitic chloritic		0	QZVN 0 3	Patchy, weak brown colour possibly due to sericite +/- fine biotite alt'n. Augite phenocrysts. Qtz/zeo veining. Qtz vein between 294.42 to 295.00 metres.	113509	0.005	-2
295.00	297.00	Fine-medium-grained brown green mottled sericitic silicic		0	QZVN 80 7	Mottled weak to moderate sericite alt'n between 295.00 to 295.25 metres. Dark brown colour due to mod to strong sericite +/- fine biotite alt'n. Felsic between 295.55 to 295.25 metres. Pyrite +/- cpy aggregates in qtz/zeo veining between 296.38 to 296.96 metres cross-cut locally by barren late stage zeo veining.	113510	0.003	-2
297.00	299.00	Fine-medium-grained light green massive chloritic silicic	1.0	0.1	1 QHZV 60 5	Medium to light green mafic/intermediate flow. Local increase in qtz/zeo/calcite veining randomly oriented. Disseminated pyrite +/- cpy and aggregates.	113511	0.002	-2
299.00	301.00	Fine-medium-grained brown grey massive chloritic sericitic	0.5		12 QVN 3 15	Increased smoky gray qtz veining. Dark gray, mafic flow. Patchy brown colouration possibly due to weak sericite +/- fine biotite alt'n. Biotite shows flaky, platy cleavage.	113513	0.001	-2
301.00	303.00		2.0	0.1	1 QVN 60 15	Pyrite aggregates associated with qtz/kfsp veining @ ~ 301.50 to 301.56 metres. Brown colouration as above. White, peppered specks @ ~ 302.71 metres.	113514	0.001	-2
303.00	305.00		1.0	0.1	0 QZVN 60 5	Patchy brown due to weak sericite +/- fine biotite alt'n. Pyrite and cpy aggregates. Qtz/zeo veining @ ~ 304.37 metres. Mottled locally.	113515	0.004	-2
305.00	306.70		1.0	0.1	0 QVN 5 10	Pyrite and cpy stringers and aggregates. Pale/faint brown colour due to weak sericite +/- fine biotite alt'n. Increased qtz/zeo veining between 306.20 to 306.70 metres.	113516	0.012	0.011
306.70	308.00	Fine-medium-grained brown grey massive sericitic chloritic	3.0	0.5	0 QZVN 50 10	Local increase in pyrite and cpy aggregates between 306.70 to 307.16 metres. Slight brown colour as above. Qtz/kfsp veining @ 307.09 metres, and between 307.16 to 307.19 metres. Mottled between 307.18 to 307.48 metres. Increased biotite content, flaky, platy faces visible.	113517	0.03	0.025
308.00	310.00	Fine-medium-grained brown grey mottled sericitic chloritic	2.0	0.1	2 QVN 0 7	Patchy brown colour due to weak to moderate sericite +/- fine biotite alt'n. Biotite present as above. Felsic portions between 308.57 to 308.73 metres. Locally mottled texture.	113518	0.031	0.024
310.00	312.00		1.0		1 QVN 60 7	Patchy brown colour as above. Qtz veining @ 311.70 metres. Chlorite associated with magnetite and flaky biotite.	113519	0.003	-2
312.00	314.00	Fine-medium-grained brown grey massive sericitic chloritic	0.5		3 QVN 70 5	Chloritic unit associated with magnetite aggregates. Patchy brown colour as above.	113520	0.004	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
314.00	316.00	Fine-medium-grained dark grey massive chloritic sericitic	1.0	0.1	1 QKVN 60 7	Pyrite and cpy aggregates associated with biotite. Brown colour as above. Mottled texture between 314.95 to 315.69 metres. Kfsp/qtz veining. Chloritic green portions. Felsic portions.	113521	0.005	-2
316.00	317.79	Fine-medium-grained medium grey massive chloritic silicic			9 QZVN 70 10	Patchy brown colouration as above. White felsic specks in altered portion between 316.48 to 316.63 metres. Qtz/zeo veining from 316.63 metres. Weak potassic alt'n. Chloritic portions. Qtz veining between 317.30 to 317.46 metres. Intermediate mafic flow. Flaky biotite associated with chl veins.	113522	0.002	-2
317.79	319.00	Fine-medium-grained grey brown massive chloritic sericitic	2.0	0.1	0 QZVN 60 15	Local increase in qtz veining associated with weak epidote and potassic alt'n between 317.23 to 317.29 metres. Mottled between 317.38 to 317.52 metres. Smoky gray qtz vein from 317.74 to 317.43 metres associated with pyrite aggregates. Patchy brown colour.	113523	0.006	0.007
319.00	321.00		3.0	0.1	5 QZVN 50 10	Patchy brown colour as above. Pyrite +/- cpy lining joints @ ~ 320.24 metres. Felsic between 320.42 to 320.63 metres associated with qtz veining- vuggy. Local increase in qtz veining cut by barren late stage zeolite veining @ 319.92, 320.00 and 320.05 metres.	113524	0.003	-2
321.00	322.93	Fine-medium-grained medium grey massive chloritic sericitic	2.0	0.1	9 QZVN 0 3	Mafic flow with intermediate to felsic light gray portions. Augite phenocrysts visible locally. Qtz veining associated with pyrite and cpy aggregates @ ~ 322.35 metres. Pyrite +/- cpy aggregates @ 322.70 metres.	113525	0.018	-2
322.93	325.00	Fine-medium-grained brown grey massive chloritic sericitic	2.0	0.1	12 QVN 5 5	Chl/py/cpy/mt veining @ ~ 324.16 metres, enveloped with weak brown sericite +/- fine biotite alt'n. Pyrite and cpy aggregates associated with qtz veining between 322.93 to 323.10 metres. Patchy chloritic alteration as in earlier samples.	113526	0.022	0.008
325.00	327.00		2.0	0.1	12 QVN 0 5	Py and cpy aggregates associated with qtz veining locally @ 325.43 metres, also very finely disseminated on flow. Slight brown colouration possibly due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally.	113527	0.016	0.008
327.00	329.00		2.0	0.1	6 QVN 5 10	Patchy brown colour as above. Milky white qtz vein associated with chl between 327.44 to 327.55 metres enveloped by biotite. Qtz/kfsp veining between 328.02 to 328.07 metres and between 327.08 to 327.16 metres.	113528	0.016	0.006

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
329.00	330.80	Fine-medium-grained brown grey massive chloritic sericitic	2.0 0.1	18	QVN 5 15	Augite phenocrysts visible locally. Pyrite and cpy aggregates locally associated with qtz veining. Local increases in qtz veining @ ~ 329.93 to 330.21 metres.	113529	0.025	0.019
330.80	332.00		1.0 0.1	15	QVN 30 15	Qtz veining between 330.80 to 331.49 metres. Patchy brown colour as in previous samples. Augite phenocrysts visible locally.	113530	0.017	0.034
332.00	334.00	Fine-medium-grained grey brown massive chloritic silicic	2.0 0.1	11	QVN 90 10	Pyrite and cpy aggregates associated with qtz veining @ ~ 0 degrees t.c.a. Patchy brown colour as in previous samples. Intermediate/felsic portions.	113531	0.01	0.005
334.00	336.00	Fine-medium-grained grey brown massive chloritic sericitic	2.0 0.1	17	QVN 0 20	Patchy, slight brown colour due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Chloritic portions. Qtz veining between 334.35 to 335.11 metres and 335.26 to 336.00 metres locally associated with pyrite aggregates.	113533	0.008	-2
336.00	338.00	Fine-medium-grained grey brown massive chloritic silicic		42	QZVN 80 7	Rare zeolite associated with qtz veining. Qtz vein between 336.10 to 336.17 metres. Slight brown colouration as above. Augite and biotite visible locally. No pyrite visible.	113534	0.009	-2
338.00	340.00	Fine-medium-grained grey brown amygdular chloritic silicic		26	QZVN 0 10	Augite and biotite visible locally. Qtz veining between 338.14 to 338.22 metres and 338.82 to 339.75 metres associated with weak patchy epidote and potassic alt'n. Locally vuggy qtz/calcite veining. Qtz/zeo veining.	113535	0.004	-2
340.00	342.00	Fine-medium-grained grey brown massive chloritic silicic		3	QVN 5 7	Weak, patchy brown colour as in previous samples. Augite and biotite visible locally. No sulphides visible. Qtz veining bound by sericite +/- fine biotite alt'n in places.	113536	-2	-2
342.00	344.00		1.0	9	QVN 70 20	Increased qtz veining between 342.30 to 342.72 metres associated with patchy brown colour, possibly sericite +/- fine biotite alt'n. Augite and biotite visible locally. Rare pyrite aggregates associated with qtz veining between 343.15 to 343.23 metres.	113537	-2	-2
344.00	346.00		2.0	21	QVN 0 20	Augite phenocrysts visible in association with qtz veining in sericite +/- fine biotite alt'n. White qtz vein between 344.50 to 345.55 metres. Associated with pyrite aggregates enveloped with chl/silica alt'n. Moderate sericite +/- fine biotite alt'n between 345.47 to 345.55 metres. Biotite visible locally from 345.55 metres.	113539	-2	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
346.00	348.00	Fine-medium-grained green brown massive chloritic silicic	0.5	20	QVN 90 5	Biotite speck visible locally. Slight brown colour as seen in previous samples. Qtz veining enveloped with brown sericite +/- fine biotite locally. Rare pyrite aggregates associated with qtz veining.	113540	0.001	-2
348.00	350.00		2.0 0.1	19	QZKV 50 7	Augite and biotite phenocrysts visible locally. Slight brown colouration as in previous samples. Qtz veining @ ~ 348.60 metres and between 348.93 to 348.97 metres (associated with chl, and fine pyrite +/- cpy aggregates) and at 349.20 metres. Qtz/kfsp vein associated with rare pyrite aggregates between 349.23 to 349.79 metres, cross-cut locally by barren zeolite veining.	113541	0.001	-2
350.00	352.00	Fine-medium-grained medium green massive chloritic silicic	1.0 0.1	28	QZKV 20 7	Augite and biotite visible locally. Brown colour as seen in previous samples. Qtz/kfsp veining associated with pyrite aggregates bound by brown weak to moderate sericite +/- fine biotite alt'n. Cross-cut by barren zeolite veining and late stage qtz stringers.	113542	-2	-2
352.00	354.00		0.5	35	QZVN 30 5	Faint brown colouration as seen in prior samples associated with qtz stringers and veins locally. Vuggy, milky white qtz vein plus minor calcite between 354.53 to 354.63 metres. Rare disseminated pyrite.	113543	0.005	-2
354.00	356.00		1.0	15	QZVN 0 7	Augite and biotite visible locally. Fault zone between 355.06 to 355.23 metres associated with qtz/calcite veining. Local broken zone. Pyrite aggregates associated with qtz/zeo veining @ ~ 356.95 to 357.00 metres.	113544	0.005	-2
356.00	358.00		0.5	12	QZVN 50 10	Medium green, chloritic. Qtz/zeo veining locally. Minor biotite specks visible locally. Rare pyrite aggregates locally associated with qtz veining.	113545	0.005	-2
358.00	359.66		0.5	6	QZVN 60 10	Local increase in qtz veining between 358.27 to 358.64 metres and zeolite veining between 360.10 to 360.66 metres associated with broken zone. Augite phenocrysts visible @ ~ 360.21 to 360.40 metres. Very faint brown colour as seen in prior samples.	113546	0.002	-2
359.66	360.96	Fine-medium-grained green-grey porphyritic chloritic silicic	0.5	16	QZHV 80 10	Dominant augite phenocrysts visible in green/gray intermediate mafic flow. Cut by qtz/zeo/calcite veining. Qtz/chl vein between 359.76 to 359.96 metres- possible fault zone, slightly broken associated with pyrite aggregates. Rare hematite stringers @ 360.41 metres associated with qtz/zeo veining.	113547	0.004	-2

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
360.96	363.02	Fine-medium-grained green brown massive chloritic silicic		2	QZHV 5 15	Local increase in qtz/zeo stringers. Slight brown colour as in prior samples. Chloritic, light green/yellow between 360.96 to 361.12 metres associated with qtz/zeo veining. No visible sulphides. Very weak epidote and potassic alt'n, localized, between 361.74 to 361.77 metres. Epidote alt'n @ ~ 361.97 metres associated with zeo veining.	113548	0.001	-2
363.02	365.00	Fine-medium-grained green brown massive chloritic sericitic	0.5	0.1	10 QZKV 0 15	Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Augite and biotite visible locally. Broken zones. Local increase in qtz/zeo veining. Weak, patchy, localized epidote alt'n @ 364.46 metres. Rare kfsp veining. Rare pyrite and cpy aggregates (i.e.: 369.62 metres).	113549	0.007	-2
365.00	367.00	Fine-medium-grained green brown massive chloritic silicic		11	QZVN 70 7	Augite phenocrysts visible locally. Qtz veining @ ~ 366.66 to 366.75 metres. Brown, patchy colour as seen in prior samples. Local increase in veining with sericite +/- fine biotite and chl envelope.	113550	-2	-2
367.00	369.73			3	43 QZVN 0 7	Augite phenocrysts visible locally. Qtz/zeo veining enveloped with brown sericite/biotite. Veining associated with chl and kfsp locally. Magnetite aggregates associated with qtz veins between 369.33 to 369.36 metres and massive magnetite @ ~ 369.20 metres.	113551	-2	-2
369.73	371.62	Fine-medium-grained medium brown massive sericitic silicic	1.0	0.1	7 QVN 5 7	Augite and biotite visible locally. Weak to moderate sericite +/- fine biotite alt'n. Qtz veining enveloped with brown/yellow (possibly moderate sericite) alt'n, associated with pyrite aggregates also in flow.	113552	0.001	-2
371.62	372.38		1.0		19 QVN 70 20	Brown/yellow sericite stringers associated with brown portions of moderate sericite +/- fine biotite alt'n and qtz (371.62 to 371.97 metres). Pyrite aggregates.	113553	0.005	-2
372.38	374.00	Fine-medium-grained brown green massive sericitic chloritic	2.0	0.1	3 15 QZVN 50 10	Smoky gray qtz and magnetite vein between 372.38 to 372.50 metres associated with pyrite stringers and cpy. Brown colour due to weak sericite +/- fine biotite alt'n. Biotite specks visible locally. Barren qtz/zeo veining. Massive magnetite units locally associated with qtz veining between 373.35 to 373.60 metres.	113554	0.004	-2
374.00	375.65		0.5		28 QZVN 3 5	Augite and biotite visible locally. Brown colour as in prior samples. Barren qtz veining associated with zeo between 374.48 to 374.71 metres.	113555	0.003	-2

375.65

380

**ANDESITE FLOW**

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
375.65	377.00	Fine-medium-grained medium grey massive chloritic silicic	0.5	2	9 QZVN 80 3	Augite and biotite visible locally. Very weak sericite +/- fine biotite. Qtz veining associated with magnetite veining locally. Rare zeolite veining.	113556	0.008	-2
377.00	378.00		0.5	2	12 QZVN 70 5	Augite and biotite visible locally. Qtz veining associated with magnetite veining between 377.26 to 377.31 metres and 379.60 to 377.66 metres.	113557	0.01	-2
378.00	380.00			1	18 QZVN 50 3	Augite and biotite visible locally. Brown colour due to weak sericite +/- fine biotite between 378.00 to 378.24 metres. Pyrite aggregates associated with qtz veining. Weak epidote and potassic alt'n associated with qtz and magnetite aggregates.	113558	0.005	-2
380	487.98	<b>BASALT FLOW</b>							
380.00	382.00	Fine-medium-grained dark grey massive chloritic silicic	2.0	1	27 QVN 30 5	Augite and biotite visible locally. Pyrite aggregates in association with qtz veining @ ~ 381.05 to 381.13 metres and 381.36 to 381.47 metres. Mag/Qtz veining associated with epidote alt'n between 381.23 to 381.30 metres. Weak potassic alt'n with qtz veining and pyrite between 381.73 to 381.85 metres.	113559	0.001	-2
382.00	384.00	Fine-medium-grained dark grey porphyritic chloritic sericitic	2.0	1	31 QZKV 0 7	Medium gray andesitic portion in dark gray basaltic flow. Augite and biotite visible locally. Weak brown alteration just like in every other bloody sample. Chlorite/Qtz veining between 382.40 to 382.52 metres. Kfsp/Qtz between 382.60 to 382.64 metres. Light gray/green felsic portion with dark brown/green mafic portion between 382.81 to 382.98 metres. Qtz vein associated with pyrite aggregates.	113560	0.001	-2
384.00	385.85	Fine-medium-grained dark grey massive chloritic silicic	2.0	2	57 QZVN 70 7	Pyrite aggregates in flow and confined to Qtz veining. Weak potassic alt'n associated with weak patchy epidote alt'n between 385.00 to 385.06 metres. Mag/Qtz veining @ 385.17 metres. Very slight brown colour due to weak sericite +/- fine biotite alt'n. Local broken zones.	113561	0.003	-2
385.85	387.00	Fine-medium-grained medium grey massive chloritic silicic		3	23 QZVN 80 15	Augite visible locally. Intermediate mafic flow. Massive magnetite in flow. Qtz/magnetite veining between 385.85 to 386.18 metres and zeo veining between 386.18 to 386.35 metres.	113562	0.001	-2
387.00	389.00		0.5	3	22 QZVN 70 5	Massive magnetite and mag veining. Qtz veining with brown sericite +/- fine biotite altered envelope. Augite phenocrysts visible locally, slightly altered. Rare zeo veining. Intermediate mafic/basaltic flow.	113563	0.001	-2

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
389.00	391.00	Fine-medium-grained medium grey massive chloritic silicic	0.5	5	28 QZVN 0 7	Pyrite aggregates associated with qtz/zeo lined joints. Augite phenocrysts visible locally. Qtz veining enveloped locally by weak sericite +/- fine biotite alt'n @ 389.20 metres. Qtz/kfsp/mag veining @ ~ 390.25 metres. Pyrite stringers and aggregates. Massive magnetite and stringers.	113565	0.003	-2
391.00	393.00	Fine-medium-grained grey brown massive chloritic silicic		2	21 QZVN 80 7	Medium to dark gray flow. Augite phenocrysts visible locally with white gray non-fizzing phenocrysts. Qtz/magnetite veining. Patches of brown colour as in prior samples.	113566	0.001	-2
393.00	395.00		1.0	2	42 QZVN 5 15	Potassic altered flow from 393.60 to 394.52 metres, associated with weak localized epidote alt'n. Pyrite aggregates associated with qtz/zeo veining between 393.60 to 393.63 metres. Massive magnetite and stringers @ ~ 395.81 to 395.85 metres.	113567	0.002	-2
395.00	397.00		1.0	1	8 QZVN 90 10	Kfsp veining associated locally with qtz veining. Potassic/epidote alt'n, weak and patchy, between 395.42 to 395.79 metres. Patchy brown colour as in prior samples. Magnetite stringers and massive mag in flow. Qtz/zeo veining bound by sericite alt'n between 396.42 to 396.54 metres and 396.68 to 396.98 metres. Rare pyrite aggregates associated with veining.	113568	-2	-2
397.00	399.00	Fine-medium-grained dark grey massive chloritic silicic		2	31 QZKV 90 15	Potassic alt'n or kfsp veining between 397.16 to 397.23 metres associated with qtz veining. Mafic basaltic flow. Local broken zones. Augite phenocryst visible. Magnetite/Qtz veining. Qtz/zeo veining between 397.78 to 398.17 metres.	113569	-2	-2
399.00	401.00			2	15 QZVN 30 7	Patchy brown colouration as above (weak sericite +/- fine biotite alt'n); envelopes Qtz veining. Massive magnetite @ ~ 400.27 metres.	113570	0.001	-2
401.00	403.00			2	42 QZVN 3 3	Augite phenocrysts visible locally. Mafic, massive magnetite in flow, magnetic, difficult to see. Qtz/zeo veining. Very slight brown colour as described above. Mag/Qtz veins. Medium gray in places, possibly intermediate flow- andesite. Very potassic and epidote altered- associated with Qtz/magnetite veining between 402.92 to 402.98 metres.	113571	0.004	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
403.00	405.00	Fine-medium-grained dark grey massive chloritic silicic	3	12	QZVN 90 7	Local porphyritic texture with visible augite phenocrysts. Dark gray, silicified, mafic flow. Very slight brown colour as described above. Massive magnetite between 403.58 to 403.64 metres. Magnetite in flow. Qtz/mag veining associated with weak potassic and epidote alt'n between 407.32 to 403.37 metres and 404.67 to 404.78 metres. local increase in zeolite veining.	113572	0.009	-2
405.00	407.00		1.0	3	17 QZVN 90 7	Augite phenocrysts visible in medium green intermediate mafic flow between 405.00 to 406.21 metres. Qtz mag veining. Qtz/zeo veining. Weak potassic alt'n between 406.50 to 406.55 metres associated with weak epidote alt'n. Pyrite aggregates @ ~ 406.75 metres. Very faint brown colour as described in prior samples.	113573	0.006	-2
407.00	409.00		1.0	3	1 QVN 30 10	Qtz veining associated with weak epidote and potassic alt'n @ ~ 407.4 4 metres and between 407.72 to 408.84 metres. Qtz veining with brown sericite +/- fine biotite alt'n envelope@ ~ 407.21 metres. Brown colour due to weak sericite +/- fine biotite alt'n. Pyrite aggregates.	113574	0.008	-2
409.00	411.00	Fine-medium-grained dark grey massive chloritic sericitic	2.0	3	12 QZVN 80 15	Qtz/mag veining associated with weak potassic and epidote alt'n as above. Qtz/zeo veining associated with pyrite aggregates between 410.31 to 410.84 metres. Brown portions as described above. Augite phenocrysts visible locally. Vuggy qtz vein between 410.27 to 410.31 metres.	113575	0.012	-2
411.00	412.53	Fine-medium-grained dark grey massive chloritic silicic	1.0	4	13 QVN 80 15	Qtz/mag veining increased locally, associated with disseminated pyrite. Brown patchy portions as above.	113576	0.01	-2
412.53	414.00			3	3 QZKV 90	Qtz/mag veining associated with weak potassic and epidote alt'n between 412.90 to 413.06 metres. qtz/cal veining@ 413.34 to 413.38 metres. Kfsp/zeo/qtz veining between 413.69 to 413.79 metres. Dark gray, mafic. Brown portions as above.	113577	0.001	-2
414.00	416.00		2.0	0.1	2 5 QZVN 80 7	Pyrite stringers @ ~ 414.75 metres- also present as aggregates associated with qtz veining +/- cpy. Augite phenocrysts locally. Kfsp/qtz /mag veining associated with pyrite aggregates between 414.05 to 414.13 metres. Qtz/mag vein. Magnetite also massive in flow.	113578	0.004	-2



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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
416.00	418.00	Fine-medium-grained dark grey massive chloritic silicic	2.0	2	8 QZKV 0 15	Qtz/mag vein between 416.31 to 416.53 metres associated with weak, patchy potassic alt'n and pyrite stringers. Kfsp/qtz/pot vein @ 416.61 metres. Low angle qtz veining associated with pyrite aggregates with alteration envelopes- brown, possibly sericite +/- fine biotite alt'n locally associated with weak potassic alt'n and sericite altered stringers (?).	113579	0.006	-2
418.00	419.00		2.0	3	27 QVN 70 20	Local increase in qtz/mag veining between 418.04 to 418.45 metres, locally associated with pyrite veins and aggregates @ 418.48, 418.71 and 418.85 metres.	113580	0.007	-2
419.00	420.00			3	32 QVN 0 5	Qtz/mag veining @ ~ 419.40 to 419.46 metres associated with very weak potassic and epidote alt'n between 419.08 to 419.16 metres. Augite phenocrysts visible locally in mafic, basaltic flow.	113581	0.002	-2
420.00	422.00		1.0	2	0 QZVN 3 10	Medium green/gray flow between 421.57 to 421.80 metres. Vuggy qtz vein between 421.80 to 421.92 metres associated with disseminated pyrite. Qtz/mag veining @ ~ 420.66 to 420.91 metres. Associated with pyrite aggregates @ ~ 421.00 metres. Shallow qtz/zeo veining between 421.57 to 421.80 metres. Kfsp/qtz vein @ 421.98 metres.	113582	0.022	0.013
422.00	424.00	Fine-medium-grained dark grey massive chloritic sericitic	1.0	2	11 QZVN 0 5	Brown, faint colouration due to weak sericite +/- fine biotite alt'n, locally enveloping shallow qtz veining and cross-cut by barren, high angle zeolite veining. Qtz/zeo veining between 422.30 to 422.41 metres associated with magnetite veining. Pyrite stringers.	113583	0.011	0.01
424.00	426.00	Fine-medium-grained dark grey massive chloritic silicic	1.0	4	1 QZVN 30 10	Massive magnetite, biotite visible locally. Faint, patchy brown colour @ ~ 425.00 metres. Qtz/mag veining between 424.74 to 424.78 metres. Pyrite aggregates. Qtz/zeo veining between 425.55 to 426.00 metres.	113584	0.032	0.013
426.00	428.00		0.5	1	2 QZVN 80 30	Kfsp/potassic alt'n between 427.02 to 427.45 metres associated with chl and qtz veining. White/yellow specks, soft, hardness <3- possibly leucoxene- between 426.80 to 426.87 metres. Patchy brown colour due to weak sericite +/- fine biotite alt'n.	113585	0.029	0.021
428.00	430.00	Fine-medium-grained grey brown massive chloritic sericitic	0.5	1	2 QZMOV 90 10	Brown colour as above. Locally siliceous. Pyrite aggregates in qtz/zeolite. Qtz vein between 428.99 to 429.00 metres associated with kfsp and moly aggregates. Locally mottled texture. Pyrite aggregates in flow.	113586	0.009	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
430.00	432.00	Fine-medium-grained grey brown massive chloritic sericitic		1	1 QKZMO 80 15	Brown colour as above. Milky white qtz veins associated with moly stringers between 430.99 to 431.11 metres. Weak to moderately siliceous. Kfsp/zeo/qtz veining. Massive magnetite.	113587	0.005	-2
432.00	433.89	Fine-medium-grained dark grey massive chloritic silicic		0	0 QKZHC 40 7	Chloritic between 433.39 to 433.89 metres. Fault zone plus FeCaO@ ~ 433.51 metres. Augite phenocrysts visible locally. Dark gray between 432.00 to 433.39 metres- cut by kfsp/qtz/zeo veining. Massive magnetite. local increase in qtz/zeo/kfsp veining between 432.63 to 432.87 metres. Chloritic green portion associated with qtz/calcite discontinuous veining/stringers.	113588	0.004	-2
433.89	436.00	Fine-medium-grained grey brown mottled chloritic sericitic	0.5	2	QZKMO 3 15	Chloritic between 434.00 to 434.21 metres. Intermediate, andesitic flow. Gray/brown due to weak to moderate sericite +/- fine biotite alt'n. Mottled locally with dark green/black chloritic patches. Local increase in zeolite veining between 434.30 to 434.40 metres. Kfsp veining between 434.63 to 434.80 metres and 435.20 to 436.52 metres locally associated with moly @ 435.38 to 435.52 metres. Qtz/zeo veining @ 435.64 to 435.70 metres.	113589	0.004	-2
436.00	438.00			3	9 QZKMO 0 7	Weak potassic alt'n between 437.82 to 437.93 metres enveloping qtz/zeolite veining. Qtz/mag veining between 437.35 to 437.58 metres. Brown colour due to weak sericite +/- fine biotite alt'n.	113591	-2	-2
438.00	440.00		2.0	3	12 QZKV 80 7	Weak, patchy potassic alt'n between 438.29 to 439.33 metres and 438.71 to 438.74 metres and 439.34 to 439.55 metres. Brown colour as above. Kfsp veining associated with pyrite aggregates @ 438.94 metres.	113592	0.014	0.014
440.00	442.00		3.0	0.1	2 6 QZKV 5 10	Locally mottled texture. Pyrite stringers. Milky white qtz vein associated with kfsp and pyrite +/- cpy aggregates. Brown colour as above. Qtz/mag veining and massive magnetite between 442.26 to 442.48 metres and 443.17 to 443.25 metres.	113593	0.006	-2
442.00	444.00	Fine-medium-grained brown grey mottled chloritic sericitic	2.0	3	5 QZKV 80 15	Silicified, with massive magnetite. Brown colour as above. Locally mottled. Pyrite aggregates with kfsp/qtz veining. Kfsp/qtz veining between 442.58 to 442.62 metres.	113594	0.007	0.008
444.00	445.22	Fine-medium-grained brown grey massive chloritic sericitic	1.0	3	17 QZVN 0 10	Brown colour as above. Potassic between 444.78 to 444.95 metres. Massive magnetite between 444.55 to 444.67 metres. Broken locally. Disseminated pyrite in flow.	113595	0.004	0.005

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
445.22	446.40	Fine-medium-grained brown grey mottled chloritic sericitic	1.0	1	15 QZVN 70 5	Brown colour as above. Mottled texture, dark brown/green specks- possibly amygdules- in a medium brown/gray host flow.	113596	-2	-2
446.40	448.00	Fine-medium-grained brown grey massive chloritic sericitic	1.0	2	13 QZKV 0 10	Locally mottled as above. Brown colour as above. Local potassic altered portions between 447.55 to 447.76 metres. Pyrite aggregates associated with qtz/kfsp veining @ ~ 447.13 to 447.18 metres. Augite phenocrysts visible locally. Massive magnetite.	113597	0.006	-2
448.00	449.95	Fine-medium-grained dark brown mottled sericitic chloritic	2.0	2	4 QZKMO 0 10	Local increase in pyrite aggregates associated with kfsp/qtz/zeo shallow angle veining and moly between 448.96 to 449.22 metres. Brown colour, dark locally, due to weak to moderate sericite +/- fine biotite alteration. local broken zone.	113598	0.004	0.005
449.95	452.00	Fine-medium-grained dark brown massive sericitic chloritic	0.5	1	1 QZKMO 20 10	Dark brown as above. Local broken zone. Kfsp/qtz veining between 449.88 to 450.05 metres associated with rare moly aggregates.	113599	0.006	-2
452.00	454.00		0.5	1	0 QZMOV 80 10	dark brown colour as above. Light green, felsic between 452.59 to 457.72 metres cut by qtz/zeo/moly, rare. Locally mottled between 452.00 to 452.59 metres.	113600	0.008	0.006
454.00	455.85	Fine-medium-grained dark brown mottled sericitic chloritic		7	8 QZVN 70 5	Qtz veining associated with magnetite between 454.65 to 454.71 metres and 454.73 to 454.85 metres. Brown colour ranges from dark to faint/patchy due to weak to moderate sericite +/- fine biotite alt'n- envelopes qtz veining.	113601	0.008	0.005
455.85	457.00	Fine-medium-grained brown grey massive chloritic sericitic	1.0	2	5 QZKV 5 10	Brown/gray due to weak sericite +/- fine biotite alt'n. Slightly mottled between 456.10 to 456.20 metres. Qtz/kfsp vein associated with py aggregates enveloped with weak alt'n.	113602	0.024	0.012
457.00	459.00		2.0	0.2	3 7 QZKV 70 10	Cpy stringer @ ~ 457.45 metres associated with qtz vein. Brown/gray colour as above. Gray andesite flow between 457.00 to 457.50 metres. Qtz/kfsp vein between 457.97 to 457.22 metres enveloped with light brown/yellow alteration- possibly sericite. pyrite stringers and kfsp. Local broken portions.	113603	0.022	0.013
459.00	461.00	Fine-medium-grained medium grey massive chloritic sericitic	1.0	3	19 QZKV 30 7	Weak, patchy brown colour due to weak sericite +/- fine sericite alt'n. Pyrite stringers. Massive magnetite units. Kfsp/qtz/zeo veining .	113604	0.001	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
461.00	463.00	Fine-medium-grained grey brown massive chloritic sericitic	1.0	3	20 QZKV 90 10	Brown colour as above. Massive magnetite associated locally with weak epidote alt'n. Kfsp and qtz veining between 462.45 to 462.55 metres. Pyrite aggregates.	113605	0.002	-2
463.00	465.00	Fine-medium-grained medium grey massive chloritic silicic	0.5		5 QZKCV 0 7	Very weak, patchy brown colour as above. Mafic/intermediate flow. Kfsp/qtz veining. Massive magnetite. Rare pyrite aggregates.	113606	0.002	-2
465.00	467.00	Fine-medium-grained grey brown massive chloritic silicic	0.5	2	QKVN 30 5	Gray/brown colour due to weak sericite +/- fine biotite alt'n. Qtz/kfsp veining between 465.29 to 465.60 metres. Disseminated pyrite and pyrite stringers. Massive magnetite.	113607	0.008	0.006
467.00	469.00		0.5	2	QKVN 90 7	Gray/brown as above. Qtz/mag veining associated with kfsp locally. Broken between 467.37 to 467.57 metres. Massive magnetite +/- qtz veining.	113608	0.003	-2
469.00	471.00	Fine-medium-grained grey brown massive sericitic chloritic	1.0	2	QZ 30 10	Qtz/calcite vein between 469.60 to 469.77 metres associated with pyrite aggregates and enveloped with brown sericite +/- fine biotite alt'n. Qtz/mag veining associated locally with weak epidote alt'n.	113609	0.003	-2
471.00	473.00	Fine-medium-grained grey brown massive chloritic sericitic	2.0	1	QZVN 50 7	Medium brown/gray colour due to weak sericite +/- fine biotite alt'n enveloping qtz/zeo veining. Associated with kfsp and pyrite aggregates. Rare pyrite aggregates in flow.	113610	0.015	0.012
473.00	475.00	Fine-medium-grained dark grey massive chloritic silicic		2	QZKV 90 5	Weak potassic and epidote alt'n. Massive magnetite. Local increase in zeo/qtz veining. Disseminated pyrite. Mafic flow- basaltic.	113611	0.013	0.007
475.00	476.35	Fine-medium-grained grey brown massive chloritic sericitic	1.0		QZCV 90 7	Qtz/zeo veining between 475.22 to 475.30 metres with potassic envelope. Qtz/calcite @ ~ 475.64 metres. Pyrite aggregates associated with zeolite stringers. Faint brown colour due to weak sericite +/- fine biotite alt'n.	113612	0.012	0.006
476.35	478.00		1.0		QZKMO 60 15	Kfsp associated with qtz veining and magnetite locally. Augite phenocrysts visible locally. Faint brown colour as above. Moly stringer lining qtz vein @ ~ 477.89 metres.	113613	0.002	-2
478.00	480.00		2.0		QZKV 80 7	Brown/gray due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Kfsp/qtz/mag veining associated with pyrite aggregates locally.	113614	0.005	-2
480.00	481.58		1.0	1	QZKV 80 77	Brown/gray as above. Massive magnetite in flow. Kfsp/qtz veining between 480.70 to 480.86 metres associated with weak potassic alt'n and pyrite aggregates.	113615	0.003	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
481.58	483.04	Fine-medium-grained grey brown massive chloritic sericitic	1.0		QZKV 20 15	Local increase in qtz/zeo veining locally associated with pyrite aggregates @ 481.94 to 482.57 metres. Locally vuggy. Brown colour as above. Light gray/green, felsic flow between 481.94 to 482.00 metres. Qtz/mag veining between 482.96 to 483.04 metres.	113617	0.006	-2
483.04	485.00		1.0		QZKV 80 10	Brown/gray colour as above. Local broken zones. Kfsp/zeo/qtz between 484.65 to 484.90 metres. Disseminated and aggregate pyrite on planes.	113618	0.008	-2
485.00	487.00		1.0	1	QZVN 5 15	Brown/gray colour as above. Local increase in zeo/qtz veining between 485.11 to 485.53 metres. Qtz/mag veins between 485.88 to 485.93 metres.	113619	0.003	-2
487.00	487.98				4 QZVN 80 10	Brown colouration due to weak sericite +/- fine biotite alt'n. Local increase in qtz/zeo veining.	113620	0.003	-2
487.98	489.37	<b>BASALT FLOW BRECCIA</b>							
487.98	489.37	Fine-medium-grained medium brown massive chloritic chloritic	1.0		9 QZVN 90 10	Intrusive between 487.98 to 488.30 metres. Porphyritic, light gray matrix with qtz/plag phenocryst. Flow from 488.30 to 489.37 metres. Slight brown colour as above. Locally fragmented. Increased qtz/zeo discontinuous stringers. Rare pyrite aggregates.	113621	0.002	-2
489.37	538	<b>BASALT FLOW</b>							
489.37	490.90	Fine-medium-grained medium brown massive chloritic chloritic			4 QZKVN 30 15	Brown colour as above. Qtz/zeo veining. Localized weak potassic alt'n. Broken zones.	113622	0.01	0.005
490.90	492.21		0.5		1 QZKV 5 10	Brown colour as above. Qtz/zeo veining. Broken zones. Pyrite aggregates associated with qtz/kfsp veining between 491.31 to 491.63 metres. Localized increase in qtz/zeo veining associated with broken/faulted zone.	113623	0.014	0.012
492.21	494.00	Fine-medium-grained grey brown massive chloritic silicic	0.5	2	20 QZKV 80 5	Local increase in qtz/zeo veining between 492.95 to 493.11 metres. Slight brown colour due to weak sericite +/- fine biotite alt'n. Massive magnetite. Zeolite veining locally associated with pyrite aggregates.	113624	0.014	0.01
494.00	496.00		0.5		4 QZKCV 60 7	Gray/brown colour as above. Qtz/zeo veining. Local increase in veining associated with broken zone. Zeolite veining associated with pyrite aggregates.	113625	0.001	-2
496.00	498.00		1.0		6 QZKCV 80 7	Qtz veining associated with pyrite aggregates enveloped in brown alt'n- possibly weak sericite +/- fine biotite between 496.17 to 496.32 metres and 497.67 to 497.75 metres. Local broken zones.	113626	0.002	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
498.00	500.00	Fine-medium-grained grey brown massive chloritic silicic	0.5	1	19 QZVN 90 5	Broken zones. Very slight brown colour due to weak sericite +/- fine biotite alt'n. Qtz/calcite vein green/gray @ 497.55, and @ 499.55 metres. Kfsp/zeo/vein between 499.72 to 499.86 metres. Pyrite aggregates in zeo veining. Massive magnetite.	113627	0.006	-2
500.00	502.00				6 QZVN 20 10	Broken as above with competent portions. Increased qtz/zeo veining between 501.05 to 501.48 metres.	113628	0.006	-2
502.00	504.00	Fine-medium-grained grey brown massive chloritic sericitic	0.5		8 QZVN 20 7	Brown portions due to weak sericite +/- fine biotite alt'n. Qtz/zeo veining. Pyrite aggregates associated with qtz/kfsp veining. Qtz vein between 503.65 to 503.70 metres.	113629	0.001	-2
504.00	506.00				26 QZVN 10 10	Weak sericite +/- fine biotite as above. Local increase in qtz/zeo veining between 504.80 to 505.80. Broken. Qtz vein between 504.70 to 504.80 metres.	113630	0.002	-2
506.00	508.00		0.5		3 QZVN 20 15	Brown colour as above. Local increase in qtz/zeo veining between 507.51 to 507.67 metres and 506.25 to 506.55 metres. Pyrite aggregates associated with zeolite veining.	113631	0.008	-2
508.00	510.00		0.5		6 QKZMO 60 7	Brown colour as above. Pyrite aggregates associated with kfsp/qtz veining and rare moly. Qtz associated with magnetite veining.	113632	0.008	0.008
510.00	511.76			1	2 QZVN 70 10	Qtz/zeo veining, slightly fragmental between 510.58 to 510.82 metres. Broken zones. Local increase in veining. Magnetite.	113633	0.008	-2
511.76	514.03	Fine-medium-grained grey brown massive chloritic silicic		1	24 QZVN 20 7	Brown colour as above. Vuggy qtz vein between 512.95 to 513.10 metres and 513.44 to 513.67 metres. Massive magnetite.	113634	0.001	-2
514.03	515.00		1.0	1	17 QZCV 0 10	Potassic alt'n between 514.03 to 514.34 and 514.64 to 514.82 metres associated with qtz veining. Pyrite aggregates in zeolite. Brown colour as above.	113635	0.004	-2
515.00	517.00		0.5	1	15 QZCMO 10 10	Brown colour as above. Qtz vein between 516.25 to 516.35 metres. Kfsp veining @ ~ 516.56 to 516.65 metres. Qtz vein associated with moly @ ~ 516.83 metres. Massive magnetite, rare.	113636	0.008	-2
517.00	519.00	Fine-medium-grained grey brown massive chloritic sericitic	0.5	1	1 QZKV 50 7	Pyrite aggregates rare in flow. Brown colour as above. Broken zone associated with an increase in zeolite veining.	113637	0.004	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
519.00	521.00	Fine-medium-grained grey brown massive chloritic sericitic	0.5	11	QZKHV 80 10	Qtz/zeo veining between 520.35 to 520.59 metres. Magnetite aggregates and qtz/kfsp veining between 520.54 to 520.59 metres and at 520.70 to 521.00 metres. associated with rare iron carbonate (red/black- fizzes with HCl). Brown colour as above. Pyrite aggregates in flow.	113638	0.003	-2
521.00	523.00	Fine-medium-grained grey brown massive chloritic silicic	0.5	14	QZVN 30 7	Faint brown colour due to sericite +/- fine biotite alt'n. Local broken zones. Pyrite aggregates @ 521.88 metres.	113639	0.006	-2
523.00	525.00			4	QZVN 20 15	Brown colour and broken zones as above. Increased qtz/calcite between 524.00 and 524.20 metres. Weak, local potassic alt'n between 524.56 to 524.66 metres.	113640	0.005	-2
525.00	527.00			18	QZVN 70 15	Brown colour as above. Local increase in qtz/zeo stringers between 525.02 to 525.78 metres. Rare disseminated pyrite and pyrite aggregates. Intrusive dyke between 526.51 to 526.53 metres as in sample 113631. Brown colour as above. Broken zones. Qtz/zeo veining between 526.73 to 526.79 metres.	113641	0.003	-2
527.00	529.00	Fine-medium-grained grey brown massive chloritic sericitic		5	QZVN 3 10	Brown colour as above. Qtz/calcite veining @ ~ 528.14 metres. Broken portions. Kfsp/qtz veining associated with magnetite between 527.36 to 527.46 metres. Local increase in zeolite veining associated with broken fault zone.	113643	0.004	-2
529.00	531.00	Fine-medium-grained grey brown massive chloritic silicic		4	QZCV 90 20	Brown colour, patchy, weak due to sericite +/- fine biotite. Qtz/zeo veining, locally associated with rare hematite lining joints. Increased qtz/calcite veining between 529.46 to 529.83 metres and 530.00 to 531.00 metres. Broken zones.	113644	0.008	-2
531.00	533.00			3	QZVN 80 10	Vuggy qtz vein between 531.72 to 531.80 metres associated with zeolite. Brown colour as above. Broken portions.	113645	0.001	-2
533.00	535.00			9	QZVN	Very poor core recovery, rarely loss in fault zone. Brown colour as above. Qtz/zeo veining.	113646	-2	-2
535.00	537.00			5	QZVN 30 10	As above	113647	-2	-2
537.00	538.00			2	QZVN 90 10	Slightly more competent when compared to previous sample. Slight brown colour as above. Minor broken zones. Qtz/zeo veining.	113648	0.004	-2

538

550.29

QUARTZ MONZONITE

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
538.00	540.00	Fine-medium-grained pink porphyritic silicic	1.0	11	QZCV 80 15	Kfsp; plag, mafic phenocrysts- possibly hornblende or amphibole in fine grained brown/pink matrix- appears to be weakly to moderately silicified. Qtz/zeo/calcite veining. Broken zones. Local finely disseminated pyrite (~539.80 metres). Pink staining might be due to potassic alteration. Unit is possibly qtz/monzo/syenite.	113649	0.002	-2	
540.00	542.00		0.5	13	QZCHV 90 10	As above with rare hematite veining associated with zeo/Qtz/calcite veining.	113650	0.002	-2	
542.00	544.00		0.5	10	QZCV 80 10	Same as sample 113649 with mafic fragments- possibly xenoliths from basaltic flow in hanging wall of intrusive unit- between 542.67 to 542.71 and 542.90 to 542.92 metres.	113651	0.003	-2	
544.00	546.00		0.5	12	QZCV 1 7	Same as sample 113649 with mafic fragments as described above between 544.00 to 544.03 and 545.37 to 545.40 metres.	113652	0.003	-2	
546.00	548.00		0.5	18	QZCHV 90 7	Same as sample 113649 with mafic fragments as described above between 546.94 to 547.03 metres and 547.36 to 547.49 metres. Rare hematite associated with Qtz/zeo veining.	113653	0.003	-2	
548.00	549.00		0.5	8	QZCV 70 7	Same as sample 113649 with mafic fragments as described above between 548.79 to 548.91 metres.	113654	0.002	-2	
549.00	550.29		0.5	11	QZCV 90 7	Footwall of contact between Qtz monzo is defined by Qtz/zeo/calcite veining @ ~ 1 to 3 degrees t.c.a.	113655	0.002	-2	
<b>550.29</b>	<b>551.85</b>	<b>DIABASE POST-MINERAL DYKE</b>								
550.29	551.85	Fine-medium-grained dark green porphyritic chloritic silicic		15	QZCV 70 10	Mafic, possibly post mineralization dyke. Qtz/calcite phenocrysts, hardness between 3 and 5, fizz with HCl. Qtz/calcite stringers, locally discontinuous, in dyke. Rare zeolite veining.	113656	-2	-2	
<b>551.85</b>	<b>555.89</b>	<b>QUARTZ MONZONITE FAULT ZONE</b>								
551.85	553.00	Fine-medium-grained green brown porphyritic chloritic	0.3	0.1	9	QZCV 90 15	Flow breccia fault zone. Pink Qtz monzo/syenite, phenocrysts barely visible appears to be fragmented/brecciated with gray clay gouge material in between fragments. Qtz/zeo/calcite veining locally discontinuous. Disseminated pyrite +/- cpy visible, rare.	113657	0.006	-2
553.00	555.00		0.1	0	QZCHV 80 15	As above with iron carbonate between 554.84 to 555.00 metres. Disseminated pyrite.	113658	0.003	-2	



## Hole Number: KN-02-45

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
555.00	555.89	Fine-medium-grained green brown porphyritic chloritic	2.0	0.5	1 QZCHV 80 15	Same as sample 113657 with vuggy structure between 555.04 to 555.17 metres. Joint planes lined by hematite. Kfsp/qtz breccia @ ~ 555.60 to 555.64 metres. Disseminated pyrite and cpy between 555.64 to 555.70 metres. Fault zone filled with gouge, pyrite, cpy between 555.74 to 555.76 metres. Smoky gray qtz vein associated with disseminated pyrite.	113659	0.139	1.175
<b>555.89</b>	<b>557.66</b>	<b>ANDESITE FLOW</b>							
555.89	557.66	Fine-grained medium green massive chloritic silicic	0.1		8 QZCHV 70 15	Mafic volcanic, medium green, chloritic, slightly silicified. Qtz/zeo/calcite veining randomly oriented, irregularly spaced. Locally associated with hematite veining. Late stage barren qtz veining cross-cutting all veining. Intermediate volcanic flow.	113660	0.016	0.008
<b>557.66</b>	<b>564.4</b>	<b>QUARTZ MONZONITE</b>							
557.66	559.00	Fine-medium-grained pink porphyritic silicic	0.1		10 QZCV 80 10	Kfsp, plag, mafic phenocrysts visible in a light brown/pink, weakly silicified matrix with moderate potassic alt'n. Qtz/zeo/calcite veining randomly oriented and irregularly spaced. Broken zones.	113661	0.006	-2
559.00	561.00		0.1		11 QZCV 10	As above.	113662	0.006	-2
561.00	563.00		0.1		7 QZCV 10		113663	0.006	-2
563.00	564.40		0.1		9 QZCV 10	Foot wall contact of intrusive defined by qt/calcite/hem veining @ ~ 45 to 50 degrees t.c.a.	113664	0.008	-2
<b>564.4</b>	<b>580</b>	<b>ANDESITE FLOW</b>							
564.40	566.00	Fine-medium-grained medium green massive chloritic silicic	0.1		7 QZCV 70 15	Medium grained intermediate to mafic volcanic flow. Qtz/zeo/calcite veining randomly oriented. Very rare sulphide aggregates, possibly pyrite.	113665	0.011	-2
566.00	568.00		0.1		6 QZCV 60 15	Pyrite aggregates associated with qtz/zeo veining- with hematite in places. Medium green, intermediate/mafic flow as above. Increased calcite veining.	113666	0.004	-2
568.00	570.00				6 QZCHV 70 20	Intermediate andesitic flow as above. Kfsp and qtz veining between 568.63 to 568.67 metres. Qtz/hem/calcite veining.	113667	0.012	0.006
570.00	572.00	Fine-medium-grained green brown massive chloritic silicic			10 QZCHV 20 20	Local increase in qtz/cal/kfsp veining between 570.95 to 571.03 metres. Very slight brown colour due to weak sericite +/- fine biotite alt'n. Broken zones. Intermediate flow- andesitic.	113669	0.006	0.005

**Hole Number: KN-02-45**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
572.00	574.00	Fine-medium-grained green brown massive chloritic silicic		10	QZCHV 15 20	Weak brown colour as above. Intermediate flow/andesite. Qtz/zeo/hem/calcite veining randomly oriented, irregularly spaced.	113670	0.011	-2
574.00	576.00			3	QZCHV 70 15	As above with an increase in broken portions. Augite phenocrysts visible locally. Intermediate/mafic basaltic flow in parts.	113671	0.01	0.005
576.00	578.00			1	QZCHV 30 10	Same as sample 113670 with rare hematite veining lining joint planes associated with qtz/zeo/calcite locally.	113672	0.009	0.006
578.00	580.00			3	QZCV 70 10	Same as sample 113670 with qtz/zeo/calcite veining. Broken locally.	113673	0.01	0.005
580	582.47	<b>BASALT FLOW</b>							
580.00	581.04	Fine-medium-grained medium green massive chloritic silicic		3	QZCV 80 10	Same as sample 113670 with augite phenocrysts visible locally. Flow possibly more mafic than intermediate. Broken locally. Qtz/zeo/calcite veining.	113674	0.006	0.006
581.04	582.47			4	QZCV 60 10	Same as sample 113670.	113675	0.043	0.106
582.47		EOH							

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-46**

<b>Northing:</b> 16315	<b>Total Depth:</b> 569.03m
<b>Easting:</b> 10059.2	<b>Azimuth:</b> 0°
<b>Elevation:</b> 1687.1	<b>Dip:</b> -90°

<b>Geologist:</b> B. Mercer
<b>Logged Date:</b> 9/23/2002

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
112 m	309 °	-73 °	Mechanical
203 m	225 °	-81 °	Mechanical
295 m	32 °	-82 °	Mechanical
386 m	18 °	-85 °	Mechanical
478 m	0 °	-88 °	
569 m	51 °	-78 °	Mechanical

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-46**

From (m)	To (m)	Rock Type	Comments
0	15.85	CASING	Overburden - From 9.75 to 15.85 is fragments of boulder till.
15.85	24.99	FERRICRETE	Sampled from metre block to metre block due to poor recovery.
24.99	62.35	POLYLITHIC TUFF TOODOGGONE	
62.35	135	INTERMEDIATE FRAGMENTAL	Toodoggone / Takla contact. Contact is broken but is not necessarily strong evidence of a fault.
135	140.75	INTERMEDIATE VOLCANIC LITHIC TUFF	2-5m size lithic rich tuff. Finer grained than unit immediately above and more uniform in size and texture.
140.75	167.92	INTERMEDIATE VOLCANIC FLOW	Can see relict BFP texture at start of sample. Probable flows as opposed to BFP fragmental but hard to see through alteration.
167.92	168.34	INTERMEDIATE VOLCANIC FAULT	M.g. disseminated pyrite.
168.34	170.9	INTERMEDIATE VOLCANIC FLOW	Includes narrow zone of fragmental looking texture. Probable flow-top breccia.
170.9	187.4	INTERMEDIATE FRAGMENTAL TUFF	Locally visible ghost outlines of fragments. Probable tuff but may be volcanoclastic rock.
187.4	189.2	INTERMEDIATE FRAGMENTAL FAULT	Highly broken rock with several sericite / pyrite rich gouge zones.
189.2	193.1	INTERMEDIATE FRAGMENTAL TUFF	
193.1	194.16	INTERMEDIATE FRAGMENTAL FAULT	30cm of bkn. rock and sericite gouge at both ends of sample. Dissem. py. in both hard rock and gouge.

Hole Number: **KN-02-46**

From (m)	To (m)	Rock Type	Comments
194.16	209	BLADED FELDSPAR PORPHYRY FLOW	Can see relict BFP texture locally. Patchy silicification. Py. predominantly in massive veinlets and semi-massive aggregates.
209	232.67	INTERMEDIATE VOLCANIC FLOW	Broken zone. Possible fault.
232.67	264	BLADED FELDSPAR PORPHYRY FLOW	Strong chlorite / sericite alteration imparts a mottled texture. Also relict BFP texture.
264	268.45	INTERMEDIATE VOLCANIC FLOW	All of the magnetite here is in one 2cm wide vein at 264.51m. Moderate but locally patchy silicification.
268.45	270.45	INTERMEDIATE VOLCANIC FAULT	Several seams of gouge up to 5cm wide with broken rock in between. Large (up to 10cm) qtz. veins with narrow py. seams at centres.
270.45	271.5	INTERMEDIATE VOLCANIC FLOW	Several seams of gouge up to 5cm wide with broken rock in between. Large (up to 10cm) qtz. veins with narrow py. seams at centres.
271.5	293.9	BLADED FELDSPAR PORPHYRY FLOW	Sample contains 5% magnetite i.e. three massive veins total 11cm wide. About 10% of veins is py. mixed through magnetite in discontinuous stringers.
293.9	294.2	BLADED FELDSPAR PORPHYRY FAULT	Near 100% sericite gouge with just a few rock fragments.
294.2	355.75	BLADED FELDSPAR PORPHYRY FLOW	
355.75	356.3	INTERMEDIATE VOLCANIC FLOW	Well developed vein stock work of quartz / carbonate / zeolite veins.
356.3	357.2	DIABASE	Fine to medium grained, highly chloritic, feldspar porphyritic dyke. Upper contact at 30 deg. t.c.a. Lower contact at 25 deg. t.c.a.
357.2	359.3	INTERMEDIATE VOLCANIC FLOW	Very carb. rich qtz. / carb. / zeo. veins. Scattered magnetite rich replacement of host rock.
359.3	365.65	POST-MINERAL DYKE	Post mineral dyke of monzonitic looking composition. Consist of 5-8% pale cream coloured anhedral feldspar phenocrysts and 1-2% mafic (augite?) phenocrysts.

Hole Number: **KN-02-46**

From (m)	To (m)	Rock Type	Comments
365.65	401.9	INTERMEDIATE VOLCANIC FLOW	Strong chlorite / weak sericite alteration. Unit is fractured and breaks easily.
401.9	411	DACITE TOODOGGONE	Weakly chloritized dacite flows with rare blue-grey quartz-eyes.
411	447	POLYLITHIC TUFF TOODOGGONE	
447	461.4	DACITE TOODOGGONE	F.g to aphanitic dacite flow cut by numerous thin zeolite veinlets. Fractures easily at vein contacts.
461.4	465.8	MONZONITE POST-MINERAL DYKE	Crowded feldspar porphyry with v.f.g. disseminated pyrite.
465.8	470	DACITE TOODOGGONE	
470	566.5	MONZONITE POST-MINERAL DYKE	Anhedral plagioclase crowded porphyry. Chl. alt. on slips. Looks like a wide chill margin up to 482m.
566.5	570.58	DACITE TOODOGGONE	V.f.g. to aphanitic matrix with occasional plagioclase and quartz phenocrysts. Abundant calcite in tension gash veinlets. Trace c.g. pyrite.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	15.85	<b>CASING</b>							
0.00	15.85					Overburden - From 9.75 to 15.85 is fragments of boulder till.	46	-2	-2
15.85	24.99	<b>FERRICRETE</b>							
15.85	18.90	Coarse-grained brown grey brecciated limonitic	0.0	0.0	0 4	Sampled from metre block to metre block due to poor recovery.	116801	0.007	0.025
18.90	21.95		0.0	0.0	0 7		116802	0.007	0.048
21.95	24.99		0.0	0.0	0 0	Excellent recovery of ferricrete comprised of 60% gravel pebbles, 25% limonite and 15% void space.	116803	0.007	0.034
24.99	62.35	<b>POLYLITHIC TUFF TODOGGONE</b>							
24.99	27.00	Coarse-grained dark green heterogeneous chloritic	0.0	0.0	0 14		116804	0.011	0.024
27.00	29.00		0.0	0.0	0 19 CVN	5 3 From 29m to 43m calcite veins >> laumontite veins. Round rhyolite clasts.	116805	0.013	0.012
29.00	31.00		0.1	0.0	0 19 CVN	15 2 Tr. c.g. py. in two - 1cm qtz./carb. veins at 20 deg. to core axis.	116806	0.04	0.016
31.00	33.00	Coarse-grained dark green heterogeneous chloritic limonitic	0.0	0.0	0 26 CVN	0 2 Epidotized porphyry clasts.	116807	0.009	0.015
33.00	35.00	Coarse-grained dark green heterogeneous chloritic	0.0	0.0	0 14 CVN	15 2 Epidotized clasts.	116808	0.007	0.008
35.00	37.00		0.0	0.0	0 22 CVN	15 2 Cobble of pink coloured feldspar porphyry.	116809	0.012	0.018
37.00	39.00		0.0	0.0	0 19 CVN	15 2	116810	0.012	0.018
39.00	41.00		0.0	0.0	0 20 CVN	15 2	116811	0.005	-2
41.00	43.00		0.0	0.0	0 11 CVN	5 10 Epidotized clasts. Lg. vuggy calcite vein sub-parallel to core axis.	116812	0.007	0.022
43.00	45.00		0.0	0.0	0 9 ZCV	20 2 From 43m to 62.35m laumontite +/- carbonate veins >> calcite veins. Epidotized clasts.	116813	0.007	0.025
45.00	47.00		0.0	0.0	0 10 ZCV	20 2	116814	0.006	0.007
47.00	49.00		0.0	0.0	0 12 ZCV	20 2 Infrequent, small dark qtz. eyes. Epidotized clasts.	116815	0.007	0.013
49.00	51.00		0.0	0.0	0 29 ZCV	40 1	116816	0.007	0.017

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
51.00	53.00	Coarse-grained dark green heterogeneous chloritic	0.0 0.0	0	23 ZCV 10 1	Small dark qtz. eyes.	116817	0.007	0.013
53.00	55.00		0.0 0.0	0	24 ZCV 20 4		116818	0.006	0.005
55.00	55.47		0.0 0.0	0	16 ZCV 20 1	HQ ends	116819	0.005	0.03
55.47	57.00		0.0 0.0	0	9 ZCV 60 10	NQ starts. Note the sharp increase in zeolite / carbonate veins.	116820	0.006	0.008
57.00	59.00		0.0 0.0	0	24 ZCV 60 10		116821	0.009	0.013
59.00	61.00		0.0 0.0	0	18 ZCV 70 7		116822	0.01	0.029
61.00	62.35		0.0 0.0	0	14 ZCV 35 20	Note the sharp increase in zeolite / carbonate veins approaching contact with Takla volcanic rocks.	116823	0.025	0.11
62.35	135	<b>INTERMEDIATE FRAGMENTAL</b>							
62.35	64.00	Coarse-grained grey-green brecciated sericitic silicic	5.0 0.0	0	0	Toodoggone / Takla contact. Contact is broken but is not necessarily strong evidence of a fault.	116824	0.004	0.053
64.00	66.00		10.0 0.0	0	0	Can see c.g. fragmental texture through alteration. Local patchy, bright green translucent talc. F.g. anhydrite on slips	116825	0.001	0.013
66.00	68.00		10.0 0.0	0	0	Heavily dissem. to semi-massive py. locally. Silicification is confined to fragments which are in a soft sericitic matrix.	116827	0.002	0.014
68.00	70.00		10.0 0.0	0	0		116828	0.001	0.01
70.00	72.00		10.0 0.0	0	0	Silicification is strong. Py is controlled locally by a stock work of hairline fractures while it is more patchily disseminated in some places.	116829	0.001	0.01
72.00	74.00		10.0 0.0	0	0	Patchy translucent light green coloured talc.	116830	0.001	0.008
74.00	76.00		15.0 0.0	0	0	Strong py. mineralization in sericite matrix between silicified fragments.	116831	0.001	0.012
76.00	78.00		15.0 0.0	0	0	Rock has texture of being silicified then brecciated and pyritized as opposed to a primary volcanic fragmental.	116832	0.001	0.012
78.00	80.00		15.0 0.0	0	0	Anhydrite alteration is picking up in intensity on fractures and slips.	116833	0.001	0.014
80.00	82.00		10.0 0.0	0	0		116834	0.001	0.009
82.00	84.00		10.0 0.0	0	0		116835	0.001	0.009
84.00	86.00		10.0 0.0	0	0		116836	0.001	0.008
86.00	88.00		5.0 0.0	0	0 GAV 20 0	Tr. gypsum / anhydrite veins.	116837	0.001	0.005



**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
88.00	90.00	Coarse-grained blue grey brecciated sericitic silicic	5.0 0.0	0 0		Strong anh. alt. py. replacing round dark chloritic patches up to 2.5cm across. Presumably representing either rounded fragments or vesicles in protolith.	116838	-2	-2
90.00	92.00		7.0 0.0	0 0	PYV 20 0	As above with anhydrite +/- minor gypsum replacing rock matrix. As opposed to veins.	116839	-2	-2
92.00	94.00		7.0 0.0	0 0		Anhydrite +/- minor gypsum replacing rock matrix.	116840	0.001	0.009
94.00	96.00		15.0 0.0	0 0			116841	0.001	0.011
96.00	98.00		15.0 0.0	0 0			116842	0.001	0.009
98.00	100.00		10.0 0.0	0 0	GAV 10 0	Several thin veinlets of gypsum var. selenite at 10 deg. t.c.a.	116843	0.001	0.01
100.00	102.00		10.0 0.0	0 0			116844	0.001	0.006
102.00	104.00		15.0 0.0	0 0	ANH 30 0	Broken zone with strong anhydrite	116845	0.001	0.008
104.00	106.00		20.0 0.0	0 0		Very heavy py. in f.g. to semi-massive aggregates.	116846	0.001	0.011
106.00	108.00		15.0 0.0	0 0		Anhydrite decreasing in intensity while silicification is increasing in intensity.	116847	0.001	0.026
108.00	110.00	Coarse-grained grey brecciated sericitic silicic	8.0 0.0	0 0		Silicification is strong. Mottled texture of dark green round to elongate chloritic patches which are rich in py. Whereas the silicified areas outside these rounded areas are py. poor.	116848	0.002	0.019
110.00	112.00	Coarse-grained grey mottled sericitic silicic	20.0 0.0	0 0		Exactly as for 116848.	116849	0.002	0.017
112.00	114.00		10.0 0.0	0 0			116850	0.002	0.019
114.00	116.00		10.0 0.0	0 0			116851	0.002	0.017
116.00	118.00		10.0 0.0	0 0			116853	0.002	0.023
118.00	120.00		15.0 0.0	0 0			116854	0.003	0.025
120.00	122.00		15.0 0.0	0 0	GAV 10 0		116855	0.003	0.021
122.00	124.00		15.0 0.0	0 0	QVN 30 0		116856	0.004	0.021
124.00	125.17		15.0 0.0	0 0	GAV 15 0	Several thin veinlets of gypsum var. selenite.	116857	0.005	0.029
125.17	126.30	Coarse-grained grey brecciated sericitic silicic	20.0 0.0	0 0			116858	0.004	0.038
126.30	127.26		20.0 0.0	0 0			116859	0.004	0.023
127.26	127.62		7.0 0.0	0 0			116860	0.008	0.032

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
127.62	129.00	Coarse-grained grey brecciated sericitic silicic	5.0 0.0	0 0		Narrow zones of massive py. as well as heavily disseminated py.	116861	0.006	0.042
129.00	131.00		25.0 0.0	0 1		Py. as above.	116862	0.008	0.051
131.00	133.00		20.0 0.0	0 0			116863	0.006	0.028
133.00	135.00		15.0 0.0	0 0			116864	0.019	0.063
135	140.75	<b>INTERMEDIATE VOLCANIC LITHIC TUFF</b>							
135.00	137.00	Coarse-grained grey silicic sericitic	15.0 0.0	0 0	PVN 90 1	2-5m size lithic rich tuff. Finer grained than unit immediately above and more uniform in size and texture.	116865	0.029	0.068
137.00	139.00	Coarse-grained grey sericitic silicic	15.0 0.0	0 0	PVN 80 3	Strong sericite alteration with abundant py. veinlets.	116866	0.035	0.114
139.00	140.75	Coarse-grained grey silicic sericitic	15.0 0.0	0 0	PVN 90 1		116867	0.041	0.083
140.75	167.92	<b>INTERMEDIATE VOLCANIC FLOW</b>							
140.75	142.00	Coarse-grained light grey heterogeneous silicic sericitic	7.0 0.0	0 0	PVN 65 0	Can see relict BFP texture at start of sample. Probable flows as opposed to BFP fragmental but hard to see through alteration.	116868	0.023	0.042
142.00	144.00	Medium-grained light grey heterogeneous silicic sericitic	5.0 0.0	0 0	PVN 65 2		116869	0.042	0.106
144.00	146.00		10.0 0.0	0 0	PVN 65 2		116870	0.04	0.13
146.00	148.00		10.0 0.0	0 1	PVN 65 5	Abundant massive Py. veinlets.	116871	0.047	0.384
148.00	150.00	Coarse-grained light grey heterogeneous sericitic silicic	10.0 0.0	0 1	PVN 60 3	Possible relict BFP texture. Sericite >> silica alteration. The coarse texture of these flows may be just apparent due to alteration rather than a primary texture.	116872	0.067	0.131
150.00	152.00		7.0 0.0	0 0	PVN 90 0		116873	0.066	0.183
152.00	154.00		7.0 0.0	0 0	PVN 70 2		116874	0.066	0.159
154.00	156.00		5.0 0.0	0 1	PVN 65 0	M.g. disseminated pyrite.	116875	0.083	0.193
156.00	158.00	Coarse-grained grey heterogeneous sericitic chloritic	5.0 0.0	0 0	PVN 65 1	Darker colour due to patchy chlorite alteration.	116876	0.063	0.196
158.00	160.00	Coarse-grained light grey heterogeneous sericitic	5.0 0.0	0 0	PVN 50 3	M.g. disseminated pyrite.	116877	0.105	0.161
160.00	161.79		3.0 0.0	0 0	PVN 20 0	Sericite alteration becoming very strong starting hear.	116879	0.055	0.15
161.79	163.79		3.0 0.0	0 0	PVN 20 0	M.g. disseminated pyrite.	116880	0.032	0.118
163.79	165.37	Coarse-grained grey in-situ brecciated sericitic chloritic	3.0 0.0	0 0	FLT 40	Darker colour due to patchy chlorite alteration around in situ breccia. Narrow (3-4cm) gouge zone at end of sample.	116881	0.032	0.13

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
165.37	167.37	Coarse-grained light grey heterogeneous sericitic	3.0	0.0	0 0	M.g. disseminated pyrite.	116882	0.08	0.178
167.37	167.92	Fine-grained light grey homogeneous sericitic	3.0	0.0	0 0		116883	0.04	0.157
167.92	168.34	<b>INTERMEDIATE VOLCANIC FAULT</b>							
167.92	168.34	Fine-grained light grey brecciated sericitic	3.0	0.0	0 0	FLT M.g. disseminated pyrite.	116884	0.044	0.307
168.34	170.9	<b>INTERMEDIATE VOLCANIC FLOW</b>							
168.34	169.95	Fine-grained light grey in-situ brecciated sericitic	3.0	0.0	0 0	PVN 45 0 Includes narrow zone of fragmental looking texture. Probable flow-top breccia.	116885	0.045	0.149
169.95	170.90	Coarse-grained light grey in-situ brecciated sericitic	3.0	0.0	0 0	PVN 70 0 Includes 5 narrow zones of gouge with in situ bx. in between.	116886	0.069	0.202
170.9	187.4	<b>INTERMEDIATE FRAGMENTAL TUFF</b>							
170.90	172.90	Coarse-grained lt green-grey brecciated sericitic clay	3.0	0.0	0 1	Locally visible ghost outlines of fragments. Probable tuff but may be volcanoclastic rock.	116887	0.09	0.249
172.90	174.90		3.0	0.0	0 0		116888	0.056	0.209
174.90	176.90		4.0	0.0	0 0	Very patchy silicification with patchy massive pyrite.	116889	0.059	0.227
176.90	178.90		6.0	0.0	0 0		116890	0.049	0.201
178.90	180.90		3.0	0.0	0 0	Very strong ser. / clay. alteration. F.g to m.g. disseminated pyrite.	116891	0.049	0.194
180.90	182.90		3.0	0.0	0 0	QVN 35 0	116892	0.119	0.281
182.90	184.90		3.0	0.0	0 0		116893	0.088	0.248
184.90	186.90		3.0	0.0	0 0		116894	0.085	0.258
186.90	187.40		3.0	0.0	0 0		116895	0.094	0.268
187.4	189.2	<b>INTERMEDIATE FRAGMENTAL FAULT</b>							
187.40	189.20	Coarse-grained lt green-grey brecciated sericitic	3.0	0.0	0 0	FLT Highly broken rock with several sericite / pyrite rich gouge zones.	116896	0.115	0.287
189.2	193.1	<b>INTERMEDIATE FRAGMENTAL TUFF</b>							
189.20	191.20	Coarse-grained grey brecciated sericitic	3.0	0.0	0 0	PVN 30 0	116897	0.107	0.29
191.20	193.10	Coarse-grained lt green-grey brecciated sericitic	2.0	0.0	0 0	PVN 30 2	116898	0.15	0.329
193.1	194.16	<b>INTERMEDIATE FRAGMENTAL FAULT</b>							

## Hole Number: KN-02-46

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
193.10	194.16	Coarse-grained lt green-grey brecciated sericitic	5.0	0.0	0	0 FLT	30cm of bkn. rock and sericite gouge at both ends of sample. Dissem. py. in both hard rock and gouge.	116899	0.102	0.248
194.16	209	<b>BLADED FELDSPAR PORPHYRY FLOW</b>								
194.16	196.00	Coarse-grained green-grey heterogeneous sericitic silicic	5.0	0.0	0	0 PVN 35 2	Can see relict BFP texture locally. Patchy silicification. Py. predominantly in massive veinlets and semi-massive aggregates.	116900	0.141	0.302
196.00	198.00	Coarse-grained dark green heterogeneous sericitic chloritic	5.0	0.0	0	0 PVN 55 2		116901	0.145	0.296
198.00	200.00	Coarse-grained green-grey heterogeneous sericitic	5.0	0.0	0	0 PVN 45 2		116902	0.056	0.15
200.00	202.00		7.0	0.0	0	0 PVN 45 3	Can see relict BFP texture locally. Patchy silicification. Py. predominantly in massive veinlets and semi-massive aggregates. Ghost BFP texture.	116903	0.076	0.197
202.00	204.00	Coarse-grained green-grey heterogeneous sericitic silicic	15.0	0.0	0	0 PVN 30 7	Massive py. veins up to 4cm wide. Weak to patchy silicification. Ghost BFP texture.	116905	0.135	0.291
204.00	206.00		5.0	0.0	0	0 PVN 60 1	Ghost BFP texture. Abundant massive py. veinlets.	116906	0.12	0.255
206.00	208.00	Coarse-grained green-grey heterogeneous sericitic	7.0	0.0	0	0 PVN 40 5		116907	0.114	0.268
208.00	209.00		4.0	0.0	0	0 PVN 30 3		116908	0.095	0.297
209	232.67	<b>INTERMEDIATE VOLCANIC FLOW</b>								
209.00	210.25	Fine-grained light grey mottled sericitic	3.0	0.0	0	0	Broken zone. Possible fault.	116909	0.113	0.289
210.25	212.00		5.0	0.0	0	0 PVN 55 3	Mottled texture due to light and dark coloured sericite alteration. Appears fragmental locally and massive in other places.	116910	0.116	0.294
212.00	214.00		2.0	0.0	0	0 PVN 65 1		116911	0.093	0.231
214.00	216.00		5.0	0.0	0	0 PVN 40 3		116912	0.121	0.319
216.00	218.00		2.0	0.0	0	0 PVN 50 1		116913	0.094	0.223
218.00	220.00		2.0	0.0	0	1 FLT 30	1cm wide chlorite fault gouge @ 219.90m.	116914	0.132	0.291
220.00	222.00		2.0	0.0	0	0 QVN 40 2	Several banded and vuggy quartz veins.	116915	0.148	0.325
222.00	224.00		2.0	0.0	0	0 PVN 40 1	35% lost core.	116916	0.1	0.195
224.00	226.00		2.0	0.0	0	0 PVN 25 1		116917	0.102	0.184
226.00	228.00		2.0	0.0	0	0 PVN 45 1		116918	0.129	0.243
228.00	230.00		5.0	0.0	0	0 PVN 40 3		116919	0.135	0.239

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
230.00	232.00	Fine-grained light grey mottled sericitic	7.0 0.0	0	1 PVN 40 4		116920	0.162	0.293
232.00	232.67		2.0 0.0	0	0 PVN 55 1		116921	0.215	0.404
232.67	264	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
232.67	234.00	Coarse-grained grey-green sericitic chloritic	3.0 0.0	0	1 PVN 55 2	Strong chlorite / sericite alteration imparts a mottled texture. Also relict BFP texture.	116922	0.136	0.208
234.00	236.00		2.0 0.0	0	0 PVN 55 1	Relict BFP texture.	116923	0.124	0.235
236.00	238.00		1.0 0.0	0	0 PVN 55 0		116924	0.078	0.142
238.00	240.00		1.0 0.0	0	0 PVN 55 0		116925	0.101	0.208
240.00	242.00		3.0 0.0	0	0 PVN 55 1		116926	0.144	0.278
242.00	244.00		3.0 0.0	0	0 PVN 55 1		116927	0.181	0.343
244.00	246.00		3.0 0.0	0	0 PVN 45 2		116928	0.164	0.308
246.00	248.00		2.0 0.0	0	0 QVN 60 1	A 1cm X 3cm wide qtz. vein with py. at start of sample.	116929	0.174	0.334
248.00	250.00		3.0 0.0	0	0 PVN 50 2	Pyrite mostly in massive veins.	116931	0.093	0.167
250.00	252.00	Coarse-grained grey sericitic chloritic	3.0 0.0	0	0 PVN 50 2		116932	0.116	0.185
252.00	254.00		3.0 0.0	0	0 PVN 35 2	Good example of relict BFP texture with chloritization highlighting plagioclase laths in a sericitic matrix.	116933	0.136	0.234
254.00	256.00		5.0 0.0	0	0 PVN 50 2	Very weak chlorite alt. only.	116934	0.123	0.219
256.00	258.00		3.0 0.0	0	0 QVN 45 1	Qtz. veins with py. in centre i.e. implying open space formation.	116935	0.158	0.273
258.00	260.00		2.0 0.0	0	0 QVN 20 1	Faint BFP texture. Qtz. veins with py. in centre.	116936	0.121	0.216
260.00	262.00		3.0 0.0	0	0 PVN 20 2		116937	0.224	0.402
262.00	264.00		3.0 0.0	0	1 PVN 65 1	Contact appears gradational, probably due to overprinting by strong alteration.	116938	0.111	0.17
264	268.45	<b>INTERMEDIATE VOLCANIC FLOW</b>							
264.00	266.00	Fine-grained light grey homogeneous sericitic silicic	3.0 0.0	1	0 PVN 15 2	All of the magnetite here is in one 2cm wide vein at 264.51m. Moderate but locally patchy silicification.	116939	0.09	0.153
266.00	268.00		10.0 0.0	0	0 PVN 15 10	Strong silicification.	116940	0.074	0.163
268.00	268.45		20.0 0.0	0	0 PVN 15 20	Contact at 38 deg. t.c.a. Gouge at contact.	116941	0.138	0.303
268.45	270.45	<b>INTERMEDIATE VOLCANIC FAULT</b>							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
268.45	270.45	Fine-grained light grey homogeneous sericitic	10.0 0.0	0	0 QVN 35	5 Several seams of gouge up to 5cm wide with broken rock in between. Large (up to 10cm) qtz. veins with narrow py. seams at centres.	116942	0.126	0.22
<b>270.45</b>	<b>271.5</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
270.45	271.50	Fine-grained light grey homogeneous sericitic	7.0 0.0	0	1 QVN 35	5 Several seams of gouge up to 5cm wide with broken rock in between. Large (up to 10cm) qtz. veins with narrow py. seams at centres.	116943	0.127	0.285
<b>271.5</b>	<b>293.9</b>	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
271.50	273.50	Coarse-grained grey sericitic	3.0 0.0	5	394 MT 75	5 Sample contains 5% magnetite i.e. three massive veins total 11cm wide. About 10% of veins is py. mixed through magnetite in discontinuous stringers.	116944	0.141	0.217
273.50	275.50		3.0 0.0	0	0 PVN 50	1	116945	0.203	0.343
275.50	276.10		3.0 0.0	0	0 PVN 50	2	116946	0.102	0.193
276.10	278.16		2.0 0.0	0	1 FLT		116947	0.085	0.117
278.16	280.00	Coarse-grained grey sericitic chloritic	4.0 0.0	0	0 PVN 20	2 Can see BFP texture throughout strong sericite and weak chlorite alteration.	116948	0.141	0.228
280.00	282.00		5.0 0.0	0	0 PVN 45	2	116949	0.139	0.241
282.00	284.00		1.0 0.0	0	2 PVN 45	0	116950	0.114	0.188
284.00	286.00		7.0 0.1	0	0 PVN 45	5 Several thick, massive py. veins with several grains of chalcopyrite in one vein.	115101	0.23	0.416
286.00	288.00		2.0 0.0	0	0 PVN 30	1	115102	0.173	0.324
288.00	290.00		1.0 0.0	0	1 PVN 35	1 Very pronounced BFP texture.	115103	0.094	0.16
290.00	292.00		0.5 0.0	0	1		115104	0.1	0.192
292.00	293.90		1.0 0.0	0	0 QVN 40	2	115105	0.129	0.211
<b>293.9</b>	<b>294.2</b>	<b>BLADED FELDSPAR PORPHYRY FAULT</b>							
293.90	294.20	Coarse-grained green sericitic	0.0 0.0	0	1 FLT	Near 100% sericite gouge with just a few rock fragments.	115107	0.166	0.294
<b>294.2</b>	<b>355.75</b>	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
294.20	296.00	Coarse-grained grey sericitic chloritic	0.5 0.0	0	4 QVN 70	0	115108	0.154	0.209
296.00	298.00		0.5 0.0	0	1 QVN 45	0	115109	0.163	0.295
298.00	300.00		2.0 0.0	0	1 QVN 70	1 Several narrow quartz veins with pyrite at the centre.	115110	0.159	0.266

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
300.00	302.00	Coarse-grained dark grey sericitic chloritic	1.0 0.0	1	31 QVN 65 2	Magnetite in qtz. vein and replacing rock, mostly in lower half of sample. BFP texture very obvious.	115111	0.202	0.331
302.00	304.00	Coarse-grained grey sericitic chloritic	2.0 0.0	1	85 QVN 65 3	Scattered massive magnetite veins.	115112	0.146	0.292
304.00	306.00		1.0 0.0	1	28 QVN 60 3	Qtz. veins up to 2cm wide +/- py. Magnetite in host rock.	115113	0.208	0.45
306.00	308.00		1.0 0.0	0	0 QVN 30 3		115114	0.198	0.326
308.00	310.00		2.0 0.0	0	0 QVN 60 3		115115	0.271	0.317
310.00	312.00		2.0 0.0	0	0 QVN 30 3	Vuggy qtz. veins with c.g. py.	115116	0.207	0.366
312.00	314.00		2.0 0.0	1	38 QVN 35 3	Minor magnetite in host rock near end of sample. Patchy cream coloured silicification.	115117	0.246	0.453
314.00	316.00		3.0 0.0	0	1 QVN 50 2	Silicification is stronger than above.	115118	0.187	0.502
316.00	317.38		1.0 0.0	0	0 QVN 20 3	Silicification is strong.	115119	0.2	0.383
317.38	319.13	Coarse-grained dark green sericitic chloritic	2.0 0.0	0	1 QVN 20 1	Broken zone with minor gouge at both ends. Fault? sample is highly chloritic.	115120	0.192	0.277
319.13	321.00	Coarse-grained grey sericitic chloritic	0.5 0.0	0	4 QVN 40 2		115121	0.191	0.391
321.00	323.00	Coarse-grained light grey green sericitic chloritic	0.5 0.0	0	0 QVN 40 2	Minor pink zeolite.	115122	0.184	0.377
323.00	325.00	Coarse-grained light grey green sericitic silicic	10.0 0.0	0	0	Moderate to strong silicification with associated heavily disseminated pyrite.	115123	0.218	0.512
325.00	327.00	Coarse-grained grey-green sericitic silicic	2.0 0.1	0	0 QVN 30 2	Very weak, patchy silicification and minor pink zeolite.	115124	0.29	0.638
327.00	329.00	Coarse-grained grey-green sericitic	2.0 0.1	0	1 QVN 30 2		115125	0.242	0.473
329.00	329.92		2.0 0.0	0	0 QVN 30 2		115126	0.292	0.465
329.92	331.45	Coarse-grained light green brecciated sericitic	5.0 0.0	0	1 QVN 20 3	Extremely sericitic and highly brecciated BFP. Vuggy due to loss of sericite around more competent breccia fragments.	115127	0.202	0.39
331.45	331.90		50.0 0.0	0	0 PVN 25 50	50% massive pyrite veins with individual veins up to 10cm wide.	115128	1.705	3.19
331.90	333.90		10.0 0.0	0	0 PVN 25 5	Brecciated and ground pyrite veins.	115129	0.366	0.69
333.90	335.90		5.0 0.0	0	0 PVN 25 2	Strongly vuggy breccia texture.	115130	0.206	0.378
335.90	337.90	Coarse-grained light green sericitic	5.0 0.0	0	0 PVN 25 2		115131	0.25	0.371
337.90	340.00		2.0 0.0	0	0 CVN 15 2	Abundant calcite veins filling fractures.	115133	0.279	0.537
340.00	342.00		5.0 0.0	0	0 QCZV 65 5	Pyrite veins and quartz +/- zeolite veins.	115134	0.2	0.286

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
342.00	344.00	Coarse-grained light green sericitic chloritic	5.0	0.0	0 1 QCZV 65 5		115135	0.2	0.29
344.00	346.00	Coarse-grained green sericitic chloritic	1.0	0.0	0 0 QCZV 70 10	Abundant quartz / carbonate / zeolite veins. Pyrite mostly in quartz rich veins.	115136	0.16	0.265
346.00	348.00		1.0	0.0	0 0 QCZV 70 10		115137	0.243	0.452
348.00	350.00		1.0	0.0	0 0 QCZV 70 7		115138	0.205	0.33
350.00	352.00		5.0	0.0	0 0 QCZV 65 12		115139	0.154	0.295
352.00	354.00		2.0	0.0	0 0 QCZV 15	Well developed vein stock work.	115140	0.17	0.352
354.00	354.54		1.0	0.0	0 0 QCZV 55 15		115141	0.177	0.222
354.54	355.75		1.0	0.0	0 0 QCZV 55 15		115142	0.123	0.425
<b>355.75</b>	<b>356.3</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
355.75	356.30	Fine-grained light green homogeneous sericitic	2.0	0.0	0 0 CON 30	Well developed vein stock work of quartz / carbonate / zeolite veins.	115143	0.073	0.182
<b>356.3</b>	<b>357.2</b>	<b>DIABASE</b>							
356.30	357.20	Medium-grained grey black chloritic	0.0	0.0	0 5 CON 25	Fine to medium grained, highly chloritic, feldspar porphyritic dyke. Upper contact at 30 deg. t.c.a. Lower contact at 25 deg. t.c.a.	115144	0.008	0.017
<b>357.2</b>	<b>359.3</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
357.20	359.30	Fine-grained light green homogeneous sericitic	1.0	0.0	0 5 CON 70	Very carb. rich Qtz. / carb. / zeo. veins. Scattered magnetite rich replacement of host rock.	115145	0.151	0.144
<b>359.3</b>	<b>365.65</b>	<b>POST-MINERAL DYKE</b>							
359.30	361.30	Medium-grained brown maroon	0.0	0.0	0 17 QCV 25 7	Post mineral dyke of monzonitic looking composition. Consist of 5-8% pale cream coloured anhedral feldspar phenocrysts and 1-2% mafic (augite?) phenocrysts.	115146	0.004	-2
361.30	363.30		0.0	0.0	0 16 CVN 35 2		115147	0.004	-2
363.30	365.30		0.0	0.0	0 19 CVN 35 4		115148	0.004	-2
365.30	365.65		0.0	0.0	0 11 CON 55		115149	0.003	-2
<b>365.65</b>	<b>401.9</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
365.65	367.00	Fine-grained grey-green homogeneous chloritic sericitic	0.5	0.0	0 1 QCV 25 5	Strong chlorite / weak sericite alteration. Unit is fractured and breaks easily.	115150	0.1	0.097
367.00	369.00		2.0	0.0	0 5 QCV 75 5		115151	0.163	0.199
369.00	371.00		2.0	0.0	0 1 QCV 35 4		115152	0.184	0.172



**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
371.00	373.00	Fine-grained grey-green homogeneous chloritic sericitic	2.0 0.0	0	0 QCV 75 2		115153	0.17	0.218
373.00	375.00		2.0 0.0	1	14 QCV 75 2	Several thin magnetite / chlorite veinlets.	115154	0.141	0.145
375.00	377.00		2.0 0.0	0	2 QCV 75 1	Irregular c.g. blebs of py. in chlorite rich areas.	115155	0.158	0.231
377.00	379.00		2.0 0.0	0	5 QCV 30 1		115156	0.159	0.155
379.00	381.00		2.0 0.0	0	0 QCV 45 3		115157	0.114	0.102
381.00	383.00		2.0 0.0	0	0 QCV 65 3		115159	0.141	0.26
383.00	385.00	Fine-grained green homogeneous chloritic sericitic	2.0 0.0	0	0 QCV 0 5	Veins are just discontinuous gash-infill.	115160	0.16	0.31
385.00	387.00		2.0 0.0	0	0 QCV 45 3		115161	0.226	0.507
387.00	389.00		2.0 0.0	0	0 QCV 45 5		115162	0.133	0.289
389.00	391.00		2.0 0.0	0	0 QCV 55 3		115163	0.181	0.338
391.00	392.28	Coarse-grained green brecciated chloritic sericitic	0.1 0.0	0	0 QCV 0	Fault breccia and gouge zones.	115164	0.078	0.122
392.28	394.00	Fine-grained green homogeneous chloritic sericitic	2.0 0.0	0	0 QCV 10 3	Veins are mostly discontinuous gash-infill type.	115165	0.121	0.191
394.00	396.00		0.2 0.0	0	2 QCV 70 2		115166	0.151	0.203
396.00	398.00		0.2 0.0	0	0 QCV 80 1		115167	0.092	0.134
398.00	400.00		0.5 0.0	0	0 QCV 10 2		115168	0.065	0.083
400.00	401.90		0.5 0.0	0	0 CON 90	Bedding contact between Takla and Toodoggone rocks is sharp at 90 deg. t.c.a.	115169	0.147	0.268
401.9	411	<b>DACITE TOODOGGONE</b>							
401.90	403.00	Fine-grained dark green homogeneous chloritic	0.3 0.0	1	41 ZCV 1	Weakly chloritized dacite flows with rare blue-grey quartz-eyes.	115170	0.018	0.013
403.00	405.00		0.3 0.0	1	21 ZCV 5	Randomly orientated zeolite veinlets. V.f.g. disseminated magnetite i.e. need hand lens to see it.	115171	0.036	0.086
405.00	407.00		0.3 0.0	1	9 ZCV 2		115172	0.017	0.01
407.00	409.00	Coarse-grained dark green homogeneous chloritic	0.3 0.0	1	5 ZCV 2		115173	0.021	0.15
409.00	411.00		0.3 0.0	1	64 ZCV 0 5	Core broken. Contact not clear.	115174	0.015	0.021
411	447	<b>POLYLITHIC TUFF TOODOGGONE</b>							
411.00	413.00	Coarse-grained dark green heterogeneous chloritic sericitic	0.3 0.0	1	24 ZCV 10 10		115175	0.019	0.037

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
413.00	415.00	Coarse-grained dark green heterogeneous chloritic	0.3	0.0	1 5 ZCV 10 2		115176	0.013	0.013
415.00	417.00		0.3	0.0	1 2 ZCV 10 2	Silicified porphyry clasts.	115177	0.016	0.026
417.00	419.00		0.3	0.0	1 7 ZCV 45 2		115178	0.02	0.011
419.00	421.00		0.3	0.0	1 14 ZCV 15 2	Silicified porphyry, BFP clasts and quartz-eyes.	115179	0.014	0.024
421.00	423.00		0.3	0.0	1 13 ZCV 15 2		115180	0.012	0.008
423.00	425.00		0.3	0.0	1 24 ZCV 0 3		115181	0.009	0.007
425.00	427.00		0.3	0.0	1 24 ZCV 0 5		115182	0.006	0.006
427.00	429.00	Coarse-grained dark green heterogeneous chloritic epidote	0.3	0.0	1 32 ZCV 15 15		115183	0.013	0.012
429.00	431.00	Coarse-grained dark green heterogeneous chloritic	0.3	0.0	1 25 ZCV 15 8		115185	0.014	0.009
431.00	433.00	Coarse-grained dark green heterogeneous chloritic epidote	0.5	0.0	1 33 ZCV 10 1		115186	0.025	0.018
433.00	435.00	Coarse-grained dark green heterogeneous chloritic	1.0	0.0	1 16 ZCV 10 2	One 2cm wide massive pyrite vein.	115187	0.016	0.013
435.00	437.00		0.3	0.0	1 19 ZCV 0 2		115188	0.013	0.007
437.00	439.00		0.3	0.0	1 26 ZCV 3	Randomly orientated zeolite carbonate veinlets. Contains BFP cobbles and quartz-eyes.	115189	0.022	0.025
439.00	441.00		0.3	0.0	1 26 ZCV	Quartz-eyes.	115190	0.011	0.006
441.00	443.00		0.3	0.0	1 2 ZCV 10 3	Chloritized porphyry clasts.	115191	0.007	0.006
443.00	445.00		0.3	0.0	1 6 ZCV 10 4	Pink rhyolite clasts.	115192	0.009	0.005
445.00	447.00		0.3	0.0	1 14 ZCV 10 3	Grey porphyry clasts.	115193	0.014	0.009
<b>447</b>	<b>461.4</b>	<b>DACITE TOODOGGONE</b>							
447.00	449.00	Fine-grained dark green homogeneous chloritic	0.3	0.0	1 2 ZVN 0 15	F.g to aphanitic dacite flow cut by numerous thin zeolite veinlets. Fractures easily at vein contacts.	115194	0.01	0.009
449.00	451.00		0.3	0.0	1 7 ZVN 5	Veins are mostly zeolite only as opposed to zeolite / calcite veins seen further up the hole.	115195	0.001	-2
451.00	453.00		0.3	0.0	1 19 ZVN 5		115196	0.001	-2
453.00	455.00		0.3	0.0	1 22 ZVN 20		115197	-2	0.109
455.00	457.00		0.3	0.0	1 7 ZVN 20 15		115198	-2	0.154
457.00	459.00		0.3	0.0	1 28 ZVN 10 15		115199	-2	0.04

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
459.00	461.00	Fine-grained orange tan homogeneous chloritic	0.3 0.0	1	15 ZVN 20 20	Cut by numerous post mineral monzonite porphyry dykelets. The porphyry plus zeolite veining impart a orange colour to the rock.	115200	-2	0.019
461.00	461.40	Medium-grained orange tan homogeneous chloritic	0.3 0.0	1	8 ZVN 20 20	The contact is not clear due to the abundant zeolite veining.	115201	0.009	0.028
461.4	465.8	<b>MONZONITE POST-MINERAL DYKE</b>							
461.40	463.40	Medium-grained orange tan	1.0 0.0	0	18 ZVN 20 10	Crowded feldspar porphyry with v.f.g. disseminated pyrite.	115202	0.012	0.068
463.40	465.25		1.0 0.0	0	1		115203	0.006	0.044
465.25	465.80		0.0 0.0	0	0 CTC 30	Contact very sharp and marked by parallel zeolite veins in unit below. Sample includes a 20cm massive zeolite vein.	115204	0.002	0.031
465.8	470	<b>DACITE TOODOGGONE</b>							
465.80	468.00	Fine-grained dark green homogeneous chloritic	0.0 0.0	1	7 ZCV 30 2		115205	0.002	0.082
468.00	470.00		0.0 0.0	1	4 CTC 65		115206	0.006	0.027
470	566.5	<b>MONZONITE POST-MINERAL DYKE</b>							
470.00	472.00	Coarse-grained orange tan chloritic	0.0 0.0	0	15 ZCV 25 2	Anhedral plagioclase crowded porphyry. Chl. alt. on slips. Looks like a wide chill margin up to 482m.	115207	0.002	0.035
472.00	474.00	Medium-grained grey chloritic	0.0 0.0	0	17 ZCV 25 2		115208	0.002	0.011
474.00	476.00	Medium-grained grey black chloritic	0.0 0.0	0	4 ZCV 25 2		115209	0.001	-2
476.00	478.00		0.0 0.0	0	27 ZCV 25 1		115210	0.001	0.006
478.00	480.00		0.0 0.0	0	19 ZCV 25 1		115211	0.002	0.005
480.00	482.00		0.0 0.0	0	1 ZCV 25 1		115212	0.002	-2
482.00	484.00	Coarse-grained medium green sericitic	5.0 0.0	0	0 QZV 30 10	Qtz. /zeo. veins with v.c.g. to massive py. Host is mottled and near equigranular and only locally porphyritic.	115213	0.023	0.202
484.00	486.00		3.0 1.0	0	4 QZV 30 10	C.g. cpy. in fracture-fill irregular veinlets and grains aligned along fractures and qtz. / zeo. veins.	115214	0.239	0.728
486.00	488.00		2.0 0.0	0	0 QZV 30 15	Sample 115213 to 15218 all look alike except only 115214 has cpy.	115215	0.019	0.155
488.00	490.00		3.0 0.0	0	0 QZV 30 10		115216	0.025	0.299
490.00	492.00		5.0 0.0	0	5 QZV 30 30	Vuggy qtz. / zeo. veins as well as none vuggy veins.	115217	0.003	0.068
492.00	493.62		3.0 0.0	0	5 QZV 30 5		115218	0.001	0.037

## Hole Number: KN-02-46

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
493.62	496.00	Coarse-grained grey-green	0.0 0.0	0	14 ZCV 20	1	Dark coloured, crowded feldspar porphyry with abundant rounded feldspar phenocrysts as for 472m to 482m.	115219	0.024	0.185
496.00	498.00		0.1 0.0	0	13 ZCV	1		115220	0.022	0.075
498.00	500.00		0.0 0.0	0	15 ZCV	0		115221	0.004	0.759
500.00	502.00		0.0 0.0	0	15 ZCV	10	Cut by a narrow dyke of augite porphyritic syenite running parallel to the core axis.	115222	0.004	0.058
502.00	504.00	Coarse-grained grey	0.0 0.0	0	9 ZCV	25	4	115223	0.003	0.059
504.00	506.00	Coarse-grained orange grey	0.5 0.0	0	3 ZCV	25	2	115224	0.006	0.121
506.00	508.00	Coarse-grained orange grey potassic	0.5 0.0	0	1 ZCV	25	15	115225	0.004	0.058
508.00	510.00		0.5 0.0	0	0 ZCV	25	15	115226	0.007	0.043
510.00	512.00		0.5 0.0	0	10 ZCV	25	5	115227	0.014	0.706
512.00	514.00		1.0 0.0	0	2 PY	35	1	115228	0.017	0.079
514.00	516.00		0.1 0.0	0	6 QVN	35	0	115229	0.019	0.034
516.00	518.00		5.0 0.0	0	5 PY	35	5	115230	0.01	0.031
518.00	520.00		5.0 0.0	0	1 PY	40	5	115231	0.007	0.022
520.00	522.00		0.3 0.0	0	16 ZCV	30	3	115232	0.008	0.052
522.00	524.00		0.0 0.0	0	12 ZCV	30	3	115233	0.007	0.018
524.00	526.00		0.0 0.0	0	13 ZCV	30	3	115234	0.007	0.017
526.00	528.00		0.5 0.0	0	14 CTC	0		115236	0.008	0.044
528.00	530.00	Coarse-grained orange potassic	0.1 0.0	0	6 ZVN	10		115237	0.009	0.015
							This appears to be a slightly different phase of the post mineralization monzonite intrusions and is more typically logged as syenite in previous holes. It has a crowded feldspar porphyry to locally equigranular texture with conspicuous mafic (presumably augite) phenocrysts with a coarsely stubby habit. They comprise 1-2% of the rock locally. The orange colour is in part due to potassic alteration and in part due to the very abundant stock work of laumontite veins and some local laumontite flooding. calcite may be present but is less common than previously.			
530.00	532.00		0.0 0.0	0	4 ZVN	10		115238	0.009	0.024

**Hole Number: KN-02-46**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
532.00	534.00	Coarse-grained orange potassic	2.0 0.0	0	4 ZVN 10		115239	0.008	0.008
534.00	536.00		0.3 0.0	0	12 ZVN 10		115240	0.006	0.014
536.00	538.00		0.1 0.0	0	11 ZVN 10		115241	0.005	0.005
538.00	540.00		0.1 0.0	0	6 ZVN 10		115242	0.009	0.014
540.00	542.00		0.1 0.0	0	9 QVN 75 3	Several barren looking white quartz veins.	115243	0.005	0.01
542.00	544.00		0.1 0.0	0	2 ZVN 3		115244	0.005	0.014
544.00	546.00		0.1 0.0	0	5 ZVN 3		115245	0.003	0.023
546.00	548.00		0.3 0.0	0	9 ZCV 65 5		115246	0.003	0.052
548.00	550.00		2.0 0.0	0	8 PY 65 2	Massive pyrite veins.	115247	0.002	0.016
550.00	552.00		2.0 0.0	0	5 PY 65 2		115248	0.001	0.058
552.00	553.08		2.0 0.0	0	13 PY 65 2		115249	0.002	0.007
553.08	555.00	Coarse-grained orange grey chloritic	0.5 0.0	0	5 ZCV 65 10	Scattered massive pyrite veins and very weak chlorite alteration.	115250	0.002	0.185
555.00	557.00		1.0 0.0	0	11 ZCV 25 15	Scattered massive pyrite veins.	115251	0.013	0.167
557.00	559.00		0.1 0.0	0	14 ZCV 25 10		115252	0.008	0.01
559.00	561.00		0.1 0.0	0	7 ZCV 25 3		115253	0.008	0.025
561.00	563.00		0.1 0.0	0	12 ZCV 15 3		115254	0.007	0.014
563.00	565.00		0.5 0.0	0	3 ZCV 10 7		115255	0.006	0.006
565.00	566.50	Coarse-grained grey chloritic	0.0 0.0	0	13 CTC 70	Chilled looking <10% phenocrysts. Contact irregular at about 70 deg. to core axis.	115256	0.002	-2
566.5	570.58	<b>DACITE TOODOGGONE</b>							
566.50	568.00	Fine-grained dark green chloritic	0.5 0.0	0	11 CVN 5	V.f.g. to aphanitic matrix with occasional plagioclase and quartz phenocrysts. Abundant calcite in tension gash veinlets. Trace c.g. pyrite.	115257	0.002	-2
568.00	570.00		0.5 0.0	0	6 CVN 5	Occasional 10-15cm tan coloured very felsic looking patch.	115258	0.001	0.005
570.00	570.58		0.5 0.0	0	10 CVN 5	E.O.H.	115259	0.002	0.013
570.58		EOH							

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-47**

**Northing:** 16040.7    **Total Depth:** 543.43m  
**Easting:** 9659.2    **Azimuth:** 180°  
**Elevation:** 1690.5    **Dip:** -70°

**Geologist:** E. Ramsay  
**Logged Date:** 9/26/2002

Survey Depth	Azimuth	Dip	Comments:
91 m	185 °	-68 °	Mechanical
183 m	185 °	-66 °	Mechanical
274 m	181 °	-70 °	
366 m	338 °	-82 °	Mechanical
457 m	194 °	-71 °	
544 m	195 °	-61 °	Mechanical

# Koncess North 2002 Summary Drill Log



Hole Number: **KN-02-47**

From (m)	To (m)	Rock Type	Comments
0	2.74	CASING	Casing no recovery
2.74	83	BLADED FELDSPAR PORPHYRY	broken core, low recovery, bladed feldspar porphyry, dark greenish gray, weakly chloritized matrix and very weakly sericitized feldspar phenocrysts. 1-2% pyrite overall, both as dissemination and in veinlets/fracture filling. Iron oxides along cracks down to about 11.50m
83	89	BASALT	basaltic flow breccia, monogenic
89	102.56	BLADED FELDSPAR PORPHYRY	Weak biotization of matrix
102.56	102.94	QUARTZ MONZONITE	qtz - monzonite dykelet
102.94	104.17	BASALT	chloritized porphyritic basalt
104.17	109.25	QUARTZ MONZONITE	qtz - monzonite, porphyritic, showing 1-2 % mafic chloritized xenoliths
109.25	111.32	BLADED FELDSPAR PORPHYRY	
111.32	183.8	QUARTZ MONZONITE	gypsum + py veins. Porphyritic qtz - monzonite showing very weak chlorite/ sericite alt.
183.8	186.55	BLADED FELDSPAR PORPHYRY	
186.55	189.4	BASALT	Violet fluorite + anhydrite +gypsum veins. Highly altered flow, possible augite - phyric basalt
189.4	191.15	BLADED FELDSPAR PORPHYRY	
191.15	194.7	BASALT	Violet fluorite + anhydrite +gypsum veins. Highly altered flow, possible augite - phyric basalt

Hole Number:

**KN-02-47**

From (m)	To (m)	Rock Type	Comments
194.7	212	BLADED FELDSPAR PORPHYRY	
212	214.7	QUARTZ MONZONITE	
214.7	230	BLADED FELDSPAR PORPHYRY	
230	231.1	BASALT	Violet fluorite veins, fine grained, strong alteration obliterating primary textures
231.1	234.25	BLADED FELDSPAR PORPHYRY	Texture is clearly identifiable as BFP
234.25	237	BASALT	Violet fluorite veins, strongly altered. Alteration obliterates primary textures.
237	239	BASALT QUARTZ MONZONITE	Basaltic flow breccia w/ minor qtz - monzonite dykelets
239	241	BASALT	
241	245	POLYLITHIC TUFF	Oligomictic fragmental mafic rock. w/ fragments of augite - phyric basalt and BFP
245	543.46	BASALT	Augite - phyric basalt weakly chloritized, locally showing breccia textures



# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	2.74	<b>CASING</b>							
0.00	2.74					Casing no recovery	47	-2	-2
2.74	83	<b>BLADED FELDSPAR PORPHYRY</b>							
2.74	6.10	Fine-coarse grained green-grey chloritic sericitic	1.0	9		broken core, low recovery, bladed feldspar porphyry, dark greenish gray, weakly chloritized matrix and very weakly sericitized feldspar phenocrysts. 1-2% pyrite overall, both as dissemination and in veinlets/fracture filling. Iron oxides along cracks down to about 11.50m	114644	0.112	0.389
6.10	7.32		1.0	14			114645	0.105	0.223
7.32	8.84		1.0	39			114646	0.116	0.149
8.84	10.06		1.0	116	QVN 30 2	Quartz - py - carbonate vein @30 to c.a.	114647	0.132	0.276
10.06	12.19		2.0	14			114648	0.091	0.14
12.19	14.02		1.0	20			114649	0.114	0.204
14.02	15.24		2.0	2	QVN 20 3	qtz - carb - py vein @ 20 to c.a.	114650	0.252	0.687
15.24	16.46		3.0	0.1	14		114651	0.129	0.193
16.46	17.98		1.0	33			114652	0.084	0.15
17.98	18.90		1.0	24			114653	0.073	0.121
18.90	20.42		1.0	1	CVN 3	orange - pink carbonate veinlets	114654	0.12	0.257
20.42	21.34		2.0	18			114655	0.15	0.219
21.34	22.86		2.0	1	27 QVN 2	qtz - mt veins and veinlets	114656	0.214	0.393
22.86	24.38		2.0	13			114657	0.151	0.325
24.38	25.91		2.0	1	26 QVN 1	qtz - mt - py veinlet	114658	0.109	0.161
25.91	26.87		2.0	26			114659	0.122	0.187
26.87	28.35		3.0	3	PVN 40 2	py veins @ 40 to c.a.	114660	0.09	0.271
28.35	29.87		1.0	22			114661	0.09	0.158
29.87	30.85		1.0	1	37		114662	0.086	0.193

## Hole Number: KN-02-47

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
30.85	32.92	Fine-coarse grained grey sericitic	2.0	3	FLT	2 brittle fault (?) w/ gouge, core broken, orientation unknown, near 31.39m rock is more sericitized lighter coloured	114663	0.077	0.129
32.92	33.53	Fine-coarse grained green-grey chloritic sericitic	2.0	2			114664	0.145	0.276
33.53	35.05	Fine-coarse grained grey sericitic	3.0	0	FLT	55 2 brittle fault w/ gouge @55 to c.a., similar alteration to previous fault zone	114665	0.12	0.265
35.05	36.58	Fine-coarse grained grey chloritic sericitic	1.0	32			114666	0.108	0.182
36.58	38.10		1.0	27			114667	0.121	0.189
38.10	39.69	Fine-coarse grained green-grey chloritic sericitic	1.0	3			114669	0.149	0.23
39.69	41.15		3.0	0	PVN	3 py veins and qtz - py veinlets with weak local silicification	114670	0.164	0.275
41.15	42.67		1.0	1	5 QVN	qtz + py veins and weak silicification to wall rock, also qtz + mt veinlets	114671	0.284	0.521
42.67	44.20		1.0	9			114672	0.149	0.297
44.20	46.00		3.0	7	PVN	45 2 py veins	114673	0.073	0.122
46.00	48.00		1.0	2	60		114674	0.109	0.177
48.00	50.00		1.0	0			114675	0.137	0.267
50.00	52.00		2.0	3	PVN	2	114676	0.121	0.27
52.00	53.34		1.0	5		downsized from HQ - NQ @ 53.34 m 1 - 2 % translucent gypsum veins	114677	0.14	0.269
53.34	55.50		1.0	1	14		114678	0.152	0.293
55.50	57.00		1.0	2	18		114679	0.151	0.152
57.00	59.00		1.0	1	53		114680	0.126	0.174
59.00	61.00		2.0	3			114681	0.195	0.472
61.00	63.00		1.0	1	17		114682	0.183	0.322
63.00	65.00		2.0	2	22		114683	0.183	0.286
65.00	67.00		0.5	3	22		114684	0.113	0.207
67.00	69.00		0.5	2	32		114685	0.09	0.197
69.00	71.00		0.5	1	3		114686	0.153	0.283
71.00	73.00		2.0	1	36		114687	0.131	0.283

## Hole Number: KN-02-47

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
73.00	75.00	Fine-coarse grained green-grey chloritic sericitic	0.5	1	33		114688	0.133	0.318
75.00	77.00		1.0	2	42		114689	0.201	0.407
77.00	79.00		2.0	1	14		114690	0.198	0.436
79.00	81.00		1.0	1	19		114691	0.19	0.34
81.00	83.00		2.0		6		114692	0.16	0.302
<b>83</b>	<b>89</b>	<b>BASALT</b>							
83.00	85.00	Fine-coarse grained green-grey flow brecciated sericitic chloritic	4.0		2 PVN	3 basaltic flow breccia, monogenic	114693	0.203	0.38
85.00	87.00	Fine-medium-grained green-grey sericitic chloritic	1.0	1	20		114695	0.147	0.215
87.00	89.00	Fine-coarse grained green-grey sericitic chloritic	0.1	1	30	Rare mafic fragments floating in porphyritic	114696	0.153	0.261
<b>89</b>	<b>102.56</b>	<b>BLADED FELDSPAR PORPHYRY</b>							
89.00	91.00	Fine-coarse grained green-grey sericitic chloritic	0.5	1	7	Weak biotization of matrix	114697	0.206	0.355
91.00	93.00		0.5		2		114698	0.143	0.303
93.00	95.00		3.0		0 PVN	3	114699	0.113	0.235
95.00	97.00		5.0	1	11 PVN	5 Weak biotization of matrix	114700	0.085	0.104
97.00	99.00	Fine-coarse grained green-grey chloritic sericitic	1.0	1	20		114701	0.115	0.178
99.00	101.00		5.0		32 PVN	5	114702	0.088	0.173
101.00	102.56	Fine-coarse grained green-grey sericitic silicic	2.0	1	1	101.80 - 102.56 strong sericite - qtz - py alteration, rock is fractured w/ clay infill (fault)	114703	0.081	0.135
<b>102.56</b>	<b>102.94</b>	<b>QUARTZ MONZONITE</b>							
102.56	102.94	Medium-fine-grained green-grey chloritic	1.0	1	0 CTC	45 qtz - monzonite dykelet	114704	0.253	0.396
<b>102.94</b>	<b>104.17</b>	<b>BASALT</b>							
102.94	104.17	Fine-coarse grained green-grey chloritic sericitic	0.5		0	chloritized porphyritic basalt	114705	0.226	0.427
<b>104.17</b>	<b>109.25</b>	<b>QUARTZ MONZONITE</b>							
104.17	105.00	Medium-coarse-grained green-grey chloritic sericitic	1.0		0	qtz - monzonite, porphyritic, showing 1-2 % mafic chloritized xenoliths	114706	0.149	0.249

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
105.00	107.00	Medium-fine-grained green-grey chloritic sericitic	2.0	0			114707	0.129	0.232
107.00	109.25		2.0	1			114708	0.141	0.23
109.25	111.32	<b>BLADED FELDSPAR PORPHYRY</b>							
109.25	111.32	Fine-coarse grained green-grey chloritic sericitic	2.0	1			114709	0.144	0.242
111.32	183.8	<b>QUARTZ MONZONITE</b>							
111.32	113.00	Medium-fine-grained green-grey chloritic sericitic	1.0	1	GVN	gypsum + py veins. Porphyritic qtz - monzonite showing very weak chlorite/ sericite alt.	114710	0.119	0.211
113.00	115.00		0.5	10			114711	0.097	0.161
115.00	117.00		1.0	1			114712	0.099	0.19
117.00	119.00		1.0	0			114713	0.067	0.115
119.00	121.00		1.0	1			114714	0.101	0.211
121.00	123.00		1.0	1			114715	0.119	0.232
123.00	125.00		0.1	3			114716	0.135	0.355
125.00	127.00		1.0	42			114717	0.114	0.207
127.00	129.00		1.0	5			114718	0.116	0.195
129.00	131.00	Medium-fine-grained green-grey chloritic	1.0	0			114719	0.187	0.379
131.00	133.00	Medium-fine-grained green-grey chloritic sericitic	0.5	3			114721	0.159	0.331
133.00	135.00		1.0	1	19		114722	0.075	0.147
135.00	137.00		1.0	0	3		114723	0.06	0.059
137.00	139.00		5.0	0	PVN	py - qtz veins, sub - parallel to c.a.	114724	0.092	0.202
139.00	141.00	Medium-fine-grained green-grey sericitic chloritic	3.0	5	PVN	5 pyrite +/- qtz veins @ low angle to core axis	114725	0.166	0.301
141.00	143.00	Medium-fine-grained green-grey chloritic sericitic	1.0	2			114726	0.141	0.279
143.00	145.00	Medium-fine-grained green-grey sericitic chloritic	3.0	0	PVN	20 5 py - qtz vein	114727	0.325	0.779
145.00	147.00	Medium-fine-grained green-grey chloritic sericitic	3.0	3	PVN	5 py - qtz veins	114728	0.129	0.217
147.00	149.00		3.0	2	PVN	3 py veinlets	114729	0.096	0.153

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample	Cu %	Au ppm
149.00	151.00	Medium-fine-grained green-grey chloritic sericitic	1.0		3 PVN	1 py veinlets	114730	0.095	0.15
151.00	153.00	Medium-fine-grained green-grey sericitic chloritic	2.0		2 PVN	2 py +/- qtz veinlets	114731	0.034	0.031
153.00	155.00	Medium-fine-grained green-grey chloritic sericitic	0.5		9	py - qtz veinlets	114732	0.107	0.167
155.00	157.00		0.5		6	trace molybdenite	114733	0.12	0.183
157.00	159.00		0.1	2	4		114734	0.101	0.179
159.00	161.00		1.0		3		114735	0.13	0.216
161.00	163.00		1.0		1		114736	0.118	0.19
163.00	165.00	Medium-fine-grained green-grey sericitic chloritic	2.0		4 PVN	2 py veinlets	114737	0.117	0.198
165.00	167.00		1.0		0		114738	0.153	0.321
167.00	169.00		2.0		5 PVN	2 py veinlets	114739	0.108	0.187
169.00	171.00	Medium-fine-grained green-grey chloritic sericitic	0.1		18		114740	0.101	0.173
171.00	173.00		0.1	0.1	17		114741	0.125	0.218
173.00	175.00		0.1		9		114742	0.116	0.203
175.00	177.00		1.0		23		114743	0.093	0.141
177.00	179.00		1.5		20	Large mafic xenolith, probably basalt	114744	0.126	0.155
179.00	181.00		1.0		34		114745	0.123	0.188
181.00	183.00		2.0		2		114747	0.146	0.331
183.00	183.80		0.5		40		114748	0.084	0.102
<b>183.8</b>	<b>186.55</b>	<b>BLADED FELDSPAR PORPHYRY</b>							
183.80	185.00	Fine-coarse grained green-grey chloritic sericitic	0.5		19		114749	0.081	0.195
185.00	186.55		0.5		3		114750	0.139	0.257
<b>186.55</b>	<b>189.4</b>	<b>BASALT</b>							
186.55	188.00	Fine-medium-grained light grey sericitic anhydrite	2.0		1 FVN	25 4 Violet fluorite + anhydrite +gypsum veins. Highly altered flow, possible augite - phyrlic basalt	114751	0.098	0.237
188.00	189.40	Fine-medium-grained light grey chloritic sericitic	2.0	0.1	2 5 FVN	45 10 Violet fluorite + anhydrite +gypsum. Mixed coarse grained py - mt.	114752	0.131	0.184

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Mt	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
189.4	191.15	<b>BLADED FELDSPAR PORPHYRY</b>								
189.40	191.15	Fine-coarse grained green-grey chloritic sericitic	1.0	0.1	1	50	114753	0.14	0.321	
191.15	194.7	<b>BASALT</b>								
191.15	193.00	Fine-medium-grained light grey sericitic anhydrite	1.0	0.1	1	68 FVN	2	114754	0.132	0.256
193.00	194.70		0.5		24	FVN	2	114755	0.11	0.181
194.7	212	<b>BLADED FELDSPAR PORPHYRY</b>								
194.70	196.00	Fine-coarse grained green-grey chloritic sericitic	0.5			8	114756	0.142	0.372	
196.00	198.00		1.0			3 FVN	1	114757	0.118	0.206
198.00	200.00		1.0	0.1		1 FVN	1	114758	0.118	0.189
200.00	202.00		0.5	0.1		4	114759	0.119	0.259	
202.00	204.00		0.5			14	114760	0.175	0.28	
204.00	206.00		0.5	0.1		6	114761	0.077	0.115	
206.00	208.00		0.5			22	114762	0.09	0.174	
208.00	209.80		0.5			13	114763	0.097	0.158	
209.80	212.00		0.1			1	51	114764	0.095	0.152
212	214.7	<b>QUARTZ MONZONITE</b>								
212.00	214.00	Medium-fine-grained green-grey chloritic sericitic	0.1	0.1	1	18	114765	0.11	0.219	
214.00	214.70		0.1			3	114766	0.075	0.12	
214.7	230	<b>BLADED FELDSPAR PORPHYRY</b>								
214.70	216.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	1.0			2	114767	0.115	0.232	
216.00	218.00		1.0			5	114768	0.127	0.307	
218.00	220.00		2.0			16	114769	0.087	0.122	
220.00	222.00		1.0			7	114770	0.074	0.084	
222.00	224.00		1.0			8	114771	0.11	0.219	
224.00	226.00		1.0	0.1		4 AVN	20 2	114773	0.112	0.178
226.00	228.00		0.5			8	114774	0.095	0.22	

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
	228.00	230.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	0.5	3		114775	0.081	0.115
230	231.1	<b>BASALT</b>							
	230.00	231.10	Fine-coarse grained light grey sericitic anhydrite	1.0	5 FVN	10 Violet fluorite veins, fine grained, strong alteration obliterating primary textures	114776	0.052	0.054
231.1	234.25	<b>BLADED FELDSPAR PORPHYRY</b>							
	231.10	233.00	Fine-coarse grained green-grey chloritic sericitic	1.0 0.1	4	Texture is clearly identifiable as BFP	114777	0.057	0.128
	233.00	234.25		0.5 0.1	1 10		114778	0.08	0.131
234.25	237	<b>BASALT</b>							
	234.25	235.70	Fine-coarse grained light grey flow brecciated sericitic anhydrite	1.0	1 42 FVN	3 Violet fluorite veins, strongly altered. Alteration obliterates primary textures.	114779	0.11	0.177
	235.70	237.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	1.0	6 FVN	4	114780	0.159	0.314
237	239	<b>BASALT QUARTZ MONZONITE</b>							
	237.00	239.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	1.0 0.1	1 34	Basaltic flow breccia w/ minor qtz - monzonite dykelets	114781	0.092	0.183
239	241	<b>BASALT</b>							
	239.00	241.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	3.0 0.1	2		114782	0.156	0.296
241	245	<b>POLYLITHIC TUFF</b>							
	241.00	243.00	Fine-coarse grained green-grey fragmental chloritic sericitic	2.0 0.1	0 14	Oligomictic fragmental mafic rock. w/ fragments of augite - phyric basalt and BFP	114783	0.142	0.292
	243.00	245.00		3.0 0.1	7		114784	0.103	0.227
245	543.46	<b>BASALT</b>							
	245.00	247.00	Fine-medium-grained green-grey chloritic	3.0	56	Augite - phyric basalt weakly chloritized, locally showing breccia textures	114785	0.183	0.421
	247.00	249.00		3.0	7		114786	0.12	0.14
	249.00	251.00	Fine-coarse grained green-grey flow brecciated chloritic	2.0	9		114787	0.073	0.083
	251.00	253.00	Fine-coarse grained green-grey flow brecciated chloritic sericitic	2.0	2		114788	0.079	0.088
	253.00	255.00	Fine-medium-grained green-grey chloritic sericitic	2.0	1		114789	0.069	0.083

**Node Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
255.00	257.00	Fine-medium-grained green-grey chloritic	5.0	2	AVN	3	Violet anhydrite / gypsum veins	114790	0.115	0.165
257.00	259.00	Fine-medium-grained green-grey chloritic sericitic	2.0	5	AVN	5		114791	0.036	0.06
259.00	261.00		2.0	5				114792	0.046	0.062
261.00	263.00	Fine-medium-grained green-grey chloritic	2.0	19				114793	0.039	0.061
263.00	264.90		3.0	18				114794	0.047	0.06
264.90	267.00	Fine-coarse grained green-grey flow brecciated chloritic	2.0	2				114795	0.046	0.075
267.00	269.00		1.0	21				114796	0.054	0.074
269.00	271.00		2.0	5				114797	0.038	0.063
271.00	273.00	Fine-medium-grained green-grey chloritic	1.0	14				114799	0.057	0.077
273.00	275.00		2.0	21	FVN	2		114800	0.045	0.074
275.00	277.00		2.0	15	FVN	4		114801	0.091	0.225
277.00	279.00		1.0	24				114802	0.074	0.092
279.00	281.00		4.0	22				114803	0.04	0.068
281.00	283.00		3.0	23				114804	0.072	0.078
283.00	285.00		5.0	10				114805	0.058	0.075
285.00	287.00		3.0	11				114806	0.075	0.087
287.00	289.00		5.0	18	FVN	30	1	114807	0.099	0.128
289.00	291.00		4.0	18	FVN	30	1	114808	0.074	0.081
291.00	293.00	Fine-medium-grained green-grey flow brecciated chloritic	4.0	4			Flow - breccia texture, formed by clasts of aphanitic grained basalt	114809	0.061	0.078
293.00	295.00		3.0	10				114810	0.047	0.059
295.00	297.00		3.0	16				114811	0.047	0.05
297.00	299.00	Fine-medium-grained green-grey chloritic	3.0	11	PVN	2	py + qtz + anhydrite vein. Typical augite - phyric basalt	114812	0.054	0.053
299.00	301.00		3.0	5	PVN	30	1	114813	0.05	0.059
301.00	303.00		3.0	8	PVN	2	Augite phenocrysts locally so abundant to make rock a basaltic porphyry (>30% phenocrysts)	114814	0.066	0.073



**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
303.00	305.00	Fine-medium-grained green-grey chloritic sericitic	2.0	25			114815	0.072	0.068
305.00	307.00		2.0	3	4 AVN 50 1	Anhydrite - tourmaline veinlet, 3% massive mt near 306.30m	114816	0.067	0.064
307.00	309.00	Fine-medium-grained green-grey chloritic	2.0	1	6 FVN 75 3	Violet fluorite veinlets	114817	0.057	0.055
309.00	311.00		2.0	6			114818	0.06	0.057
311.00	313.00		2.0	4			114819	0.05	0.056
313.00	315.00		1.0	1	CVN 10	Pink carbonate veinlets	114820	0.042	0.055
315.00	317.00		3.0	5			114821	0.048	0.094
317.00	319.00		3.0	3			114822	0.059	0.088
319.00	321.00		1.0	1	12		114823	0.048	0.059
321.00	323.00		1.5	0	7		114825	0.05	0.049
323.00	325.00		1.5	1	13		114826	0.072	0.066
325.00	327.00		1.0	0	11 CVN 45 3	Pink carbonate veins	114827	0.05	0.059
327.00	329.00		0.5	1	35		114828	0.043	0.052
329.00	331.00		1.0	0	11		114829	0.068	0.135
331.00	333.00		0.5	0	15 FVN 30 1		114830	0.063	0.071
333.00	335.00		1.0	3			114831	0.051	0.057
335.00	337.00		3.0	1	44		114832	0.069	0.061
337.00	339.00		3.0	0	9		114833	0.078	0.076
339.00	341.00		0.5	1	20		114834	0.069	0.066
341.00	343.00		2.0	1	25 QVN 45 4	qtz -anh - veins	114835	0.07	0.078
343.00	345.00		0.5	0	14		114836	0.068	0.09
345.00	347.00		2.0	1	17		114837	0.068	0.08
347.00	349.00		2.0	1	17		114838	0.06	0.097
349.00	351.00		0.5	9	CVN 5	Pink carbonate+zeolite veins	114839	0.082	0.131
351.00	353.00		0.5	0	18 CVN 5		114840	0.076	0.08
353.00	355.00		1.0	1	21 CVN 2		114841	0.083	0.102
355.00	357.00		2.0	1	10		114842	0.081	0.114

**Job Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
357.00	359.00	Fine-medium-grained green-grey chloritic	3.0	1	10		114843	0.111	0.145
359.00	361.00		1.0	1	14		114844	0.072	0.078
361.00	363.00		1.0	0	7		114845	0.07	0.075
363.00	365.00		1.5	0	7		114846	0.079	0.074
365.00	367.00		2.0		3 AVN	2 Violet anhydrite	114847	0.107	0.105
367.00	369.00		1.0		4	Autobrecciated feldspar - phyric basalt flow	114848	0.064	0.073
369.00	371.00	Fine-coarse grained green-grey flow brecciated chloritic	0.5		8		114849	0.063	0.073
371.00	373.00		1.0		4		114851	0.045	0.058
373.00	375.00		1.0		3 QVN	75 4 quartz veins w/ traces of molybdenite along contacts	114852	0.044	0.061
375.00	377.00	Fine-medium-grained green-grey chloritic	1.0		7		114853	0.042	0.05
377.00	379.00	Fine-coarse grained green-grey brecciated chloritic	1.0	0	19		114854	0.059	0.068
379.00	381.00		1.0		3		114855	0.044	0.052
381.00	383.00		1.0		5		114856	0.057	0.075
383.00	385.00	Fine-medium-grained green-grey chloritic	1.0		10	porphyritic basalt showing augite and/or white feldspar phenocrysts, locally amygdular	114857	0.048	0.063
385.00	387.00		2.0		10		114858	0.088	0.093
387.00	389.00		1.0		9		114859	0.08	0.1
389.00	391.00		1.0		3		114860	0.068	0.117
391.00	393.00		1.0		8		114861	0.05	0.1
393.00	395.00		2.0		17		114862	0.065	0.1
395.00	397.00		2.0		5		114863	0.045	0.07
397.00	399.00		1.0		12		114864	0.032	0.054
399.00	401.00		1.0	0	18		114865	0.05	0.082
401.00	403.00		2.0	0	18		114866	0.048	0.098
403.00	405.00		2.0	1	29		114867	0.067	0.146
405.00	407.00		2.0		0		114868	0.049	0.097
407.00	409.00		2.0	0	10		114869	0.067	0.123

## Hole Number: KN-02-47

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
409.00	411.00	Fine-medium-grained green-grey chloritic	2.0	0			114870	0.063	0.075
411.00	413.00		1.5	5			114871	0.047	0.051
413.00	415.00		0.5	10			114872	0.035	0.04
415.00	417.00		0.5	0 22			114873	0.028	0.031
417.00	419.00		1.0	0 35			114874	0.046	0.051
419.00	421.00		0.5	2			114875	0.047	0.061
421.00	423.00		0.5	0 16			114877	0.065	0.065
423.00	425.00		0.5	8			114878	0.035	0.042
425.00	427.00		1.0	0 47			114879	0.058	0.075
427.00	429.00		3.0	0 26		augite - phenocryst percentage exceeds 30% ->sub volcanic porphyry	114880	0.067	0.083
429.00	431.00		2.0	0 20			114881	0.056	0.08
431.00	433.00		2.0	0 15			114882	0.046	0.056
433.00	435.00		2.0	1 18			114883	0.025	0.032
435.00	437.00		0.5	6			114884	0.033	0.044
437.00	439.00		0.5	0 12			114885	0.025	0.036
439.00	441.00		1.0	0 13			114886	0.045	0.058
441.00	443.00		0.5	3			114887	0.036	0.033
443.00	445.00		0.5	9			114888	0.032	0.038
445.00	447.00		2.0	6			114889	0.046	0.052
447.00	449.00		0.5	3			114890	0.036	0.044
449.00	451.00		0.5	16			114891	0.035	0.038
451.00	453.00		0.5	7			114892	0.047	0.06
453.00	455.00		0.5	9 CVN	10	10 % pink carbonate - zeolite veins	114893	0.044	0.072
455.00	457.00		1.0	29 CVN	3	3 % pink carbonate - zeolite veins	114894	0.064	0.063
457.00	459.00		0.5	18			114895	0.05	0.049
459.00	461.00		0.5	8			114896	0.066	0.063
461.00	463.00		0.5	19			114897	0.044	0.042
463.00	465.00		1.5	49			114898	0.075	0.06

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
465.00	467.00	Fine-medium-grained green-grey chloritic	2.0	2			114900	0.081	0.061
467.00	469.00		1.0	32		Bad brass smear from bit	114900	0.059	0.055
469.00	471.00		0.5	12			114901	0.061	0.064
471.00	473.00		4.0	12			114903	0.053	0.057
473.00	475.00		2.0	52			114904	0.043	0.046
475.00	477.00		1.0	12			114905	0.046	0.039
477.00	479.00		1.0	7			114906	0.061	0.064
479.00	481.00		0.5	12			114907	0.051	0.055
481.00	483.00		0.5	5			114908	0.05	0.066
483.00	485.00		2.0	26			114909	0.072	0.098
485.00	487.00		1.5	19			114910	0.069	0.078
487.00	489.00		2.0	26			114911	0.079	0.091
489.00	491.00		2.0	18			114912	0.056	0.075
491.00	493.00		3.0	28			114913	0.052	0.085
493.00	495.00		0.5	7			114914	0.047	0.058
495.00	497.00		1.0	42			114915	0.047	0.039
497.00	499.00		0.5	12			114916	0.06	0.051
499.00	501.00		1.0	20			114917	0.087	0.075
501.00	503.00		0.5	41			114918	0.041	0.043
503.00	505.00	Fine-grained green-grey chloritic	0.5	13			114919	0.067	0.065
505.00	507.00	Fine-grained green-grey massive chloritic	1.0	17			114920	0.113	0.215
507.00	509.00	Fine-medium-grained green-grey chloritic	1.0	8 CVN	4	pink carbonate - zeolite ( 4 % )	114921	0.073	0.062
509.00	511.00	Fine-grained green-grey chloritic	1.0	7			114922	0.092	0.095
511.00	511.75	Fine-grained orange grey sheared chloritic sericitic	1.0	20			114923	0.111	0.246
511.75	512.25	Fine-grained green-grey chloritic	0.1	2			114924	0.064	0.128
512.25	513.85	Fine-grained brown oxidized	0.5	0			114925	0.085	0.075

**Hole Number: KN-02-47**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
513.85	516.00	Fine-coarse grained green-grey brecciated chloritic sericitic	0.5	1			114926	0.117	0.279
516.00	518.00	Fine-coarse grained orange grey brecciated sericitic oxidized	0.5	7			114927	0.076	0.142
518.00	519.65	Fine-coarse grained green-grey brecciated sericitic oxidized	0.5	5			114929	0.097	0.202
519.65	521.00	Fine-grained green-grey massive chloritic	2.0	0	16		114930	0.06	0.062
521.00	523.00		2.0	9			114931	0.066	0.065
523.00	525.00		2.0	0	6		114932	0.092	0.078
525.00	527.00		0.5	0	4		114933	0.083	0.072
527.00	529.00		3.0	1	23		114934	0.076	0.073
529.00	531.00		2.0	0	19		114935	0.051	0.055
531.00	533.00		2.0	0	18		114936	0.066	0.061
533.00	535.00		1.5	3			114937	0.066	0.059
535.00	537.00		0.5	0	5		114938	0.091	0.077
537.00	539.00		1.0	5			114939	0.061	0.063
539.00	541.00		1.0	0			114940	0.07	0.072
541.00	543.46	Fine-medium-grained green-grey chloritic	2.0	0	22	EOH - 543.46m	114941	0.08	0.064

543.46 EOH

# Kemess North 2002 - Diamond Drill Log



Northgate Exploration Ltd

*Hole Number: KN-02-48*

<b>Northing:</b> 15087.7	<b>Total Depth:</b> 605.64m
<b>Easting:</b> 8962.28	<b>Azimuth:</b> 0°
<b>Elevation:</b> 1875.3	<b>Dip:</b> -90°

<b>Geologist:</b> B.Mercer
<b>Logged Date:</b> 9/29/2002

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
46 m	181 °	-81 °	Mechanical
137 m	0 °	-87 °	
229 m	111 °	-86 °	Mech/mag
320 m	0 °	-88 °	
412 m	194 °	-82 °	Mechanical
503 m	233 °	-69 °	Mech/mag
595 m	238 °	-76 °	Mech/mag

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-48**

From (m)	To (m)	Rock Type	Comments
0	2.44	CASING	No recovery
2.44	23.35	BASALT HETEROLITHIC BRECCIA	Oligolithic volcanic bx. Fragments up to boulder size comprising several different textures of mafic volcanic flows including augite porphyritic basalt, aphanitic basalt and BFP. Epidote alteration is common and is found in matrix and lithic fragments. Calcite filled fractures.
23.35	27.75	BASALT FLOW BRECCIA	C.g. py in-filling flow-top breccia. Slightly bleached looking and monolithic. Epidote appears to be predominantly in-filling breccia as well.
27.75	290.75	BASALT FLOW	F.g. to aphanitic, dark green flows. Patchy to locally abundant epidote. C.g irregular blebs of py. throughout.
290.75	299.35	BASALT TUFF	C.g fragment supported tuff to tuff breccia. Strong epidote alteration.
299.35	313.34	MONZONITE	V.c.g monzonite porphyry cut by sparse qtz veins and very thin pink laumontite +/- carbonate veins. Mt in qtz veins and on slips. 50 feldspar phenocrysts, 15% mafic minerals and 35% anhedral matrix.
313.34	326.4	BASALT FLOW	Qtz Mt veins and qtz flooding locally. V.f.g. to locally aphanitic flows. Cpy. at several vein margins.
326.4	340.73	MONZONITE	C.g feldspar porphyritic monzonite cut by Mt. rich qtz. veins. F.g. cpy. in fractures in qtz. veins. V.f.g. epidote.
340.73	360.2	BASALT FLOW	Core breaks along numerous thin QCV's. Cpy. associated with c.g. to semi-massive py stringers. V.f.g actinolite / hornblende alteration.
360.2	366.96	BASALT	C.g. breccia of light coloured basalt in dark green chloritic matrix.
366.96	410.85	BASALT FLOW	
410.85	411.41	QUARTZ VEIN	Qtz. flooded zone cut by hairline thin zeolite veinlets.
411.41	448.97	BASALT FLOW	Zeolite flooded sericite rich horizon.

Hole Number:

**KN-02-48**

From (m)	To (m)	Rock Type	Comments
448.97	449.27	MONZONITE	Feldspar porphyry dyke with 3-8% feldspar in aphanitic matrix.
449.27	457.95	BASALT FLOW	
457.95	459.39	BASALT	Possible dyke. looks like typical augite porphyritic basalt but has very sharp contacts. Note that the ZCV's are refracted in this unit. The are at 70 deg. t.c.a. as opposed to 0-30 deg's. on either side of here.
459.39	505.53	BASALT FLOW	Zone of strong zeolite carbonate veining. About 50% of them are reactive with HCl. Sporadic areas with augite pseudomorphs. Pronounce chlorite lined vuggy zone. Vugs are between spider web of micro veinlets of zeolite.
505.53	506.15	BASALT QUARTZ VEIN ZONE	massive qtz vein cut by numerous fractures. Contains about 1-2% fracture controlled py. vein at 30 deg. to core axis.
506.15	508.67	BASALT FLOW	
508.67	509.03	BASALT QUARTZ VEIN ZONE	Similar to 115556 with c.g and semi-massive py stringers and y in upper selvage of qtz. vein at 30 deg to core axis.
509.03	512	BASALT FLOW	Aphanitic basalt flow with Mt in fractures and in qtz. veins.
512	513.05	BASALT FAULT ZONE	40% lost core. Qtz. with massive magnetite veins in chlorite.
513.05	525	BASALT FLOW	
525	525.97	BASALT	Augite porphyry dyke like 116526. Lower contact broken and lost.
525.97	577.86	BASALT FLOW	
577.86	578.21	BASALT QUARTZ VEIN ZONE	Very strong massive clay alteration at upper contact of massive qtz. vein. Both contacts broken and lost.
578.21	580.38	BASALT FLOW	Very augite porphyritic. Moderately sericitic with thin massive Mt stringers.
580.38	582.43	MONZONITE	Weak clay alteration of K-spar phenocrysts. Cut by qtz/Mt veins. sample includes 25cm q.v.
582.43	584.82	BASALT FLOW	



Hole Number: **KN-02-48**

From (m)	To (m)	Rock Type	Comments
584.82	585.29	BASALT QUARTZ VEIN ZONE	Lower contact at 30 deg. t.c.a. Massive py. and massive Mt. stringers in q.v.
585.29	605.64	BASALT FLOW	

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm			
0	2.44	<b>CASING</b>										
0.00	2.44					No recovery	48	-2	-2			
2.44	23.35	<b>BASALT HETEROLITHIC BRECCIA</b>										
2.44	4.00	Coarse-grained dark green chloritic epidote	0.0	0.0	0	19 CVN	5	0	Oligolithic volcanic bx. Fragments up to boulder size comprising several different textures of mafic volcanic flows including augite porphyritic basalt, aphanitic basalt and BFP. Epidote alteration is common and is found in matrix and lithic fragments. Calcite filled fractures.	115261	0.025	0.007
4.00	6.00		0.0	0.0	0	6 CVN	5	1		115262	0.012	-2
6.00	8.00		0.0	0.0	0	19 CVN	5	1		115263	0.015	-2
8.00	10.00		0.0	0.0	0	4 CVN	5	10		115264	0.005	-2
10.00	12.00		0.0	0.0	0	4 CVN	5	10	HQ ends.	115265	0.003	-2
12.00	14.00		0.0	0.0	0	5 CVN	5	0	NQ starts.	115266	-2	-2
14.00	16.00		0.0	0.0	0	4 CVN	20	0		115267	0.005	0.012
16.00	18.00		0.0	0.0	0	4 CVN	15	0		115268	0.009	0.009
18.00	20.00		0.0	0.0	0	10				115269	0.004	-2
20.00	22.00		0.0	0.0	0	39				115270	0.026	0.005
22.00	23.35		0.0	0.0	0	2 CON	80			115271	0.012	0.015
23.35	27.75	<b>BASALT FLOW BRECCIA</b>										
23.35	25.00	Coarse-grained dark green chloritic epidote	7.0	0.0	0	3 CVN	5	0	C.g. py in-filling flow-top breccia. Slightly bleached looking and monolithic. Epidote appears to be predominantly in-filling breccia as well.	115272	0.038	0.065
25.00	27.00		7.0	0.0	0	8 CVN	5	0		115273	0.039	0.076
27.00	27.75		7.0	0.0	0	0 CVN	5	0		115274	0.042	0.11
27.75	290.75	<b>BASALT FLOW</b>										
27.75	29.00	Fine-grained dark green homogeneous chloritic epidote	5.0	0.0	0	7 CVN	35	0	F.g. to aphanitic, dark green flows. Patchy to locally abundant epidote. C.g irregular blebs of py. throughout.	115275	0.033	0.119
29.00	31.00		5.0	0.0	0	22 CVN	35	0		115276	0.057	0.102

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
31.00	33.00	Fine-grained dark green homogeneous chloritic epidote	5.0 0.0	0	21 CVN 35 0		115277	0.061	0.184
33.00	35.00		15.0 0.0	0	0 CVN 45 0		115278	0.043	0.201
35.00	37.00		15.0 0.0	0	22 CVN 10 2		115279	0.05	0.295
37.00	39.00		5.0 0.0	0	0 CVN 10 2		115280	0.037	0.169
39.00	41.00		10.0 0.0	0	0 CVN 5 3		115281	0.027	0.138
41.00	43.00		10.0 0.0	0	0 CVN 5 10	Abundant fracture-fill calcite veins and over 20% epidote.	115282	0.046	0.126
43.00	45.00		3.0 0.0	0	0 CVN 10 3		115283	0.018	0.111
45.00	45.42		10.0 0.0	0	0 CVN 0 1		115284	0.008	0.364
45.42	47.00	Fine-grained light green homogeneous chloritic epidote	3.0 0.0	0	0 CVN 40 0	The lithological change from BAS to IVO is made solely on the basis of colour change. In all probability these rocks are likely basaltic andesite.	115285	0.041	0.189
47.00	49.00		10.0 0.0	0	15 CVN 40 3		115287	0.073	0.295
49.00	51.00		5.0 0.0	0	1 CVN 40 2		115288	0.053	0.233
51.00	53.00		5.0 0.0	0	0 PY 45 3	Note: there is a change in the habit of py. mineralization. Dominated by py veins and py/epi veins as opposed to irregularly disseminated blebs as above.	115289	0.058	0.244
53.00	55.00		4.0 0.0	0	1 PY 35 3		115290	0.022	0.106
55.00	57.00		2.0 0.0	0	0 PY 10 1		115291	0.03	0.154
57.00	59.00		3.0 0.0	0	0 PY 30 2	Includes approximately 50cm of flow-top breccia in centre of sample.	115292	0.033	0.107
59.00	61.00		3.0 0.0	0	0 CVN 25 5	Py. in calcite veinlets. C.g py. in host rock. Epidote in veins as opposed to wall rock.	115293	0.027	0.084
61.00	63.00		1.0 0.0	0	0 CVN 40 2		115294	0.036	0.111
63.00	64.60		1.0 0.0	0	0 CVN 40 2		115295	0.058	0.085
64.60	66.00	Fine-grained dark green homogeneous chloritic epidote	2.0 0.0	0	1 CVN 40 2		115296	0.023	0.044
66.00	68.00		1.0 0.0	0	1 CVN 40 2	Irregular blebs of Py.	115297	0.017	0.041
68.00	70.00		1.0 0.0	0	0 CVN 40 2		115298	0.03	0.07
70.00	71.00		2.0 0.0	0	3 PY 35 1	Py. veins and py. rich calcite veins	115299	0.017	0.262
71.00	73.00	Fine-grained light green mottled chloritic epidote	5.0 0.0	0	0 PY 25 2		115300	0.065	0.175
73.00	73.60		3.0 0.0	0	1 CVN 25 10	C. g py. in selvages of calcite veins.	115301	0.061	0.252

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
73.60	75.00	Fine-grained dark green homogeneous chloritic epidote	2.0 0.0	0	0 CVN 40 2		115302	0.059	0.094
75.00	77.00		2.0 0.0	0	0 CVN 10 3	Py. rich calcite veins.	115303	0.041	0.072
77.00	79.00		7.0 0.0	0	1 CVN 0 7		115304	0.044	0.065
79.00	81.00		7.0 0.0	1	9 CVN 20 5	Magnetite aggregates in wall rock.	115305	0.034	0.082
81.00	83.00		7.0 0.1	2	0 CVN 20 3	One c.g. grain of cpy in qtz veinlet. Mt as fracture-fill.	115306	0.073	0.11
83.00	85.00	Fine-grained green homogeneous chloritic epidote	1.0 0.0	1	0 CVN 0 12		115307	0.054	0.575
85.00	87.00		10.0 0.0	5	56 CVN 0 10	Abundant magnetite aggregates throughout sample.	115308	0.044	0.2
87.00	89.00	Fine-grained dark green homogeneous chloritic epidote	5.0 0.0	0	1 CVN 30 1	Wk. sericite selvages to qtz/cal veins.	115309	0.033	0.062
89.00	90.45		1.0 0.2	2	32 CVN 15 2	Cpy. in calcite - epidote vein. Mt throughout sample.	115310	0.053	0.095
90.45	92.00	Coarse-grained tan green brecciated silicic chloritic	1.0 0.1	5	98 QVN 40 0	Brecciated and strongly silicified basalt. C.g. py. associated with Mt. Augite phenocrysts.	115311	0.079	0.075
92.00	94.00		3.0 0.0	5	83		115313	0.099	0.395
94.00	96.00		3.0 0.0	5	50		115314	0.096	0.273
96.00	98.00		0.5 0.0	5	60 MVN 25 3	Abundant Magnetite veins, scarce py. Strong silicification grading out down hole.	115315	0.059	0.161
98.00	100.00	Fine-grained grey-green homogeneous silicic chloritic	3.0 0.0	1	12 QCV 25 2	Strong silicification but brecciation is only evident in one 3-4cm wide seam.	115316	0.049	0.064
100.00	102.00	Fine-grained grey-green homogeneous chloritic silicic	1.0 0.0	1	19 QCV 25 2	Sporadic augite phenocrysts. Insipient silicification i.e. the rock is very hard but still retains the dark green-gray colour and original volcanic texture. Disseminated and fracture-fill py associated with calcite +/- epidote, magnetite and quartz.	115317	0.065	0.102
102.00	104.00		1.0 0.0	1	8 QCV 25 2		115318	0.024	0.049
104.00	106.00		1.0 0.0	1	5 QCV 45 2		115319	0.031	0.048
106.00	108.00		1.0 0.0	1	8 QCV 45 5		115320	0.047	0.057
108.00	110.00		1.0 0.1	1	8 QCV 25 2		115321	0.026	0.037
110.00	112.00		1.0 0.0	1	11 QCV 25 2		115322	0.024	0.02
112.00	114.00		1.0 0.0	2	85 QCV 25 2		115323	0.047	0.051
114.00	116.00		1.0 0.0	1	5 QCV 45 1	Py. disseminated in wall rock more so than in veins. Very patchy silicification.	115324	0.086	0.116

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
116.00	118.00	Fine-grained grey-green homogeneous chloritic silicic	2.0 0.0	1	10 QCV 25 2	Very patchy silicification. Abundant c.g. irregular shaped disseminated py.	115325	0.091	0.089
118.00	120.00		2.0 0.1	2	34 QCV 0 10		115326	0.083	0.201
120.00	121.75		3.0 0.0	1	23 QCV 35 1		115327	0.079	0.14
121.75	123.00	Fine-grained light green homogeneous chloritic silicic	3.0 0.0	1	9 QCV 10 1	Patchy silicification.	115328	0.068	0.168
123.00	125.00		3.0 0.0	1	1 QCV 10 5	Strong silicification.	115329	0.075	0.151
125.00	127.00		1.0 0.0	1	12 QCV 10 3	Tr. c.g Pyrrhotite.	115330	0.057	0.058
127.00	128.56		2.0 0.0	1	13 QCV 10 1	Tr. c.g Pyrrhotite. Very strong silicification.	115331	0.065	0.097
128.56	130.00	Fine-grained dark green homogeneous chloritic silicic	0.5 0.0	3	52 QCV 25 1	Mt aggregates in host rock.	115332	0.068	0.152
130.00	132.00		0.1 0.0	1	1 QCV 25 1		115333	0.091	0.158
132.00	134.00		0.1 0.0	3	102 QCV 25 1	Mt aggregates in host rock.	115334	0.085	0.156
134.00	136.00		0.1 0.0	2	32 QCV 25 1		115335	0.124	0.296
136.00	138.00		0.5 0.0	1	9 QCV 25 0		115336	0.096	0.123
138.00	140.00		0.5 0.0	1	25 QCV 25 0		115337	0.077	0.095
140.00	142.00		0.5 0.0	3	59 QCV 25 0	Mt aggregates in host rock.	115339	0.038	0.113
142.00	144.00		0.5 0.0	1	4 QCV 25 0		115340	0.044	0.058
144.00	146.00		2.0 0.0	1	7 QCV 25 0		115341	0.032	0.041
146.00	148.00		2.0 0.0	1	10 QCV 25 0	Tr. Pyrrhotite.	115342	0.054	0.075
148.00	150.00		1.0 0.1	1	6 QVN 45 2	Tr. cpy. From this point to 166m veins are qtz. rich with +/- trace calcite.	115343	0.104	0.282
150.00	152.00		2.0 0.0	1	4 QVN 25 1	Tr. Pyrrhotite. Massive Mt veinlets.	115344	0.148	0.301
152.00	154.00		0.5 0.0	1	17 QVN 20 2	Strong silicification.	115345	0.052	0.091
154.00	156.00	Fine-grained green-grey homogeneous chloritic silicic	2.0 0.0	1	2 QVN 30 0		115346	0.054	0.054
156.00	158.00		2.0 0.0	1	5 QVN 20 1	Minor epidote as a constituent in very thin py rich veinlets.	115347	0.11	0.239
158.00	160.00		3.0 0.0	1	3 QVN 20 0		115348	0.077	0.093
160.00	162.00		1.0 0.0	1	34 QVN 20 0		115349	0.071	0.136
162.00	164.00	Fine-grained dark green homogeneous chloritic silicic	1.0 0.0	1	34 QCV 20 0	Strong chlorite with moderate, patchy silica alteration.	115350	0.025	0.024
164.00	166.00		1.0 0.0	1	34 QCV 10 0		115351	0.044	0.044

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
166.00	168.00	Fine-grained dark green homogeneous chloritic silicic	2.0 0.0	1	25 QCV 10 5		115352	0.075	0.145
168.00	170.00		2.0 0.0	1	35 QCV 30 0		115353	0.106	0.247
170.00	172.00		2.0 0.0	2	12 QCV 30 0	Mt. in-filling fractures. Epidote veins up to 10% of section. Weak silicification.	115354	0.032	0.044
172.00	174.00		2.0 0.0	2	27 QCV 30 7		115355	0.087	0.198
174.00	176.00		3.0 0.0	2	8 QCV 40 1		115356	0.091	0.106
176.00	177.70		3.0 0.1	1	1 QCV 10 2		115357	0.187	0.304
177.70	179.70	Fine-grained light grey mottled silicic chloritic	0.1 0.0	1	4 QVN 65 5	Strongly silicified zone, silica flooded and qtz. veined. Can see original basaltic intermittently. Tr. Mt in fractures.	115358	0.222	0.372
179.70	181.70	Fine-grained dark green homogeneous chloritic epidote	2.0 0.0	1	0 QECV 10 5	Epidote rich qtz/carb/py veins. Tr. pyrrhotite.	115359	0.105	0.177
181.70	183.70		2.0 0.2	3	21 QECV 10 10		115360	0.043	0.061
183.70	185.00		0.5 0.0	1	16 QCV 45 2	Very strongly chloritic rock with wispy epidote veinlets. Mt in scattered QCV.	115361	0.041	0.039
185.00	187.00		0.5 0.0	0	1 QCV 45 2		115362	0.039	0.063
187.00	189.00		1.0 0.0	0	1 QCV 45 2		115363	0.041	0.041
189.00	191.00		1.0 0.0	0	3 QCV 5	QCV and CVN veins occupy irregular tension-gash type fractures with no preferred orientation.	115365	0.045	0.075
191.00	193.00	Fine-grained dark green chloritic epidote	0.5 0.0	0	1 QCV 5	Coarsely augite porphyritic.	115366	0.095	0.166
193.00	195.00	Fine-grained dark green in-situ brecciated chloritic epidote	0.5 0.0	1	12 QCV 5	Highly fractured to in-situ breccia texture.	115367	0.116	0.249
195.00	197.00	Fine-grained dark green chloritic epidote	0.0 0.0	2	10 QCV 10 15		115368	0.153	0.226
197.00	199.00		0.0 0.0	1	50 QCV 10 15		115369	0.09	0.178
199.00	201.00		0.0 0.0	1	33 CVN 35 7		115370	0.035	0.043
201.00	203.00	Fine-grained dark green in-situ brecciated chloritic epidote	0.0 0.0	1	44 CVN 25 3	Abundant epidote in-filling fractures.	115371	0.057	0.073
203.00	205.00		0.1 0.0	1	15 CVN 50 2		115372	0.068	0.08
205.00	207.00	Fine-grained dark green homogeneous chloritic epidote	0.1 0.0	2	7 CVN 0 10	Mt in calcite veins.	115373	0.102	0.194
207.00	209.00	Medium-grained dark green homogeneous chloritic epidote	0.1 0.0	0	6 CVN 15 2	Abundant augite phenocrysts in f.g. matrix. Slight increase in grain size i.e. more granular looking.	115374	0.148	0.348

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
209.00	211.00	Medium-grained dark green homogeneous chloritic epidote	0.0 0.0	2 106	CVN 15 2	M.g disseminated Mt.	115375	0.053	0.157
211.00	213.00		0.0 0.0	2 91	CVN 15 2	Mt. in-filling fractures.	115376	0.13	0.32
213.00	214.38		0.0 0.0	1 6	CVN 85 2		115377	0.099	0.17
214.38	216.38	Medium-grained orange grey mottled silicic	0.0 0.0	5 62	QVN 90 1	Strong silicification and k-feldspar flooding. F.g. disseminated Mt.	115378	0.144	0.258
216.38	218.60		0.1 0.0	5 9	QCV 25 1	Similar to 115378 but more patchy feldspar alteration with chloritic areas showing through. F.g. disseminated Mt.	115379	0.077	0.112
218.60	220.18	Medium-grained green homogeneous silicic chloritic	0.1 0.0	1 46	QCV 40 0	Qtz. rich irregular shaped tension-gash and pinch and swell qtz/cal veins. Sample is devoid of sulphide mineralization.	115380	0.077	0.117
220.18	222.00	Medium-grained green homogeneous chloritic epidote	0.0 0.0	1 51	QCV 10 5	Occasional augite phenocryst. Patchy epidote increasing down hole. Mt. in f.g. to m.g. isolated blebs possibly pseudomorphing augite.	115381	0.082	0.213
222.00	224.00		0.0 0.0	1 19	CVN 10 2		115382	0.057	0.1
224.00	226.00		0.0 0.0	1 48	QCV 35 3		115383	0.05	0.098
226.00	228.00		0.0 0.0	1 31	QCV 0 20		115384	0.072	0.149
228.00	229.66		0.0 0.0	1 45	QCV 15 20		115385	0.032	0.052
229.66	231.00	Fine-grained dark green chloritic epidote	0.0 0.0	1 37	QKCVN 30 10	Up to 10% c.g. augite phenocrysts in a f.g. to fine to m.g. matrix. Epidote alt. is weak and confined to narrow veinlets.	115386	0.044	0.113
231.00	233.00		0.0 0.0	1 43	QKCVN 30 2		115387	0.05	0.199
233.00	235.00		0.0 0.0	1 5	QCV 35 3		115388	0.015	0.05
235.00	237.00		0.0 0.0	2 20	ZCV 40 3	Pale pink zeolite / carbonate veinlets. Very weak epidote in very augite porphyritic basalt. Disseminated Mt.	115389	0.06	0.141
237.00	239.00		0.0 0.0	2 53	ZCV 40 3		115391	0.006	0.005
239.00	241.00		0.0 0.0	2 29	ZCV 40 3		115392	0.014	0.028
241.00	243.00		0.0 0.0	2 29	ZCV 40 3		115393	0.026	0.051
243.00	245.00	Fine-grained dark green homogeneous chloritic epidote	1.0 0.1	2 36	QCV 15 1	Occasional augite phenocryst. Trace c.g. cpy. in qtz/cal veins.	115394	0.107	0.49
245.00	247.00		1.0 0.3	2 57	QCV 15 2		115395	0.068	0.34
247.00	247.85		0.0 0.0	0 5	QCV 10 1		115396	0.056	0.118

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
247.85	250.00	Coarse-grained light grey brecciated silicic sericitic	1.0 0.0	0	2	Strongly silicified breccia. Possible healed fault. Similar looking alteration as 115378 but with less k-feldspar.	115397	0.233	0.766
250.00	252.00	Fine-grained dark green homogeneous chloritic epidote	1.0 0.0	1	61 ZCV	1	115398	0.109	0.182
252.00	254.00		1.0 0.0	1	23 ZCV	10 1	115399	0.054	0.087
254.00	256.00		1.0 0.0	2	66 QZCV	65 3	115400	0.069	0.114
256.00	258.00		0.1 0.0	1	10 QZCV	55 3	115401	0.065	0.131
258.00	260.00		0.0 0.0	1	25 QZCV	15 3	115402	0.1	0.236
260.00	262.00		0.0 0.0	2	60 QZCV	35 7	115403	0.043	0.086
262.00	264.00	Fine-grained dark green chloritic epidote	0.0 0.0	2	29 QZCV	0 5	115404	0.029	0.061
264.00	266.00		0.0 0.0	2	43 QZCV	0 15	115405	0.057	0.264
266.00	268.00		0.0 0.0	2	26 QZCV	0 15	115406	0.035	0.079
268.00	270.00		0.0 0.0	2	32 QZCV	20 7	115407	0.087	0.201
270.00	270.47		0.0 0.0	2	24 CON	47	115408	0.014	0.087
270.47	271.51	Fine-grained dark green homogeneous chloritic epidote	0.0 0.0	2	15 CON	65	115409	0.066	0.133
271.51	272.17	Fine-grained dark green homogeneous sericitic zeolite	0.0 0.0	2	36 CON	65	115410	0.712	1.43
272.17	274.00	Fine-grained dark green homogeneous chloritic epidote	0.0 0.0	2	82 ZCV	30 2	115411	0.095	0.223
274.00	276.00		0.0 0.0	2	68 ZCV	30 2	115412	0.015	0.055
276.00	278.03		0.0 0.0	2	89 ZCV	30 1	115413	0.033	0.069
278.03	279.50		0.0 0.0	1	13 ZCV	30 5	115414	0.057	0.302
279.50	281.50	Fine-grained light grey homogeneous silicic chloritic	0.5 0.0	1	3 QCV	35 1	115415	0.034	0.109
281.50	283.34	Fine-grained light grey homogeneous chloritic silicic	0.5 0.0	1	36 QCV	35 3	115417	0.083	0.199
283.34	285.34	Fine-grained green homogeneous chloritic epidote	0.1 0.0	1	3 ZCV	5 10	115418	0.088	0.153
285.34	287.34	Fine-grained green chloritic epidote	0.1 0.0	1	37 ZCV	0 5	115419	0.123	0.251



## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
287.34	289.34	Fine-grained green chloritic epidote	0.1 0.0	2	85 ZCV 15 2		115420	0.14	0.256
289.34	290.75		0.1 0.0	1	43 ZCV 20 5		115421	0.1	0.267
<b>290.75</b>	<b>299.35</b>	<b>BASALT TUFF</b>							
290.75	291.75	Coarse-grained dark green brecciated chloritic epidote	0.0 0.0	1	29 ZCV 10 5	C.g fragment supported tuff to tuff breccia. Strong epidote alteration.	115422	0.097	0.213
291.75	293.75		0.0 0.0	2	25 ZCV 10	ZCV's totally randomly orientated fracture-fill.	115423	0.064	0.177
293.75	295.75		0.0 0.0	1	26 ZCV 0		115424	0.086	0.23
295.75	297.75		0.0 0.0	1	38 ZCV 0		115425	0.102	0.183
297.75	298.91		0.0 0.1	1	8 ZCV 1		115426	0.152	0.33
298.91	299.35	Fine-grained black	0.0 0.0	1	26 FLT 40	Chlorite / Graphite fault gouge with finely ground magnetite.	115427	0.066	0.977
<b>299.35</b>	<b>313.34</b>	<b>MONZONITE</b>							
299.35	300.79	Coarse-grained grey chloritic	0.1 0.0	2	47 QVN 20 0	V.c.g monzonite porphyry cut by sparse qtz veins and very thin pink laumontite +/- carbonate veins. Mt in qtz veins and on slips. 50 feldspar phenocrysts, 15% mafic minerals and 35% anhedral matrix.	115428	0.021	0.269
300.79	302.00		0.5 0.0	2	102 QVN 20 3		115429	0.023	0.157
302.00	304.00		0.5 0.0	2	24 QVN 20 2		115430	0.008	0.022
304.00	306.00		0.5 0.0	4	73 QVN 15 4		115431	0.037	0.05
306.00	308.00		0.5 0.1	2	34 QVN 15 4		115432	0.027	0.139
308.00	310.00		0.5 0.1	4	67 QVN 25 5		115433	0.013	0.024
310.00	312.00		0.5 0.0	4	67 QVN 80 1		115434	0.02	0.124
312.00	313.34		0.5 0.0	4	50 CON 45	Very sharp contact. V.c.g monzonite porphyry cut by sparse qtz veins and very thin pink laumontite +/- carbonate veins. Mt in qtz veins and on slips. 50 feldspar phenocrysts, 15% mafic minerals and 35% anhedral matrix. Abundant Mt in qtz. veins at wall rock contacts and in selvages around veins.	115435	0.019	0.054
<b>313.34</b>	<b>326.4</b>	<b>BASALT FLOW</b>							
313.34	314.85	Fine-grained grey-green homogeneous chloritic silicic	0.5 0.3	4	54 QVN 45 20	Qtz Mt veins and qtz flooding locally. V.f.g. to locally aphanitic flows. Cpy. at several vein margins.	115436	0.291	0.749
314.85	316.00	Fine-grained grey-green homogeneous chloritic	0.1 0.0	1	26 QVN 40 0		115437	0.133	0.384

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
316.00	318.00	Fine-grained grey-green homogeneous chloritic	0.1 0.0	2	174 QVN 25 0	Chloritic basalt with occasional augite phenocryst. V.f.g disseminated Mt in matrix and coarser grained Mt in selvages of qtz veins.	115438	0.161	0.426
318.00	320.00		0.5 0.0	2	57 QVN 25 2		115439	0.185	0.499
320.00	322.00		0.1 0.0	2	85 QVN 70 3		115440	0.05	0.097
322.00	324.00		0.1 0.0	3	100 QVN 70 2		115441	0.147	0.333
324.00	326.00		0.3 0.3	3	337 QVN 65 15	V.c.g cpy. in v.c.g. mt. in qtz. veins.	115443	0.17	0.376
326.00	326.40		0.0 0.0	1	52 QVN 65 15	M.g disseminated Mt. Contact sharp but highly irregular. It is in the order of 40 deg. t.c.a.	115444	0.206	0.439
326.4		340.73		<b>MONZONITE</b>					
326.40	328.00	Coarse-grained grey chloritic epidote	0.1 0.1	5	134 QMTVN 65 5	C.g feldspar porphyritic monzonite cut by Mt. rich qtz. veins. F.g. cpy. in fractures in qtz. veins. V.f.g. epidote.	115445	0.048	0.185
328.00	330.00		0.1 0.1	10	103 QMTVN 25 25		115446	0.04	0.105
330.00	332.00		0.1 0.1	10	60 QMTVN 20 15		115447	0.038	0.08
332.00	334.00		0.1 0.1	3	37 QMTVN 45 5		115448	0.013	0.038
334.00	336.00		0.1 0.1	3	82 QMTVN 40 3		115449	0.017	0.034
336.00	338.00		0.1 0.1	5	35 QMTVN 35 4		115450	0.034	0.04
338.00	340.00		0.1 0.1	2	329 QMTVN 45 3		115451	0.038	0.079
340.00	340.73		5.0 0.1	3	69 QMTVN 45 5		115452	0.221	0.65
340.73		360.2		<b>BASALT FLOW</b>					
340.73	342.33	Fine-grained dark grey homogeneous chloritic actinolitic	2.0 0.5	3	105 QCV 0 10	Core breaks along numerous thin QCV's. Cpy. associated with c.g. to semi-massive py stringers. V.f.g actinolite / hornblende alteration.	115453	0.286	0.762
342.33	344.00		3.0 0.1	3	73 QCV 30 5		115454	0.216	0.418
344.00	346.00	Fine-grained dark grey chloritic actinolitic	0.1 0.1	1	35 QCV 45 15	Mt. and chl. pseudomorphing augite. Mt and actinolite in fractures as well.	115455	0.122	0.266
346.00	348.00		0.3 0.1	2	59 ZCV 45 3		115456	0.023	0.052
348.00	350.00		0.2 0.1	2	58 QCV 25 2	Cpy. in qtz / carb breccia vein that is in turn cut but zeolite veinlets.	115457	0.036	0.08
350.00	352.00		0.2 0.1	2	121 QVN 45 15	C.g. mt. in qtz vein selvages replacing augite and in some fractures. Actinolite on fractures.	115458	0.016	0.05
352.00	354.00		0.5 0.1	3	91 QVN 40 15		115459	0.044	0.153

## Hole Number: KN-02-48

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
354.00	356.00	Fine-grained dark grey chloritic actinolitic	0.1 0.3	3 37	QVN 55 2		115460	0.103	0.171
356.00	358.00	Fine-grained dark grey chloritic epidote	0.2 0.3	5 145	QVN 30 4	V.c.g. Mt in selvages of qtz veins. epidote in qtz veins as well.	115461	0.044	0.132
358.00	360.20		0.0 0.0	1 29	CON 28	Disseminated magnetite in host rock.	115462	0.025	0.074
360.2	366.96	<b>BASALT</b>							
360.20	362.00	Coarse-grained dark green brecciated chloritic epidote	0.0 0.0	0 42		C.g. breccia of light coloured basalt in dark green chloritic matrix.	115463	0.086	0.184
362.00	364.00		0.1 0.0	0 10	FLT 5	1 cm seam of chlorite / graphite fault gouge sub-parallel t.c.a. from 363m to 363.50m.	115464	0.118	0.307
364.00	366.00		0.0 0.0	0 27	FLT	Note: A conspicuous absence of veins from 360.20m to 366.96m along with a chaotic nature of this breccia suggest it has a post mineralization tectonic origin. It looks as if QVN's and ZVN's have been destroyed. Locally it also has a fabric that is orientated sub-parallel t.c.a. This is a possible major fault zone.	115465	0.096	0.269
366.00	366.96		0.0 0.0	1 53	CON 38	Tectonic Bx.	115466	0.034	0.231
366.96	410.85	<b>BASALT FLOW</b>							
366.96	369.00	Coarse-grained green chloritic	0.0 0.0	1 25	ANV 40 1		115467	0.027	0.152
369.00	370.57		0.2 0.0	1 20	CVN 35 25	Zone of intense calcite veining.	115469	0.253	0.656
370.57	372.00	Fine-grained green homogeneous chloritic	1.0 0.0	3 513	ACCVN 45 1	Two - 2cm wide massive py. veins. Crudely laminated anhydrite / calcite veins. Massive Mt veins near end of sample.	115470	0.2	0.616
372.00	373.29		0.0 0.0	1 14	ACCVN 50 2	Anhydrite / calcite veins, some of which are crudely laminated.	115471	0.234	0.606
373.29	374.60	Coarse-grained dark green chloritic epidote	0.1 0.0	1 41	ACCVN 45 2	Anhydrite / calcite veins, some of which are crudely laminated in crowded augite porphyritic basalt..	115472	0.133	0.633
374.60	376.00	Fine-grained light green stockworked chloritic sericitic	1.0 0.1	5 20	CVN 20	Stock work of calcite veins and veinlets. One 2cm massive Mt vein at start of sample.	115473	0.179	0.792
376.00	378.00		0.1 0.0	1 23	CVN 20	Stock work of calcite veins and veinlets.	115474	0.058	0.207
378.00	379.00	Fine-grained green homogeneous chloritic sericitic	0.1 0.0	1 26	CVN 20 1	Very weak sericite alt. Py. in qtz/carb veins.	115475	0.126	0.456
379.00	381.00		0.1 0.0	1 28	ACCVN 20 2	Banded anhydrite carbonate veinlets. ZCV's near end the of the sample.	115476	0.076	0.517

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
381.00	383.00	Fine-grained dark green chloritic epidote	0.0 0.0	1	35 ZCV 40 3		115477	0.101	0.668
383.00	385.00		0.0 0.0	1	35 ZCV 45 1		115478	0.164	0.434
385.00	387.00		0.0 0.0	1	6 ZCV 35 2		115479	0.13	0.256
387.00	389.00		0.0 0.0	1	52 ZCV 55 10		115480	0.137	0.583
389.00	389.64		0.0 0.0	1	21 ZCV 55 1		115481	0.08	0.345
389.64	390.05		1.0 0.5	1	50 QCV 45 60	Banded qtz / cal vein with c.g. py. and m.g. cpy.	115482	0.405	17.7
390.05	392.00	Coarse-grained green chloritic epidote	0.0 0.0	1	33 ACCVN 25 3	Coarsely augite porphyritic basalt with a m.g. to c.g. matrix. Patchy areas up to 10 cm long with chlorite lined vugs.	115483	0.058	0.262
392.00	394.00		0.0 0.0	1	77 ACCVN 1		115484	0.085	0.427
394.00	396.00		0.0 0.0	1	78 ACCVN 60 2		115485	0.073	0.198
396.00	398.00		0.0 0.0	1	48 ACCVN 15 15		115486	0.08	0.417
398.00	400.00		0.0 0.0	1	50 ACCVN 45 5		115487	0.052	0.135
400.00	401.30		0.0 0.0	1	41 ACCVN 65 3		115488	0.039	0.099
401.30	401.66	Coarse-grained green brecciated chloritic epidote	15.0 0.0	1	2 PY 30 15	Probably fault breccia with massive py. at lower contact.	115489	0.094	0.794
401.66	403.00	Coarse-grained green chloritic epidote	0.0 0.0	3	90 ACCVN 65 1	Mt replacing augite phenocrysts.	115490	0.039	0.123
403.00	405.00		0.0 0.0	1	23 ACCVN 45 15		115491	0.071	0.211
405.00	407.00		0.0 0.0	1	33 ZCV 40 10		115492	0.048	0.105
407.00	409.00		0.0 0.0	1	44 ZCV 10 10		115493	0.118	0.285
409.00	410.85		0.0 0.0	1	3 ZCV 65 3		115495	0.163	0.447
410.85	411.41	<b>QUARTZ VEIN</b>							
410.85	411.41	Fine-grained light grey fractured silicic	0.0 0.0	1	23 ZVN 0 0	Qtz. flooded zone cut by hairline thin zeolite veinlets.	115496	0.146	0.205
411.41	448.97	<b>BASALT FLOW</b>							
411.41	413.00	Fine-grained light grey heterogeneous sericitic chloritic	0.0 0.0	1	19 ZVN 30 10	Zeolite flooded sericite rich horizon.	115497	0.171	0.296
413.00	413.50		0.0 0.0	1	19 ZVN 30 10		115498	0.25	0.634
413.50	415.00	Fine-grained light green mottled chloritic sericitic	0.0 0.0	1	16 ZVN 10 5	Several thin massive Mt veinlets.	115501	0.091	0.147

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
415.00	417.00	Fine-grained light green mottled chloritic sericitic	0.0 0.0	2	6 ZVN 10 25		115502	0.079	0.274
417.00	419.00		0.0 0.0	2	8 ZVN 45 15		115503	0.104	0.212
419.00	421.00		0.0 0.0	1	4 ZVN 35 15	Massive Mt. veinlets in upper 30cm of sample.	115504	0.068	0.118
421.00	423.00		0.5 0.0	3	166 ZVN 45 10	Massive Mt. veinlets especially in lower 30cm of sample.	115505	0.059	0.184
423.00	425.00		0.0 0.0	2	3 ZVN 55 15		115506	0.059	0.165
425.00	427.00		0.0 0.0	2	2 ZVN 55 15		115507	0.1	0.208
427.00	429.00		0.0 0.0	1	6 ZVN 55 15		115508	0.039	0.07
429.00	431.00		3.0 0.0	0	12 ZVN 55 15	One 10cm wide zone of semi-massive py.	115509	0.057	0.127
431.00	433.00		0.0 0.0	1	12 ZVN 45 15		115510	0.037	0.09
433.00	435.00		0.0 0.0	0	7 ZVN 25 15		115511	0.038	0.066
435.00	437.00		0.0 0.0	2	54 ZVN 45 15	Several massive and semi-massive Mt veinlets.	115512	0.076	0.183
437.00	439.00		0.0 0.0	1	37 ZVN 55 15	Mt. in irregular shaped fractures.	115513	0.045	0.093
439.00	441.00	Fine-grained dark green mottled chloritic sericitic	0.0 0.0	0	10 ZVN 35 20		115514	0.036	0.08
441.00	443.00	Fine-grained light green mottled chloritic sericitic	0.0 0.0	2	33 ZVN 60 15		115515	0.057	0.119
443.00	445.00		0.0 0.0	0	2 ZVN 15		115516	0.046	0.119
445.00	447.00		0.0 0.0	0	1 ZVN 15		115517	0.044	0.095
447.00	448.97		0.0 0.0	1	15 ZVN 35 10		115518	0.04	0.084
448.97	449.27	<b>MONZONITE</b>							
448.97	449.27	Fine-grained light green sericitic chloritic	0.0 0.0	0	2 ZVN 35 5	Feldspar porphyry dyke with 3-8% feldspar in aphanitic matrix.	115519	0.057	0.324
449.27	457.95	<b>BASALT FLOW</b>							
449.27	451.00	Fine-grained light green mottled chloritic sericitic	0.0 0.0	1	19 ZVN 35 15		115520	0.089	0.121
451.00	453.00		0.0 0.0	1	92 ZVN 70 15		115521	0.08	0.209
453.00	455.00		0.0 0.0	0	20 ZVN 15 10	Zone of strong zeolite carbonate veining.	115523	0.055	0.152
455.00	457.00		0.0 0.0	0	10 ZVN 15 20		115524	0.195	0.405
457.00	457.95		0.0 0.0	0	8 CON 30		115525	0.153	0.295
457.95	459.39	<b>BASALT</b>							

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
457.95	459.39	Coarse-grained green chloritic	0.0 0.0	0	8 CON 30	Possible dyke. looks like typical augite porphyritic basalt but has very sharp contacts. Note that the ZCV's are refracted in this unit. The are at 70 deg. t.c.a. as opposed to 0-30 deg's. on either side of here.	115526	0.042	0.059
<b>459.39</b>	<b>505.53</b>	<b>BASALT FLOW</b>							
459.39	461.00	Fine-grained light green mottled chloritic sericitic	0.0 0.0	0	2 ZVN 0 5	Zone of strong zeolite carbonate veining. About 50% of them are reactive with HCl. Sporadic areas with augite pseudomorphs. Pronounce chlorite lined vuggy zone. Vugs are between spider web of micro veinlets of zeolite.	115527	0.059	0.085
461.00	463.00		1.0 0.0	0	15 ZVN 15 15		115528	0.096	0.231
463.00	465.00	Fine-grained light green homogeneous chloritic sericitic	0.0 0.0	0	4 ZVN 15 10		115529	0.043	0.087
465.00	467.00		0.0 0.0	1	16 ZVN 75 10		115530	0.029	0.061
467.00	469.00		0.0 0.0	1	12 ZVN 20 7		115531	0.063	0.136
469.00	471.00		0.1 0.0	0	3 ZVN 55 4		115532	0.107	0.212
471.00	473.00		0.0 0.0	0	7 ZVN 10 10		115533	0.073	0.123
473.00	475.00		0.0 0.0	0	1 ZVN 15 10		115534	0.094	0.198
475.00	477.00		0.0 0.0	1	39 ZVN 35 3		115535	0.147	0.282
477.00	479.00		0.0 0.0	1	3 ZVN 20 5		115536	0.441	1.045
479.00	480.75		0.0 0.0	1	2 ZVN 45 4		115537	0.072	0.169
480.75	482.00	Fine-grained green heterogeneous sericitic chloritic	0.1 0.0	0	19 ZVN 45 2	Fractured to brecciated.	115538	0.112	0.214
482.00	483.83	Fine-grained heterogeneous silicic sericitic	0.5 0.0	0	0 ZVN 3	Highly silicified fractured flows.	115539	0.072	0.165
483.83	484.40	Fine-grained dark green heterogeneous chloritic	0.0 0.0	3	88 MTV 0 3	Discontinuous Mt. veinlets sub-parallel to core axis.	115540	0.159	0.355
484.40	485.66	Fine-grained grey-green heterogeneous sericitic	0.5 0.1	0	2 ZCV 10	Strong sericitization. Looks similar to 115539 but without the silicification.	115541	0.074	0.13
485.66	486.39	Coarse-grained grey-green heterogeneous chloritic sericitic	3.0 0.0	2	44 ZCV 15	Strong ser / chl alt. Abundant randomly orientated pink zeolite / carbonate veins. Patchy areas of chlorite lined vugs locally.	115542	0.181	0.405
486.39	488.00	Fine-grained green homogeneous chloritic sericitic	0.0 0.0	0	46 ZCV 10	No visible Mt. despite the high magnetic susceptibility reading.	115543	0.052	0.158
488.00	490.00		0.1 0.0	1	9 ZCV 40 1		115544	0.055	0.179

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
490.00	492.00	Fine-grained green mottled chloritic sericitic	1.0 0.0	1 11	ZCV 40 10	Include 10cm wide qtz/py/mt vein.	115545	0.132	0.348
492.00	492.47	Fine-grained dark green homogeneous chloritic silicic	5.0 0.1	5 76	ZCV 40 10		115546	0.476	1.655
492.47	493.30	Fine-grained dark green homogeneous chloritic	10.0 2.0	2 44	ZCV	Semi-massive py with c.g in patchily silicified dark green chloritized basalt. C.g Mt. aggregates.	115547	0.137	0.48
493.30	495.00	Fine-grained dark green in-situ brecciated chloritic sericitic	3.0 0.1	3 34	ZCV 5 7		115549	0.046	0.156
495.00	497.00	Fine-grained dark green homogeneous chloritic	1.0 0.0	1 1	ZCV 5		115550	0.181	0.261
497.00	499.00	Fine-grained dark green homogeneous chloritic sericitic	2.0 0.0	1 5	ZCV 7	Includes 2cm wide band of massive py with weak sericite in lower selvage of 6cm wide white quartz vein.	115551	0.35	0.934
499.00	501.00	Medium-grained green chloritic sericitic	3.0 0.0	1 27	ZCV 35 4	Heavily disseminated py. through wall rock. Tr py. in veins.	115552	0.228	0.532
501.00	503.00		1.0 0.0	2 173	ZCV 45 10	Strongly augite porphyritic basalt flows.	115553	0.114	0.284
503.00	505.00		0.1 0.1	1 21	ZCV 40 5		115554	0.159	0.402
505.00	505.53		0.0 0.0	1 26	ZCV 30 10	Mt replacing augite phenocrysts.	115555	0.313	0.713
505.53	506.15	<b>BASALT QUARTZ VEIN ZONE</b>							
505.53	506.15	Fine-grained grey white fractured	2.0 0.0	0 5	QVN 30100	massive qtz vein cut by numerous fractures. Contains about 1-2% fracture controlled py. vein at 30 deg. to core axis.	115556	0.057	0.098
506.15	508.67	<b>BASALT FLOW</b>							
506.15	508.00	Medium-grained green chloritic sericitic	2.0 0.0	2 114	ZCV 40 10		115557	0.17	0.367
508.00	508.67		0.1 0.0	5 127	ZCV 40 10		115558	0.114	0.273
508.67	509.03	<b>BASALT QUARTZ VEIN ZONE</b>							
508.67	509.03	Medium-grained grey white fractured	10.0 0.0	0 1	QVN 30100	Similar to 115556 with c.g and semi-massive py stringers and y in upper selvage of qtz. vein at 30 deg to core axis.	115559	0.034	0.11
509.03	512	<b>BASALT FLOW</b>							
509.03	510.28	Medium-grained green homogeneous chloritic sericitic	0.2 0.0	1 34	QVN 30 3	Aphanitic basalt flow with Mt in fractures and in qtz. veins.	115560	0.235	0.544
510.28	512.00	Medium-grained green chloritic sericitic	0.5 0.0	2 3	QCV 40 3	2-3% very small (1-3mm) amygdules. Qtz./Mt veins as well as zeolite veins.	115561	0.41	0.832
512	513.05	<b>BASALT FAULT ZONE</b>							

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
512.00	513.05	Medium-grained dark green heterogeneous chloritic	0.2 0.0	20 269	QMTVN 15 70	40% lost core. Qtz. with massive magnetite veins in chlorite.	115562	0.158	0.339
<b>513.05</b>	<b>525</b>	<b>BASALT FLOW</b>							
513.05	515.00	Medium-grained dark green chloritic	1.0 0.0	1 21	ZCV 0 10		115563	0.206	0.334
515.00	517.00		1.0 0.0	3 57	ZCV 7		115564	0.159	0.218
517.00	519.00		0.3 0.0	2 51	ZCV 35 3		115565	0.155	0.349
519.00	521.00	Medium-grained green chloritic	0.0 0.0	2 52	ZCV 60 3		115566	0.157	0.293
521.00	523.00	Fine-grained green homogeneous chloritic sericitic	0.3 0.1	1 9	ZCV 60 6	V.f.g. to near aphanitic basalt. Very weak sericite alt. tr. cpy in one 6cm qtz vein.	115567	0.188	0.693
523.00	525.00		0.1 0.0	1 20	CON 55		115568	0.109	0.161
<b>525</b>	<b>525.97</b>	<b>BASALT</b>							
525.00	525.97	Coarse-grained green chloritic sericitic	0.1 0.0	1 51	QCV 35 2	Augite porphyry dyke like 116526. Lower contact broken and lost.	115569	0.201	0.536
<b>525.97</b>	<b>577.86</b>	<b>BASALT FLOW</b>							
525.97	528.00	Fine-grained green homogeneous chloritic sericitic	0.3 0.0	1 40	ZCV 35 1		115570	0.131	0.247
528.00	530.00		0.3 0.0	1 23	ZCV 50 3		115571	0.1	0.196
530.00	532.00		1.0 0.0	1 137	ZCV 65 3	All the Mt in this sample is in the lower 30cm. Sample includes 18cm augite porphyry dyke.	115572	0.162	0.278
532.00	534.00		1.0 0.0	2 65	ZCV 40 4		115573	0.148	0.28
534.00	536.00		1.0 0.0	1 15	ZCV 35 4	Includes 22cm augite porphyry dyke.	115575	0.207	0.398
536.00	538.00		1.0 0.7	1 33	QCV 35 15	V.f.g. cpy. mixed with c.g. py. in massive py. vein and v.f.g. to m.g. cpy. disseminated in host throughout sample and appears to be replacing py.	115576	0.545	1.055
538.00	540.00		1.0 0.2	1 22	QCV 35 5	Minor v.f.g disseminated cpy with disseminated py/	115577	0.301	0.682
540.00	542.00		1.0 0.2	1 55	QCV 40 3		115578	0.2	0.537
542.00	544.00	Fine-grained green homogeneous chloritic epidote	0.3 0.0	1 16	QCV 75 2	Very epidote rich. Abundant chlorite lined vugs.	115579	0.099	0.164
544.00	546.00	Coarse-grained dark green chloritic	1.0 0.2	1 103	QCV 15 3	Augite phyric basalt to augite porphyritic. Very fresh looking i.e. the augite crystals are not pseudomorphed by chlorite and magnetite.	115580	0.172	0.265
546.00	548.00		1.0 0.0	2 86	QCV 15 3		115581	0.232	0.421
548.00	550.00		1.0 0.0	2 113	QCV 40 1		115582	0.124	0.191



**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
550.00	552.00	Coarse-grained dark green chloritic	2.0 0.0	2	150 QCV 35 2		115583	0.179	0.304
552.00	554.00		1.0 0.1	2	15 QCV 40 2	Trace disseminated cpy. in wall rock. Veins are barren.	115584	0.163	0.329
554.00	556.00		1.0 0.0	1	21 QZCV 30 4		115585	0.164	0.224
556.00	558.00		1.0 0.0	1	12 QZCV 30 2		115586	0.254	0.408
558.00	560.00		1.0 0.0	1	18 QCV 45 1		115587	0.172	0.371
560.00	562.00		1.0 0.0	1	24 QZCV 35 5	Scattered area of 5-15cm with chlorite lined vugs.	115588	0.163	0.268
562.00	564.00		2.0 0.2	1	14 QCV 35 2		115589	0.095	0.196
564.00	566.00		2.0 0.0	1	9 QCV 45 12	Includes 20cm wide qtz. vein with 7-10% c.g. py. stringers.	115590	0.182	0.339
566.00	568.00		1.0 0.0	2	56 QCV 35 3		115591	0.174	0.325
568.00	570.00		2.0 0.0	2	100 QZCV 35 2		115592	0.18	0.381
570.00	572.00		1.0 0.0	2	119 QCV 45 3		115593	0.385	1.075
572.00	574.00		1.0 0.0	5	200 QCV 45 5	V.f.g. disseminated Mt and Mt in thin massive stringers and as selvages to qtz. veins.	115594	0.439	1.065
574.00	576.00		1.0 0.1	1	13 QCV 35 4		115595	0.492	1.095
576.00	577.86		1.0 0.0	1	6 QCV 35 7		115596	0.378	0.836
577.86	578.21	<b>BASALT QUARTZ VEIN ZONE</b>							
577.86	578.21	Coarse-grained light grey chloritic clay	5.0 0.1	0	5 QCV 90	Very strong massive clay alteration at upper contact of massive qtz. vein. Both contacts broken and lost.	115597	0.161	0.321
578.21	580.38	<b>BASALT FLOW</b>							
578.21	580.00	Coarse-grained dark green chloritic sericitic	0.5 0.0	3	158 QCV 35 3	Very augite porphyritic. Moderately sericitic with thin massive Mt stringers.	115598	0.246	0.317
580.00	580.38	Coarse-grained dark green chloritic	0.5 0.0	5	95 QCV 35 1	Abundant c.g. Mt and Mt. stringers.	115599	0.033	0.054
580.38	582.43	<b>MONZONITE</b>							
580.38	582.43	Coarse-grained dark grey chloritic clay	1.0 0.0	2	73 QMV 40 20	Weak clay alteration of K-spar phenocrysts. Cut by qtz/Mt veins. sample includes 25cm q.v.	115601	0.067	0.115
582.43	584.82	<b>BASALT FLOW</b>							
582.43	584.00	Coarse-grained dark green chloritic	0.5 0.1	2	109 QCV 35 1		115602	0.271	0.779
584.00	584.82		0.3 0.1	2	101 CON 60		115615	0	0
584.82	585.29	<b>BASALT QUARTZ VEIN ZONE</b>							

**Hole Number: KN-02-48**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
584.82	585.29	Coarse-grained light grey chloritic	5.0	0.2	5 293 QMV	70 Lower contact at 30 deg. t.c.a. Massive py. and massive Mt. stringers in q.v.	115616	0	0
585.29	605.64	<b>BASALT FLOW</b>							
585.29	586.00	Coarse-grained dark green chloritic	0.0	0.1	2 69 QMV	25 5	115603	0.234	0.691
586.00	588.00		0.5	0.1	1 19 QMV	20 8	115604	0.213	0.611
588.00	590.00		0.5	0.1	3 84 QMV	50 10	115605	0.118	0.34
590.00	592.00		0.5	0.0	2 43 QMV	50 5	115606	0.148	0.506
592.00	594.00		0.5	0.0	1 24 QCV	45 10	115607	0.045	0.125
594.00	596.00		1.0	0.0	3 36 QCV	45 3	115608	0.168	0.465
596.00	598.00		3.0	0.3	3 198 QMV	25 12	115609	0.091	0.284
598.00	600.00	Fine-grained dark green homogeneous chloritic	1.0	0.1	5 69 QCV	55 15	115610	0.054	0.135
600.00	602.00		0.5	0.1	3 132 QCV	40 3	115611	0.124	0.638
602.00	603.11		20.0	0.1	2 70 PVN	75 20	115612	0.044	2.63
603.11	603.64		0.5	0.1	2 63 QCV	45 3	115613	0.088	0.478
603.64	605.64		0.5	0.0	2 50 QCV	35 5	115614	0.099	0.29
605.64	EOH					EOH			

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-49**

Northing: 15070.9    Total Depth: 669.82m  
Easting: 9064.14    Azimuth: 0°  
Elevation: 1890.3    Dip: -90°

Geologist: E.Ramsay  
Logged Date: 10/4/2002

Survey Depth	Azimuth	Dip	Comments:
112 m	0 °	-90 °	
203 m	0 °	-88 °	
295 m	0 °	-88 °	
386 m	18 °	-82 °	Mechanical
477 m	0 °	-89 °	
569 m	0 °	-88 °	
660 m	0 °	-88 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-49**

From (m)	To (m)	Rock Type	Comments
0	3.66	CASING	
3.66	8.77	MONZONITE	Porphyritic dyke, possibly monzonitic, showing 30% fine to medium grained feldspar (1-3mm) phenocrysts in an aphanitic matrix. 10% centimetric xenoliths. Contact @ 50 degrees to c.a. could also be a tuff.
8.77	15.45	BASALT	Auto-brecciated basalt flow. Showing monogenic breccia texture. Centimetric angular fragments of dark green porphyritic basalt (augite-phyric) in an aphanitic epidotized matrix. Two minor quartz-feldspar porphyry dykelets with irregular contacts between 13.45-14.06m and 14.22-14.30m.
15.45	29.94	MONZONITE	Porphyritic dyke, similar to 3.66-8.77m but could also be a crystal tuff. Upper contact ground to 90 degrees to c.a. by core rotation. Narrow interval of basalt between 15.70-15.90m. Sharp irregular contact @ roughly 30 degrees to c.a.
29.94	406	BASALT	Major fault breccia zone w/ gouge. Rock is greenish black
406	419.11	BASALT FLOW	Increased epidote alteration weak to moderate. Potassic altered plagioclase, increased diss and aggregates. Py and cpy in places associated locally with quartz vein at about 407.95m. Massive magnetite. Augite phenocrysts barely visible locally.
419.11	424	BASALT FLOW BRECCIA	Moderately silicified. Disseminated py and aggregates. Less veining of quartz/ zeolite. Weak epidote alteration. Brecciated locally.
424	428	ANDESITE FLOW BRECCIA	Brecciated increase py dissemination and aggregates in host, associated with epidote alteration weak. Fragments associated with weak to moderate py mineral and no epidote alteration. Quartz/ zeolite vein between 424.41-425.23m. BKN zone. Very weak patchy brown colour possibly due to weak sericite +/- fine biotite alteration. Possibly intermediate andesitic flow.
428	430	ANDESITE FLOW	Brown colour as above associated with our increase in py. Quartz/ K-feldspar/ magnetite veining from 428.32-428.42m. Quartz between 429.02-429.10m. Augite phenocrysts. Weak epidote alteration. Augite phenocrysts visible, possibly basalt and andesite flows. Rare magnetite aggregates in association with quartz veining.

Hole Number: **KN-02-49**

From (m)	To (m)	Rock Type	Comments
430	433.02	ANDESITE FLOW BRECCIA	Augite phenocrysts, brecciated texture in places. Magnetite aggregates associated with quartz/ K-feldspar between 430.55-430.57m and py aggregates at 430.83m. Weak epidote alteration.
433.02	435	ANDESITE FLOW	Increased quartz veining between 433.02-433.64m. Brown colour due to sericite +/- fine biotite alteration associated with epidote alteration. Quartz/ magnetite veining associated with py dissemination and aggregates. Protolith overprinted.
435	437	ANDESITE FLOW BRECCIA	Brown patchy colour due to weak sericite +/- fine biotite alteration. Increase in disseminating py and aggregates. Local potassic altered portions and felsic, white portions. Quartz/ zeolite veining, generally barren. Weak epidote alterations.
437	440.67	ANDESITE FLOW	Brown colour as above, dark brown portions of moderate to high sericite +/- fine biotite alterations associated with disseminated py and aggregates plus barren quartz vein. Fragmented, light green between 437.26-437.84m.
440.67	441.52	ANDESITE FLOW BRECCIA	Fragmental quartz, flow fragments, possibly insitu breccia. Brown colour due to weak sericite +/- fine biotite. Weak epidote alteration associated with py aggregates and disseminated quartz/ zeolite veining. BKN locally.
441.52	442.36	BASALT FLOW	Massive magnetite between 441.90-442.03m. Augite phenocrysts. epidote weak to moderate alteration. Brown between 442.13-442.36m possibly sericite +/- fine biotite alteration associated with an increase of disseminated py and aggregates. Increased zeolite/ quartz vein between 441.52-441.82m.
442.36	443.81	BASALT FLOW BRECCIA	Weak patchy brown colour due to weak sericite +/- fine biotite alteration associated with increased disseminated py and aggregates. Brecciated Augite phenocrysts visible locally. Pot alteration between 443.64-443.75m.
443.81	447	BASALT FLOW	Increased magnetite massive and stringers. Brown colour possibly medium to high sericite +/- fine biotite alteration associated with py aggregates and magnetite aggregates and epidote alteration with quartz veining in places. Quartz/ zeolite veining at shallow angles 3-5 core axis. Light grey quartz rich.
447	453	BASALT FLOW BRECCIA	Augite and plagioclase phenocrysts between 447.55-447.68m. Weak brecciated texture. Quartz/ epidote/ pot veining. Rare cpy association with disseminated py. Quartz/ K-feldspar at 448.10m.
453	454	BASALT FLOW	Magnetite/ quartz veining associated with py veining between 453.24-453.70m. Disseminated and aggregate py. Weak epidote alteration.

Hole Number: **KN-02-49**

From (m)	To (m)	Rock Type	Comments
454	460	BASALT FLOW BRECCIA	Slightly brecciated, flow breccia increase in quartz/ zeolite veining between 453.28-453.45m vuggy. Faint local brown sericite +/- fine biotite alteration. Augite phenocrysts visible locally. Weak epidote alteration associated with py aggregates. Minor magnetite aggregates associated with quartz veining.
460	462	BASALT FLOW	Increased quartz/ calcite veining between 460.09-460.74m. Brown colour due to weak sericite +/- fine biotite alteration. Weak patchy epidote alteration. Augite phenocrysts visible locally. Quartz veining associated with magnetite aggregates.
462	464	BASALT FLOW BRECCIA	Brown colour due to weak sericite +/- fine biotite alteration. Pot alteration. Quartz/ calcite vein at 462.38m vuggy. Weak epidote local fragmental possibly brecciated texture. Rare cpy association with py aggregates.
464	471.65	BASALT FLOW	Minor BKN portion. Magnetite/ py vein between 464.25-464.38m associated with quartz. Brown colour as above associated with increased py aggregates and dissemination. Weak epidote alteration associated with quartz vein and magnetite vein. Augite phenocrysts visible locally.
471.65	472.37	BASALT FLOW BRECCIA	Augite phenocrysts visible locally associated with disseminated py and aggregates. Brecciated texture visible locally.
472.37	476.14	BASALT FLOW	Augite phenocrysts as above. Local weak epidote alterations between 473.02-473.08m and 473.36-473.43m. Quartz/ zeolite veining locally enveloped with potassic alterations.
476.14	478.08	BASALT FLOW BRECCIA	Porphyritic texture between 476.14-476.70m. Massive and brecciated from 476.70m associated with magnetite aggregates and weak epidote alteration. Localized pot alteration. Local increase in magnetite between 476.14-476.70m
478.08	483.89	BASALT FLOW	Weak patchy brown colour due to weak sericite +/- fine biotite alteration. Increased plagioclase phenocrysts at 478.08-478.19m. Local increase in magnetite. Slightly mottled. Local weak epidote alterations in flow and continued to stringers.
483.89	486	BASALT FLOW BRECCIA	Brown colour, weak sericite +/- fine biotite alteration. Py disseminated aggregates. Quartz/ calcite/ magnetite vein. Locally brecciated associated with disseminated py and brown colour. +/- fine biotite alteration. Py/ magnetite stringers associated with quartz vein locally. Massive magnetite and disseminated py and aggregates. Weak epidote alteration.
486	503.3	BASALT FLOW	Brown colour as above. Increased disseminated py and aggregates. Magnetite/ py veining at 486.65m. Magnetite stringers between 486.85-487.14m. Augite phenocrysts visible locally.

Hole Number:

**KN-02-49**

From (m)	To (m)	Rock Type	Comments
503.3	504.28	BASALT FLOW BRECCIA	Quartz/ zeolite veining, increase in augite and plagioclase phenocrysts. Fault plane at 504.28m infilled with gouge material and disseminated py. Hematite veining at 503.78-503.80m and magnetite veining. Weak epidote alteration. Cpy aggregates at 504.02m. Local breccia.
504.28	508	BASALT FLOW	Augite phenocrysts. Quartz/ zeolite vein between 504.28-504.47m associated with disseminated py +/- cpy. Quartz veining between 504.74-505.67m. Dark green chlorite between 504.47-504.74m. Magnetite aggregate associated with veining.
508	510	BASALT FLOW BRECCIA	Fragmental, possibly insitu breccia. Brown colour between 508.00-508.40m, possibly due to weak sericite +/- fine biotite alteration. Quartz/ zeolite/ calcite veining between 508.44-509.47m at shallow angle banded. Quartz/ calcite/ magnetite veining between 509.71-509.96m. Slightly brecciated. Local disseminated py.
510	649.54	BASALT FLOW	Silicified and potassic and possibly sericitized. Pink brown colour. Hardness >4, associated with rare py mineralization. BKN between 510.81-511.20m. Quartz/ zeolite/ calcite veining. alteration overprinting protolith.
649.54	650.82	QUARTZ MONZONITE	Weak epidote alteration. Quartz/ zeolite veining. Quartz vein between 650.45-650.68m associated with py and cpy stringers with weak epidote and magnetite. Plagioclase and K-feldspar phenocrysts in light pink/ grey fine grained matrix. Weakly to moderately silicified, possibly secondary alteration. Monzodiorite.
650.82	655.75	BASALT FLOW	Brown colour due to weak to moderate sericite +/- fine biotite alteration. Quartz/ zeolite veining associated with magnetite aggregates. Augite and plagioclase phenocrysts.
655.75	656.96	QUARTZ MONZONITE	Plagioclase and K-feldspar phenocrysts in pink/ brown matrix, possibly quartz monzodiorite as in sample 117466. Silicified py/ cpy/ aggregates and veining associated with quartz/ zeolite veining and weak epidote alteration. Vuggy. Possibly weak potassic altered portions.
656.96	669.65	BASALT FLOW	Brown colour due to moderate sericite +/- fine biotite alteration. Plagioclase and augite phenocrysts in weak silicified portions. Quartz/ zeolite veining associated with molybdenum rare. Rare disseminated py and aggregates.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	3.66	<b>CASING</b>							
	0.00	3.66					49	-2	-2
3.66	8.77	<b>MONZONITE</b>							
	3.66	5.18 Medium-coarse-grained orange grey epidote sericitic		0		Porphyritic dyke, possibly monzonitic, showing 30% fine to medium grained feldspar (1-3mm) phenocrysts in an aphanitic matrix. 10% centimetric xenoliths. Contact @ 50 degrees to c.a. could also be a tuff.	114942	0.001	-2
	5.18	7.00 Medium-coarse-grained light green epidote sericitic		1			114943	0.001	0.019
	7.00	8.77	0.1	4	CTC 50		114944	0.003	0.047
8.77	15.45	<b>BASALT</b>							
	8.77	11.00 Fine-coarse grained dark green flow brecciated chloritic epidote	0.1	3		Auto-brecciated basalt flow. Showing monogenic breccia texture. Centimetric angular fragments of dark green porphyritic basalt (augite-phyric) in an aphanitic epidotized matrix. Two minor quartz-feldspar porphyry dykelets with irregular contacts between 13.45-14.06m and 14.22-14.30m.	114945	0.023	0.157
	11.00	13.00		1	77		114946	0.023	0.15
	13.00	15.45 Fine-coarse grained dark green brecciated chloritic epidote		32	FLT 45 15	Brittle fault breccia between 13.45-13.71m.	114947	0.001	0.009
15.45	29.94	<b>MONZONITE</b>							
	15.45	17.00 Medium-coarse-grained light green epidote sericitic		8	CTC 30	Porphyritic dyke, similar to 3.66-8.77m but could also be a crystal tuff. Upper contact ground to 90 degrees to c.a. by core rotation. Narrow interval of basalt between 15.70-15.90m. Sharp irregular contact @ roughly 30 degrees to c.a.	114948	0.001	-2
	17.00	19.00 Medium-coarse-grained orange grey epidote sericitic		10			114949	0.014	-2
	19.00	21.00		5			114950	-2	0.007
	21.00	23.00		5			114951	-2	0.008



## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
23.00	25.00	Medium-coarse-grained green-grey epidote chloritic		8			114952	-2	0.006
25.00	27.00			8			114953	-2	-2
27.00	29.00	Fine-coarse grained green-grey epidote chloritic		1			114955	0.005	-2
29.00	29.94			0			114956	-2	-2
29.94	406	<b>BASALT</b>							
29.94	33.30	Fine-coarse grained brecciated chloritic epidote	0.1	1	FLT	25 70 Major fault breccia zone w/ gouge. Rock is greenish black	114957	0.002	0.045
33.30	35.00	Fine-medium-grained green chloritic epidote	1.0	0		Grayish green porphyritic basalt, showing chlorite and epidote alteration	114958	0.004	0.049
35.00	37.00		1.0	4			114959	0.013	0.031
37.00	39.00	Fine-grained green massive chloritic epidote	1.0	0	CVN	10 10% calcite fracture filling, aphyric basalt.	114960	0.011	0.05
39.00	41.00	Fine-grained green massive chloritic	3.0	1	PVN	2	114961	0.022	0.091
41.00	43.00		2.0	1			114962	0.027	0.175
43.00	45.00	Fine-grained green-grey massive chloritic	4.0	0	18		114963	0.062	0.303
45.00	47.00	Fine-grained grey orange massive chloritic epidote	0.5	0	0		114964	0.021	0.126
47.00	49.00		2.0	0	19		114965	0.059	0.192
49.00	51.00	Fine-medium-grained grey orange chloritic	1.0	0			114966	0.032	0.147
51.00	53.00	Fine-medium-grained grey orange chloritic epidote	2.0	0			114967	0.016	0.055
53.00	55.00	Fine-coarse grained grey orange brecciated chloritic epidote	3.0	0			114968	0.022	0.109
55.00	57.00		2.0	0			114969	0.038	0.093
57.00	59.00	Fine-grained grey orange massive chloritic epidote	1.0	7			114970	0.029	0.082
59.00	61.00		1.0	1			114971	0.022	0.049
61.00	63.00		1.0	1			114972	0.04	0.091
63.00	65.00		1.5	0	1		114973	0.027	0.069
65.00	67.00		2.0	1	69		114974	0.031	0.078

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
67.00	69.00	Fine-grained grey orange massive chloritic epidote	1.5	1	2		114975	0.023	0.075
69.00	71.00	Fine-coarse grained grey orange brecciated chloritic epidote	1.0	0	9 FLT	45 10 Minor shear with gouge at 45 degrees to c.a.	114976	0.034	0.115
71.00	73.00	Fine-coarse grained grey orange chloritic epidote	0.1		3	Rare amygdule	114977	0.039	0.069
73.00	75.00	Fine-grained grey orange massive chloritic epidote	0.5		1		114978	0.019	0.057
75.00	77.00		0.5	0	46		114979	0.052	0.092
77.00	79.00	Fine-grained grey-green massive chloritic epidote	1.0	1	1		114981	0.039	0.056
79.00	81.00	Fine-coarse grained grey-green flow brecciated chloritic epidote	1.0		4		114982	0.044	0.058
81.00	83.00	Fine-medium-grained grey-green chloritic epidote	2.0		2		114983	0.057	0.091
83.00	85.00	Fine-coarse grained grey-green flow brecciated chloritic epidote	2.0		1		114984	0.023	0.046
85.00	87.00	Fine-medium-grained grey-green chloritic epidote	1.5	1	2		114985	0.03	0.051
87.00	89.00	Fine-coarse grained grey-green brecciated chloritic epidote	1.0		3		114986	0.047	0.078
89.00	91.00	Fine-medium-grained grey-green chloritic epidote	1.0		2		114987	0.072	0.095
91.00	93.00	Fine-coarse grained grey-green brecciated chloritic epidote	0.5		3		114988	0.05	0.062
93.00	95.00		0.5	0	6	Brecciated w/ white calcite cement (fault?)	114989	0.028	0.039
95.00	97.00		1.0	5	3		114990	0.146	0.36
97.00	99.00	Fine-medium-grained grey-green chloritic epidote	1.0	1	17 QVN	30 5 light gray quartz vein.	114991	0.145	0.424
99.00	101.00		1.0		3		114992	0.099	0.12
101.00	103.00		1.0		1		114993	0.047	0.057
103.00	105.00		0.1	1	1 FLT	50 2 Minor brittle fault with gouge.	114994	0.039	0.028
105.00	107.00		0.5	0	20		114995	0.037	0.027
107.00	109.00		0.5		7		114996	0.025	0.033
109.00	111.00		0.5	1	14		114997	0.055	0.059

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
111.00	113.00	Fine-medium-grained grey-green chloritic epidote	1.0		1		114998	0.157	0.305
113.00	115.00		0.5		7		114999	0.091	0.115
115.00	117.00		0.1	0	14		115000	0.05	0.039
117.00	119.00		0.1	2	51		117001	0.038	0.031
119.00	121.00		0.1		4 QVN	40 7 quartz epidote and pyrite vein	117002	0.039	0.03
121.00	123.00		0.5	0	12		117003	0.078	0.051
123.00	125.00		0.5	0	11		117004	0.098	0.054
125.00	127.00		0.1	1	3 GVN	0 3 3% graphite in veins / fracture filling.	117005	0.054	0.082
127.00	129.00			5	5 GVN	0 10 10% graphite in veins / fracture filling.	117007	0.004	-2
129.00	131.00		0.1	0.1	3	5	117008	0.103	0.161
131.00	133.00			2	17		117009	0.038	0.036
133.00	135.00			2	5		117010	0.051	0.055
135.00	137.00			1	2		117011	0.054	0.024
137.00	139.00		0.5	1	7		117012	0.124	0.582
139.00	141.00	Fine-grained grey-green massive chloritic epidote	0.1	2	26		117013	0.058	0.064
141.00	143.00		0.1	1	1		117014	0.044	0.111
143.00	145.00		0.5	0.1	1	1	117015	0.063	0.063
145.00	147.00		0.1	3	6		117016	0.043	0.054
147.00	149.00	Fine-medium-grained grey-green chloritic epidote	0.5	0	1		117017	0.079	0.076
149.00	151.00		0.1	1	1		117018	0.059	0.069
151.00	153.00		2.0	1	5		117019	0.056	0.057
153.00	155.00		0.5	1	10 QVN	20 2	117020	0.062	0.064
155.00	157.00	Fine-coarse grained grey-green flow brecciated chloritic epidote	0.1	0.1	1	7	117021	0.075	0.193
157.00	159.00		0.5		3		117022	0.077	0.123
159.00	161.00		0.5	1	21		117023	0.087	0.125
161.00	163.00		0.5	3	7		117024	0.046	0.063

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
163.00	165.00	Fine-medium-grained grey-green chloritic epidote	0.1	5	197		117025	0.093	0.217
165.00	167.00		0.1	0.1	1	11	117026	0.099	0.173
167.00	169.00	Fine-medium-grained grey-green chloritic	0.1	1	55		117027	0.035	0.071
169.00	171.00		0.5	1	52		117028	0.035	0.05
171.00	173.00		0.1	1	51		117029	0.06	0.091
173.00	175.00		0.1	1	52	QVN 15 3 qtz-mt-carbonate vein	117030	0.052	0.108
175.00	177.00		0.1	1	39	QVN 15 4	117031	0.045	0.082
177.00	179.00		0.1	3	166	QVN 0 4	117033	0.053	0.087
179.00	181.00		0.1	0	34	QVN 3 qtz-carb veins	117034	0.055	0.23
181.00	183.00	Fine-medium-grained grey-green flow brecciated chloritic	0.1	1	38		117035	0.043	0.117
183.00	185.00	Fine-medium-grained grey-green chloritic epidote	0.1	0	7	QVN 1 qtz-mt-py-vein	117036	0.04	0.081
185.00	187.00		0.5	1	30		117037	0.094	0.173
187.00	189.00	Fine-medium-grained grey-green chloritic	0.1	1	43		117038	0.037	0.054
189.00	191.00		0.1	2	85		117039	0.058	0.076
191.00	193.00	Fine-medium-grained grey-green chloritic epidote	0.1	2	35		117040	0.088	0.131
193.00	195.00		0.5	4	29		117041	0.069	0.12
195.00	197.00		0.1	1	68		117042	0.118	0.194
197.00	199.00		0.1	5	24		117043	0.145	0.325
199.00	201.00		0.1	0.1	5	16	117044	0.13	0.32
201.00	203.00		0.1	3	35		117045	0.173	0.385
203.00	205.00	Fine-medium-grained grey-green chloritic	0.1	1	6	Slight increase in zeolite and carbonate filled fracture density (1-3%)	117046	0.085	0.2
205.00	207.00		0.1	1	39		117047	0.056	0.13
207.00	209.00	Fine-medium-grained grey-green chloritic epidote	0.1	1	54		117048	0.037	0.056
209.00	211.00		0.1	0.1	1	40	117049	0.056	0.08
211.00	213.00		0.1	0.1	1	50	117050	0.107	0.298

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
213.00	215.00	Fine-medium-grained grey-green chloritic	0.1	0.1	1	34	117051	0.026	0.036	
215.00	217.00	Fine-medium-grained grey-green chloritic sericitic	0.1	0.1	3	23	117052	0.13	0.263	
217.00	219.00		0.1	0.1	1	31	117053	0.099	0.235	
219.00	221.00		0.1	0.1	1	28	117054	0.203	0.395	
221.00	223.00		0.1	0.1	1	2 QVN	5 5	117055	0.194	0.529
223.00	225.00	Fine-medium-grained grey-green chloritic	0.5		2	77 QVN	30 7	117056	0.104	0.384
225.00	227.00	Fine-medium-grained grey-green chloritic sericitic	0.1		1	54 FLT	30 4	117057	0.129	0.257
227.00	229.00	Fine-medium-grained grey-green chloritic epidote	0.1		1	42		117059	0.041	0.068
229.00	231.00		0.5		1	40		117060	0.041	0.075
231.00	233.00	Fine-medium-grained grey-green chloritic sericitic	0.5		3	165		117061	0.148	0.297
233.00	235.00	Fine-coarse grained grey-green brecciated chloritic sericitic	1.0		1	2		117062	0.226	0.643
235.00	237.00		1.0	0.1	2	70		117063	0.083	0.398
237.00	239.00	Fine-coarse grained grey-green brecciated chloritic	0.1		1	12 QVN	50 40	117064	0.07	0.445
239.00	241.00	Fine-medium-grained grey-green chloritic epidote	0.1	0.1	2	13		117065	0.119	0.312
241.00	243.00	Fine-coarse grained grey-green flow brecciated chloritic epidote	0.1		1	41		117066	0.088	0.255
243.00	245.00		0.5	0.1		0 QVN	35 3	117067	0.101	0.368
245.00	247.00	Fine-medium-grained grey-green chloritic epidote	7.0	0.5		1 PVN	20 5	117068	0.225	0.484
247.00	249.00	Fine-coarse grained grey-green brecciated chloritic epidote	4.0	0.1	1	52 FLT	5 5	117069	0.081	0.233
249.00	251.00	Fine-medium-grained grey-green chloritic	0.1	0.1	1	49		117070	0.083	0.227
251.00	253.00		0.1	0.1	1	15		117071	0.063	0.075
253.00	255.00	Fine-coarse grained grey-green brecciated chloritic	0.1	0.1	1	20		117072	0.076	0.141

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
255.00	257.00	Fine-medium-grained grey-green chloritic	0.5	2	20 QVN	2 qtz veins	117073	0.072	0.161	
257.00	259.00		0.1	0.1	1	23	117074	0.102	0.265	
259.00	261.00	Fine-medium-grained grey-green chloritic epidote	0.5		2		117075	0.061	0.098	
261.00	263.00	Fine-coarse grained grey-green brecciated chloritic	0.5	0.1	6		117076	0.107	0.181	
263.00	265.00		0.1		7		117077	0.079	0.128	
265.00	267.00	Fine-coarse grained grey-green brecciated chloritic epidote	0.5		5		117078	0.15	0.255	
267.00	269.00	Fine-medium-grained grey-green chloritic epidote	0.1	0.1	1	80	117079	0.156	0.363	
269.00	271.00	Fine-medium-grained grey-green chloritic	0.1	0.1	1	34	117080	0.074	0.141	
271.00	273.00	Fine-medium-grained grey-green chloritic sericitic	0.1	0.1	1	21	117081	0.355	0.808	
273.00	275.00	Fine-medium-grained grey-green chloritic epidote	0.1		3		117082	0.131	0.309	
275.00	276.80		0.1	0.1	2	168 QVN	5 qtz veins	117083	0.106	0.259
276.80	279.00	Fine-medium-grained grey-green chloritic	2.0	0.1	0	8 QVN	3	117085	0.256	0.657
279.00	281.00		0.1	0.1	1	23	117086	0.219	0.839	
281.00	283.00		0.1	0.1	0	12 QVN	4 qtz veins	117087	0.184	0.347
283.00	285.00		0.1	0.1	4		117088	0.199	0.693	
285.00	287.00	Fine-coarse grained grey-green brecciated chloritic epidote			3		117089	0.131	0.301	
287.00	289.00	Fine-medium-grained grey-green chloritic epidote	0.1	0.1	5	4 QVN	6 qtz veins	117090	0.329	0.704
289.00	291.00		0.1	1	31		Augite phenocryst percentage increases to 10-45% (porphyry)	117091	0.114	0.227
291.00	293.00		0.1	1	48		117092	0.082	0.155	
293.00	295.00		0.1	1	31		117093	0.059	0.111	
295.00	297.00		0.1	0.1	1	46	117094	0.037	0.074	
297.00	299.00		0.1	1	55		117095	0.052	0.087	
299.00	301.00		0.1	2	98		117096	0.085	0.203	

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
301.00	303.00	Fine-medium-grained grey-green chloritic epidote	0.1 0.5	1	48		117097	0.068	0.298
303.00	305.00		0.1	1	34	Geologist Change E.R. out on break on Oct. 2/02 Log completed by J.M.	117098	0.066	0.208
305.00	306.93	Fine-medium-grained medium grey chloritic silicic	0.1	18	QZCHV 0 15	increased qtz/zeolite veining assoc. with hem. Btwn 305.79-306.38m. Rare augite phenocrysts visible weak patchy epidote. alteration..	117099	0.074	0.158
306.93	308.94		0.5	18	QZCHV 60 15	local increase in augite phenocrysts. Weak patchy epidote. alteration. Qtz/zeolite veining assoc. locally with red hem. epidote alt between 307.16-307.52m and between 307.95-308.22m. Py aggregates assoc with epidote alteration at about 308.22m.	117100	0.08	0.211
308.94	310.00	Fine-medium-grained medium green chloritic silicic	1.0	19	QZCHV 0 7	Diss py assoc with qtz and weak epidote alt btwn 308.35-309.40m. Augite phenocrysts. Qtz/zeo/hem btwn 308.94-309.03m. Decrease in veining from 309.40-310.00m. Diss py in flow barely visible.	117101	0.039	0.444
310.00	312.06		0.5	2	53 QZCHV 80 10	Increase in augite and plagioclase phenocrysts btwn 310.56-310.83m. Massive mt and stringer btwn 310.66-310.83m. Local in qtz/zeo veining. Patchy weak to moderate epidote btwn 310.83-311.03m assoc with rare py aggregates at 311.51- 311.72m	117102	0.04	0.628
312.06	314.00		0.5	3	52 QZCHV 70 10	Qtz/zeo veining at about 313.39m assoc with weak epidote alt. Patchy weak epidote alteration. Augite phenocrysts. Vuggy zeo veining with zeo crystals at about 313.80m. Augite and plagioclase phenocrysts btwn 313.68-313.80m. BKN zones. Massive mt units in flow.	117103	0.056	0.156
314.00	316.00			44	QZCHV 5 10	Augite phenocrysts visible locally. Local epidote stringer assoc. locally with qtz/zeo veining. Massive mt units.	117104	0.04	0.089
316.00	318.00	Fine-medium-grained grey-green chloritic silicic	1.0 0.1	2	2 QZCHV 10 15	Weak potassic and patchy epidote alterations btwn 316.36-316.60m assoc. with smoky grey qtz vein and mt stringers and diss py. Py aggregates assoc. with epidote alt and qtz/zeo/cal veining +/- rare cpy. Qtz/zeo btwn 316.24-316.73 and hem.	117105	0.21	0.421

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
318.00	320.00	Fine-medium-grained grey-green chloritic silicic	2.0	1	37 QZCHV 80 15	Increase in augite and plagioclase phenocrysts btwn 318.16-318.60m. Zeo flooding btwn 318.72-318.87m assoc. with mt and epidote aggregates. Py and cpy aggregates at 318.97m assoc. with epidote alt. Massive py aggregates assoc with chl rich portions btwn 319.68-319.88m.	117106	0.076	0.516
320.00	322.00				47 QZCHV 5 15	Increase in augite and plagioclase phenocrysts btwn 320.00-321.49m assoc with qtz/zeo/cal veining. Weak patchy pot. Alt. Local vuggy flow with zeo veining btwn 321.45-321.49m. Weak epidote alt in stringer form locally.	117107	0.08	0.167
322.00	324.00	Fine-medium-grained medium green chloritic silicic	1.0	2	15 QZCHV 70 10	Increase in augite phenocrysts 30-50% in chl/silica/mafic basalt flow. Qtz/zeo/mt/hem veining btwn 323.00-323.51m. Smokey grey qtz vein btwn 323.51-323.72m assoc with mt, epidote, pot. Alt and dissem py.	117108	0.137	0.285
324.00	326.00		1.0	0.1	5 13 QZCHV 30 7	Augite phenocrysts as above. Diss py in flow. Massive mt flow. Qtz/mt vein btwn 324.68-324.95m assoc with weak patchy epidote alteration and diss py and aggregates. Cpy aggregates at about 325.02m. Increase in zeo/epidote veining btwn 325.23-325.49m assoc. with diss py and local pot alt. Massive mt btwn 325.40-325.66m. Rare hem lining, it's at about 325.90-326.00m.	117109	0.171	0.366
326.00	328.00		0.5	5	24 QZCHV 90 10	Massive mt unit btwn 327.19-327.51m. Joint planes lined with hem. Augite phenocrysts visible locally. Local increase in qtz/zeo veining assoc with weak epidote stringers. Rare diss py.	117111	0.11	0.212
328.00	330.00		1.0	0.1	2 53 QZCHV 5 15	Weal patchy pot. Alt. Qtz/zeo/epidote veining. Massive mt units. Augite phenocrysts in flow. Rare py and cpy aggregates assoc with qtz/cal/epidote/zeo veining at about 329.30m. Pot alt assoc epidote mt btwn 329.43-329.66m. Massive mt units btwn 329.77-329.80m assoc with rare pot. alt.	117112	0.067	0.181
330.00	332.00		1.0	1	12 QZCV 30 10	Augite phenocrysts visible locally. Mt stringers assoc. with qtz/zeo/cal at about 33.17m. BKN in places. Increase in qtz/zeo/cal vein btwn 331.75-331.95m and 330.90-330.96m.	117113	0.09	0.196



**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
332.00	334.00	Fine-medium-grained medium green chloritic silicic	1.0	1	25 QZCV 30 15	Weak epidote alteration, massive and confined to stringer cross cutting qtz/zeo/cal veining. Qtz/cal vein btwn 333.06-333.16m enveloped with weak pot alteration. Mt aggregates assoc. with qtz/zeo vein at 332.19m. Increase in augite phenocrysts at about 333.65m.	117114	0.059	0.222
334.00	336.00		1.0	1	38 QZCV 70 10	Amy. Infilled with qtz in pot alt zone btwn 334.06-334.18m. epidote alteration assoc. with qtz/zeo veining btwn 334.79-334.85m and 335.47-335.54m assoc. with py and mt aggregates. Diss py vein at about 335.34m. Augite phenocrysts visible locally. Hem lined joints.	117115	0.069	0.171
336.00	338.00		1.0	0.5	1 28 QZCHV 70 10	Cpy assoc. with py aggregates at about 337.62m and 337.90. Qtz/zeo/cal veining assoc. with weak localized epidote alteration. Hem lined joint. Planes faint brown colour at about 336.40m. Possibly sericite +/- fine biotite. Py and cpy aggregates btwn 337.62-338.00m	117116	0.2	0.353
338.00	340.00		1.0	0.5	3 22 QZCHV 60 7	Augite phenocrysts visible locally. Diss py locally assoc. with epidote alt. Massive mt in flow and stringer form. Local increase in qtz/zeo veining. Py and cpy aggregates at 339.36m.	117117	0.162	0.36
340.00	342.00		1.0	0.1	1 20 QZCHV 70 10	Local increase in qtz/zeo/cal veining. Augite and plagioclase phenocrysts visible locally. Veining assoc. with weak epidote alt. Mt aggregates assoc. qtz/cal veining at 340.86m.	117118	0.126	0.218
342.00	344.00		1.0	0.5	26 QZCHV 60 15	Qtz locally btwn 343.25-343.60m. Patchy weak epidote alteration. Hem lining joint plane. Discontinuous qtz/cal stringers visible locally. Augite and plagioclase phenocrysts visible locally. Rare cpy aggregates assoc. with epidote.	117119	0.081	0.145
344.00	346.00		1.0	0.1	3 44 QZCHV 40 10	Massive mt present in flow. Qtz/zeo/cal stringers. Weak epidote alteration present as stringers locally. Augite and plagioclase phenocrysts visible locally. Local increase in zeo veining btwn 345.10-346.00m	117120	0.048	0.076
346.00	348.00		1.0	0.1	3 38 QZCV 80 10	Massive mt present as above. epidote/Qtz/zeo veining. Smokey grey qtz vein at about 346.34m and at 346.21m assoc. with mt aggregates. Pot alterations btwn 347.31-347.57m assoc. with qtz/zeo +/- mt aggregates and epidote stringers. Py and cpy aggregates in flow assoc. with qtz/cal and weak epidote alt.	117121	0.109	0.23

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
348.00	350.00	Fine-medium-grained medium green chloritic silicic	3.0 0.5	4	9 QZCV 20 15	Qtz veining btwn 348.11-348.29m assoc. with epidote stringer and py/cpy aggregates at about 349.27m and between 348.69-348.78m assoc. with py aggregates and btwn 349.06-349.15m assoc. with py and cpy aggregates. Weak epidote alteration in stringer form. Brecciated smoky grey qtz vein btwn 349.88-350.00m.	117122	0.096	0.382
350.00	352.00		2.0	3	27 QZCHV 80 7	Moderate to highly siliceous, 2 degree alteration between 350.00-350.15m. BKN from 349.97-350.15m. Hem lined joints. Increased qtz/zeo/cal between 351.00-351.54m. Augite phenocrysts visible locally. Massive mt units. Diss py.	117123	0.158	0.32
352.00	354.00		2.0	4	45 QZCHV 5 10	Massive mt inflow. Augite and plagioclase phenocrysts locally. Qtz/zeo/cal stringers, weak epidote alteration present as stringers locally. Hem lined joints. Mt stringers between 352.75-352.80m. Diss py assoc. with veining locally.	117124	0.058	0.127
354.00	356.00		0.5	2	19 QZCHV 0 7	Augite and plagioclase phenocrysts visible locally. Very weak patchy pot alt. Qtz/zeo/cal veining assoc. with weak epidote veining. Increased qtz/zeo veining btwn 354.92-355.24m. Increased epidote alt and qtz/zeo/mt veining between 353.61-355.70m. Patchy weak epidote alteration from 355.70-356.00m in assoc. with massive mt.	117125	0.047	0.106
356.00	358.00		0.5 0.1	3	31 QZCV 30 10	Augite phenocrysts visible locally. Weak patchy epidote alteration between 356.00-356.46m and between 356.69-357.30m assoc. with qtz/zeo veining. Massive mt. Rare cpy assoc. with py in qtz/cal/epidote veining between 356.00-356.03m. Local increase in qtz/zeo veining between 356.62-357.20m.	117126	0.033	0.07
358.00	360.00		1.0	2	7 QZCV 50 15	Weak to moderate epidote alteration between 358.27-358.51m and 359.48-359.60m. Vuggy flow between 358.00-358.05m. Augite phenocrysts. Fault plane at 358.35m filled with hem gouge material. Py aggregates in flow. Mt stringers.	117127	0.182	0.361
360.00	362.00		1.0	1	37 QZCV 0 7	Massive mt units. Smokey grey qtz vein between 360.08-360.13m. Py, cpy, epidote, qtz, cal vein at about 361.07-361.80m. Assoc. with mt aggregates. Augite phenocrysts visible locally.	117128	0.066	0.147

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
362.00	364.00	Fine-medium-grained medium green chloritic silicic	1.0	3	96 QZCV 80 10	Augite and plagioclase phenocrysts. Qtz/cal stringers assoc. with epidote, zeo, py, and hem locally. plus mt veining. Qtz/cal/mt veining between 363.73-363.93m.	117129	0.127	0.162
364.00	366.00		0.5	3	33 QZCV 80 5	Qtz/cal/mt veining between 364.09-364.13m. Augite phenocrysts visible locally. Massive mt in flow. Diss py.	117130	0.102	0.221
366.00	367.95		0.5	2	34 QZHCV 70 7	Augite phenocrysts visible locally associated with quartz zeolite veining. Weak patchy epidote alteration. Hematite veining associated with calcite quartz. Fine disseminated pyrite. Massive Magnetite in flow.	117131	0.101	0.273
367.95	370.00		0.5	1	19 QZCV 5 7	Very weak patchy epidote alterations in flow and association with quartz/ calcite/ zeolite veining at about 369.80m. Vuggy flow between 369.22-369.45m in association with weak silicification. Fine disseminated py - rare. Rare magnetite.	117132	0.138	0.288
370.00	372.00			1	39 QZCV 70 7	Augite and plagioclase phenocrysts visible locally. Weak epidote. Quartz/ zeolite/ calcite veining and epidote alteration between 370.56-370.86m and 371.20-371.80m. Vuggy associated with weak epidote alteration and magnetite stringers. Magnetite stringers enveloped with quartz/ calcite veining.	117133	0.183	0.348
372.00	374.00		1.0	0.1	1 54 QZHCV 5 7	Augite phenocrysts barely visible. Weak patchy epidote alterations. Vuggy zeolite veining at about 372.72m. Quartz/ calcite/ zeolite vein between 373.19-373.37m associated with weak epidote, py, and cpy aggregates. Massive magnetite.	117134	0.064	0.118
374.00	376.00		1.0	0.1	3 12 QZHCV 0 5	Augite phenocrysts and epidote alteration as above. Massive magnetite units. Quartz/ zeolite/ calcite veining associated with hematite veining. Py and cpy stringers at about 374.15m.	117135	0.177	0.355
376.00	378.00		1.0	0.1	3 18 QZCV 0 7	Locally porphyritic with augite phenocrysts visible. Localized epidote alterations weak to moderate between 376.71-376.80m. Py aggregates and disseminated quartz/ calcite veining between 376.80-376.90m	117137	0.077	0.22
378.00	380.00		1.0	0.1	2 22 QZCV 0 7	Massive magnetite and stringers. Weak epidote alteration. Increased quartz/ calcite veining between 378.72-379.00m and 379.18-379.65m. Augite phenocrysts visible locally.	117138	0.092	0.25

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
380.00	382.00	Fine-medium-grained green chloritic silicic medium	1.0 0.1	1 38	QZCV 5 10	Augite phenocrysts barely visible. Weak patchy epidote alterations. Cpy aggregate at about 381.40m. Rare zeolite/ hematite vein. Massive magnetite.	117139	0.039	0.139
382.00	384.00		2.0 0.5	1 16	QZCV 0 10	Py and cpy stringers at about 382.45m associated with quartz/ calcite veining. Quartz/ calcite/ magnetite/ epidote veining. Massive magnetite. Weak epidote alteration. Increase in quartz/ calcite vein at about 382.50m.	117140	0.222	0.729
384.00	386.00			2	QCV 5 7	Dark green, medium to high chloritic portion associated with an increase in quartz/ calcite veining and joint plane lined by hematite. Augite phenocrysts visible locally. Massive magnetite.	117141	0.07	0.146
386.00	388.00		2.0	2	QCV 5 10	Light brown portion between 386.49-387.09m, possibly weak sericite association increased with disseminated py and weak epidote alteration plus massive magnetite stringers.	117142	0.103	0.27
388.00	390.00		1.0 0.1	3	QZCV 90 10	Augite and plagioclase phenocrysts visible locally. Massive magnetite in flow. Quartz/ calcite veining associated with epidote alterations. Py aggregates. Zeolite veining associating locally with quartz/ calcite veining. Py association with rare cpy aggregates.	117143	0.085	0.302
390.00	392.00	Fine-medium-grained green chloritic silicic light green	1.0	10	QZCV 60 15	Increase magnetite aggregates and massive units in flow from 391.18-392.36m, associated with weak to moderate epidote alteration cut by late stage zeolite veining. Locally vuggy in flow. Augite and plagioclase phenocrysts visible. Rare py aggregates and disseminations.	117144	0.099	0.19
392.00	394.00	Fine-medium-grained green chloritic silicic medium		3	QZCV 90 10	Vuggy flow between 394.00-394.16m. Local increase in zeolite veining. Vuggy between 392.62-392.66m and at 392.92m. Augite and plagioclase phenocrysts visible locally. Massive magnetite. Weak patchy epidote alteration.	117145	0.031	0.055
394.00	396.00			3	QZCV 70 5	Weak to moderate epidote alteration. Quartz/ calcite/ zeolite veining. Massive magnetite. Localized weak potassic alteration. Vuggy flow described in sample above.	117146	0.03	0.065
396.00	398.00			4	QZCV 5 7	Local increase in epidote alteration patchy. Weak to moderate alteration. Weak patchy potassic alteration. Massive magnetite units in flow.	117147	0.054	0.13

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
398.00	400.00	Fine-medium-grained green brown chloritic	2.0	0.1	5	QZCV 90 15	Vuggy quartz/ calcite veining between 398.93-399.10m associated with zeolite in places. Plagioclase and augite phenocrysts also visible. Weak patchy epidote alteration. Py and cpy stringers.	117148	0.044	0.314
400.00	402.00		2.0	0.5	10	QZCV 60 15	Weak patchy epidote alteration. Massive magnetite units in flow associated with smoky grey quartz veining. Disseminated py and aggregates. Brown patches of weak sericite +/- fine biotite alteration. Augite phenocrysts local. Vuggy in places. Quartz/ calcite/ zeolite vein at about 401.72-401.77m.	117149	0.286	0.62
402.00	404.04		2.0	0.1	5	QZCV 70 7	Faint brown patchy due to weak sericite +/- fine biotite alterations. Augite and plagioclase phenocrysts. Massive magnetite units. Weak epidote alteration throughout flow associated with disseminating py aggregates +/- cpy.	117150	0.134	0.341
404.04	406.00		1.0		3	QZCV 0 15	Increased quartz/ zeolite/ calcite veining. Brecciated, flow breccia. Vuggy between 405.59-405.69m. Weak patchy epidote and pot alterations. Faint brown colour as above. Py aggregates visible in places.	117151	0.132	0.283
406	419.11	<b>BASALT FLOW</b>								
406.00	408.13	Fine-medium-grained medium green chloritic epidote	3.0	0.5	3	QZCV 80 7	Increased epidote alteration weak to moderate. Potassic altered plagioclase, increased diss and aggregates. Py and cpy in places associated locally with quartz vein at about 407.95m. Massive magnetite. Augite phenocrysts barely visible locally.	117152	0.311	0.9
408.13	410.00	Fine-medium-grained medium green chloritic silicic	1.0		1	QZCV 5 7	Augite phenocrysts visible locally. Weak patchy epidote alteration. Quartz/ calcite veining. Massive magnetite. Faint brown portions possibly weak potassic alteration.	117153	0.052	0.112
410.00	412.00		1.0		1	QZCV 90 7	Local increase in quartz/ zeolite/ calcite veining between 410.28-410.50m. Weak patchy epidote alteration. Disseminated py. Augite and plag phenocrysts visible locally. Moderate epidote alteration between 411.52-411.62m and at 411.77m.	117154	0.053	0.126
412.00	414.00		2.0	0.1	1	QZCV 0 20	Weak to moderate patchy epidote alteration. Quartz vein between 412.80-413.05m. Vuggy locally, magnetite stringers. Augite phenocrysts visible barely. Disseminated py and aggregates locally associated with cpy. Weakly brecciated locally.	117155	0.171	0.434

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
414.00	416.00	Fine-medium-grained medium green chloritic silicic	2.0	0.1	QZV 0 7	Weak patchy epidote alteration. Augite phenocrysts. Disseminated py and aggregates, mainly fine disseminated.	117156	0.184	0.438
416.00	418.00		3.0	0.1	QZCV 5 10	Augite phenocrysts. Weak to moderate patchy epidote alteration. Localized discontinuous stringers associated with zeolite vein. Fine disseminated py. Quartz/ zeolite veining between 416.00-416.15m and 417.00-417.18m associated with py aggregates. Quartz/ zeolite veining between 417.49-417.86m associated with py dissemination and aggregates. Slight brown patchy colour due to weak sericite +/- fine biotite.	117157	0.182	0.437
418.00	419.11	Fine-medium-grained medium green chloritic epidote	1.0		QZCV 40 15	Quartz/ zeolite veining associated with magnetite locally. Weak epidote alteration. Augite phenocrysts visible locally. Weakly silicified. Weak to moderate epidote.	117158	0.113	0.396
419.11	424	<b>BASALT FLOW BRECCIA</b>							
419.11	420.60	Fine-medium-grained light green chloritic silicic	2.0		QZCV 40 3	Moderately silicified. Disseminated py and aggregates. Less veining of quartz/ zeolite. Weak epidote alteration. Brecciated locally.	117159	0.018	0.134
420.60	422.00		3.0	1	QZCV 20 5	Flow breccia. Moderate epidote alteration. Increased py aggregates and dissemination associated with magnetite aggregates. Augite phenocrysts.	117160	0.017	0.132
422.00	424.00	Fine-medium-grained light green chloritic epidote	5.0		QZCV 30	Increased disseminated py and aggregates in host of breccia fragments are weakly to not mineralized. Weak to moderate epidote alteration. Brecciated flow texture visible locally. Amygdules visible in places. Quartz/ pyrite/ epidote/ cal/ veining at about 422.75	117161	0.043	0.262
424	428	<b>ANDESITE FLOW BRECCIA</b>							
424.00	426.00	Fine-medium-grained light green chloritic silicic	6.0		5 QZCV 5 7	Brecciated increase py dissemination and aggregates in host, associated with epidote alteration weak. Fragments associated with weak to moderate py mineral and no epidote alteration. Quartz/ zeolite vein between 424.41-425.23m. BKN zone. Very weak patchy brown colour possibly due to weak sericite +/- fine biotite alteration. Possibly intermediate andesitic flow.	117163	0.042	0.136
426.00	428.00	Fine-medium-grained light green chloritic sericitic	5.0		4 QZCV 10 7	Brecciated texture, py mineralization and epidote alteration as above. Weak patchy pot alteration between 427.28-427.44m. Brown colour due to weak sericite +/- fine biotite alt patches. Augite phenocrysts. Local quartz/ zeolite/ calcite vein from 426.74-426.82m.	117164	0.095	0.199

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
428	430	<b>ANDESITE FLOW</b>							
428.00	430.00	Fine-medium-grained light green chloritic sericitic	3.0	1	0 QZCV 5 10	Brown colour as above associated with our increase in py. Quartz/ K-feldspar/ magnetite veining from 428.32-428.42m. Quartz between 429.02-429.10m. Augite phenocrysts. Weak epidote alteration. Augite phenocrysts visible, possibly basalt and andesite flows. Rare magnetite aggregates in association with quartz veining.	117165	0.067	0.129
430	433.02	<b>ANDESITE FLOW BRECCIA</b>							
430.00	432.00	Fine-medium-grained light green chloritic silicic	2.0	1	3 QKVN 80 5	Augite phenocrysts, brecciated texture in places. Magnetite aggregates associated with quartz/ K-feldspar between 430.55-430.57m and py aggregates at 430.83m. Weak epidote alteration.	117166	0.056	0.066
432.00	433.02	Fine-medium-grained light green chloritic epidote	2.0	1	4 QVN 70 5	Brecciated texture, quartz/ magnetite vein at 432.45m enveloped with pot alteration between 432.45-433.02m.	117167	0.034	0.04
433.02	435	<b>ANDESITE FLOW</b>							
433.02	435.00	Fine-medium-grained medium brown sericitic silicic	6.0	2	160 QKVN 60 15	Increased quartz veining between 433.02-433.64m. Brown colour due to sericite +/- fine biotite alteration associated with epidote alteration. Quartz/ magnetite veining associated with py dissemination and aggregates. Protolith overprinted.	117168	0.075	0.103
435	437	<b>ANDESITE FLOW BRECCIA</b>							
435.00	437.00	Fine-medium-grained green brown sericitic chloritic	6.0	1	3 QZCV 30 7	Brown patchy colour due to weak sericite +/- fine biotite alteration. Increase in disseminating py and aggregates. Local potassic altered portions and felsic, white portions. Quartz/ zeolite veining, generally barren. Weak epidote alterations.	117169	0.066	0.11
437	440.67	<b>ANDESITE FLOW</b>							
437.00	439.00	Fine-medium-grained green brown sericitic chloritic	6.0		2 QZCV 5 7	Brown colour as above, dark brown portions of moderate to high sericite +/- fine biotite alterations associated with disseminated py and aggregates plus barren quartz vein. Fragmented, light green between 437.26-437.84m.	117170	0.076	0.127
439.00	440.67		5.0		0 QZCV 3 10	Brown colour and disseminated py and aggregates as above, associated locally with weak epidote alteration. Barren quartz/ zeolite vein between 439.87-440.22m, vuggy locally and between 440.52-440.57m associated with epidote alterations.	117171	0.073	0.133

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
440.67	441.52	<b>ANDESITE FLOW BRECCIA</b>							
440.67	441.52	Fine-medium-grained grey brown chloritic sericitic	4.0	11	QZCV 80 7	Fragmental quartz, flow fragments, possibly insitu breccia. Brown colour due to weak sericite +/- fine biotite. Weak epidote alteration associated with py aggregates and disseminated quartz/ zeolite veining. BKN locally.	117172	0.076	0.143
441.52	442.36	<b>BASALT FLOW</b>							
441.52	442.36	Fine-medium-grained medium green chloritic sericitic	3.0	2	QZCV 80 10	Massive magnetite between 441.90-442.03m. Augite phenocrysts. epidote weak to moderate alteration. Brown between 442.13-442.36m possibly sericite +/- fine biotite alteration associated with an increase of disseminated py and aggregates. Increased zeolite/ quartz vein between 441.52-441.82m.	117173	0.078	0.135
442.36	443.81	<b>BASALT FLOW BRECCIA</b>							
442.36	443.81	Fine-medium-grained light green chloritic silicic	5.0	1	QCV 80 7	Weak patchy brown colour due to weak sericite +/- fine biotite alteration associated with increased disseminated py and aggregates. Brecciated Augite phenocrysts visible locally. Pot alteration between 443.64-443.75m.	117174	0.036	0.049
443.81	447	<b>BASALT FLOW</b>							
443.81	445.47	Fine-medium-grained medium brown silicic sericitic	6.0	20	220 QZV 5 7	Increased magnetite massive and stringers. Brown colour possibly medium to high sericite +/- fine biotite alteration associated with py aggregates and magnetite aggregates and epidote alteration with quartz veining in places. Quartz/ zeolite veining at shallow angles 3-5 core axis. Light grey quartz rich.	117175	0.089	0.279
445.47	447.00	Fine-medium-grained green brown chloritic silicic	5.0	2	24 QKZV 80 10	Augite phenocrysts visible locally. Quartz/ magnetite stringers between 446.89-447.00m. Brown coloured patchy associated with py aggregates. Possibly weak sericite +/- fine biotite alteration. Patchy pot alteration.	117176	0.087	0.184
447	453	<b>BASALT FLOW BRECCIA</b>							
447.00	449.00	Fine-medium-grained green brown chloritic sericitic	7.0	0	8 QKZV 90 7	Augite and plagioclase phenocrysts between 447.55-447.68m. Weak brecciated texture. Quartz/ epidote/ pot veining. Rare cpy association with disseminated py. Quartz/ K-feldspar at 448.10m.	117177	0.063	0.1



**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
449.00	451.00	Fine-medium-grained green brown chloritic sericitic	7.0	2	QKZV 80 5	Brecciated. Augite and plagioclase phenocrysts. Disseminated py and aggregates. Intrusive structure between 450.84-450.94m associated with quartz/ zeolite vuggy veining.	117178	0.037	0.058
451.00	453.00		7.0	1	5 QKVN 70 7	Brown sericite +/- fine biotite. Augite phenocrysts. Disseminated py brecciated locally 451.71-451.94m. Quartz/ epidote vein at about 452.25m. Quartz/ K-feldspar vein between 451.71-451.74m enveloped with pot alternation. Brecciated locally magnetite aggregates.	117179	0.126	0.231
<b>453</b>	<b>454</b>	<b>BASALT FLOW</b>							
453.00	454.00	Fine-medium-grained medium green chloritic silicic	7.0	2	14 QVN 0 7	Magnetite/ quartz veining associated with py veining between 453.24-453.70m. Disseminated and aggregate py. Weak epidote alteration.	117180	0.091	0.119
<b>454</b>	<b>460</b>	<b>BASALT FLOW BRECCIA</b>							
454.00	456.00	Fine-medium-grained medium green chloritic silicic	5.0	1	10 QZV 90 10	Slightly brecciated, flow breccia increase in quartz/ zeolite veining between 453.28-453.45m vuggy. Faint local brown sericite +/- fine biotite alteration. Augite phenocrysts visible locally. Weak epidote alteration associated with py aggregates. Minor magnetite aggregates associated with quartz veining.	117181	0.055	0.099
456.00	458.00	Fine-medium-grained green brown chloritic silicic	5.0	1	3 QZCV 0 10	Augite phenocrysts visible locally. Py aggregates and dissemination. Quartz/ K-feldspar veining. Quartz/ magnetite veining at +/- 80 degrees to core axis. Local increase in quartz/ zeolite veining. Faint brown colour due to weak sericite +/- fine biotite alteration. Local breccia texture.	117182	0.066	0.13
458.00	460.00	Fine-medium-grained medium green chloritic silicic	7.0		30 QZV 30 5	Brecciated locally. Augite phenocrysts. Local increase in py dissemination and aggregates. Weak patchy epidote alteration.	117183	0.046	0.087
<b>460</b>	<b>462</b>	<b>BASALT FLOW</b>							
460.00	462.00	Fine-medium-grained medium green chloritic silicic	10.0		22 QZCV 80 10	Increased quartz/ calcite veining between 460.09-460.74m. Brown colour due to weak sericite +/- fine biotite alteration. Weak patchy epidote alteration. Augite phenocrysts visible locally. Quartz veining associated with magnetite aggregates.	117184	0.058	0.142
<b>462</b>	<b>464</b>	<b>BASALT FLOW BRECCIA</b>							

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
462.00	464.00	Fine-medium-grained medium green chloritic silicic	10.0 0.3	2 19	QZCV 0 5	Brown colour due to weak sericite +/- fine biotite alteration. Pot alteration. Quartz/ calcite vein at 462.38m vuggy. Weak epidote local fragmental possibly brecciated texture. Rare cpy association with py aggregates.	117185	0.06	0.144
464		<b>BASALT FLOW</b>							
464.00	466.00	Fine-medium-grained green brown chloritic sericitic	10.0 0.1	3 15	QZCV 30 7	Minor BKN portion. Magnetite/ py vein between 464.25-464.38m associated with quartz. Brown colour as above associated with increased py aggregates and dissemination. Weak epidote alteration associated with quartz vein and magnetite vein. Augite phenocrysts visible locally.	117186	0.078	0.152
466.00	468.00		12.0	1 2	QZCMO 70 5	Increased silicification and potassic alteration between 466.00-466.45m with brown stain possibly due to weak sericite +/- fine biotite alteration. Darker green brown colour due to moderate sericite +/- fine biotite alteration associated with increased disseminated py and aggregates. Quartz vein between 467.52-467.59m associated with weak epidote and rare molybdenum. Rare magnetite/ quartz stringers. Weak epidote alteration.	117187	0.127	0.308
468.00	470.00		10.0	3 46	QKCV 60 5	Brown coloured portions, weak sericite +/- fine biotite alteration associated with increased disseminated py. Weak epidote alteration. Quartz/ magnetite/ potassic/ epidote veining between 469.60-469.73m. Vuggy locally.	117189	0.102	0.154
470.00	471.65	Fine-medium-grained green brown chloritic silicic	5.0	165	QZCV 10 5	Local increase in epidote alteration between 470.05-470.15m. Patchy brown colour due to weak sericite +/- fine biotite alteration. Weak patchy potassic alteration between 470.77-470.80m. Quartz vein associated with epidote/ py vuggy at 471.85m. Quartz rich felsic portion between 471.15-471.46m.	117190	0.071	0.197
471.65		<b>BASALT FLOW BRECCIA</b>							
471.65	472.37	Fine-medium-grained medium green chloritic sericitic	6.0	0	QZCV 5 7	Augite phenocrysts visible locally associated with disseminated py and aggregates. Brecciated texture visible locally.	117191	0.019	0.042
472.37		<b>BASALT FLOW</b>							

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
472.37	473.55	Fine-medium-grained light green chloritic silicic	5.0	0	QZCV 30 5	Augite phenocrysts as above. Local weak epidote alterations between 473.02-473.08m and 473.36-473.43m. Quartz/ zeolite veining locally enveloped with potassic alterations.	117192	0.055	0.126
473.55	474.48	Fine-coarse grained medium green chloritic silicic	4.0	1	1 QZCV 90 7	Local augite phenocrysts, .5mm across between 473.53-474.00m. Increased chloritic magnetite/ quartz veining. Quartz/ zeolite/ calcite veining and py dissemination and aggregates.	117193	0.056	0.19
474.48	476.14		6.0	2	8 QZCV 30 5	Increased disseminated py and aggregates veining associated with magnetite veining. Weak epidote alteration, patchy and in stringer form. Patchy faint brown colour due to weak sericite +/- fine biotite.	117194	0.095	0.144
476.14	478.08	<b>BASALT FLOW BRECCIA</b>							
476.14	478.08	Fine-medium-grained light green chloritic silicic	10.0	3	12 QZV 10 5	Porphyritic texture between 476.14-476.70m. Massive and brecciated from 476.70m associated with magnetite aggregates and weak epidote alteration. Localized pot alteration. Local increase in magnetite between 476.14-476.70m	117195	0.066	0.095
478.08	483.89	<b>BASALT FLOW</b>							
478.08	480.00	Fine-medium-grained green brown chloritic silicic	10.0	4	131 QZCV 90 5	Weak patchy brown colour due to weak sericite +/- fine biotite alteration. Increased plagioclase phenocrysts at 478.08-478.19m. Local increase in magnetite. Slightly mottled. Local weak epidote alterations in flow and continued to stringers.	117196	0.114	0.164
480.00	481.42		3.0		70 QZCV 10 5	Magnetite stringers. Porphyritic portions and massive portions associated with massive magnetite and less py aggregates. Quartz/ zeolite/ calcite veining.	117197	0.076	0.114
481.42	483.00	Fine-medium-grained medium green chloritic epidote	3.0		135 QZCV 90 7	Local potassic alterations between 481.51-481.54m. epidote alterations at about 481.21m. Increased epidote alterations from 481.82-482.55m associated with massive magnetite and disseminated py and quartz/ zeolite veining.	117198	0.125	0.165
483.00	483.89	Fine-medium-grained light green chloritic epidote	2.0		25 QZCV 90 5	Weak patchy epidote alterations, patchy brown/ yellow staining possibly weak sericite +/- fine biotite alterations. Augite and plagioclase phenocrysts. Py and magnetite aggregates. Quartz/ zeolite veining. Weak potassic alterations.	117199	0.122	0.18
483.89	486	<b>BASALT FLOW BRECCIA</b>							

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
483.89	486.00	Fine-medium-grained chloritic silicic	light green	4.0	3	11 QZCV 10 5	Brown colour, weak sericite +/- fine biotite alteration. Py disseminated aggregates. Quartz/ calcite/ magnetite vein. Locally brecciated associated with disseminated py and brown colour, +/- fine biotite alteration. Py/ magnetite stringers associated with quartz vein locally. Massive magnetite and disseminated py and aggregates. Weak epidote alteration.	117200	0.075	0.152
<div style="border: 1px solid black; display: inline-block; padding: 2px;">486</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">503.3</div> <b>BASALT FLOW</b>										
486.00	488.00	Fine-medium-grained chloritic silicic	light green	6.0	5	70 QZV 80 7	Brown colour as above. Increased disseminated py and aggregates. Magnetite/ py veining at 486.65m. Magnetite stringers between 486.85-487.14m. Augite phenocrysts visible locally.	117201	0.073	0.101
488.00	490.02	Fine-medium-grained chloritic	light green	6.0	5	116 QZV 7	Local increase in disseminated and aggregate py, also present as veining associated with magnetite/ quartz veining. Massive magnetite. Augite phenocrysts. epidote alteration weak and patchy. Quartz/ py vein between 488.01-488.85m at magnetite vein at about 488.96m. Magnetite veining between 489.20-489.50m associated with zeolite/ quartz. Augite and plagioclase present locally.	117202	0.051	0.094
490.02	492.00	Fine-medium-grained chloritic silicic	light green	4.0	5	65 QZCV 50 10	Magnetite, massive and aggregate, in flow. Plagioclase and augite phenocrysts visible locally. Mottled texture between 490.02-490.17m. Py and cpy stringers bound by magnetite/ quartz veining. Weak patchy epidote alteration. Weak patchy pot alteration between 490.64-490.75m associated with py/ magnetite vein. Local increase in zeolite/ magnetite/ py veining between 491.24-491.76m locally vuggy.	117203	0.107	0.167
492.00	494.00			3.0	10	1 QZCV 90 10	Massive magnetite vein between 412.99-413.05m associated with py and cpy aggregates. Weak patchy epidote alteration and pot alteration. Plagioclase and augite phenocrysts visible locally. Rare weak pot alteration portions. Local increase in veining.	117204	0.174	0.367
494.00	496.00			3.0	0.3	7 6 QZCV 70 7	Massive magnetite units. Py aggregates associated with magnetite aggregates. Magnetite stringers and quartz. Massive texture between 494.00-495.45m. Porphyritic from 495.45-496.00m. Cpy stringer at about 495.98m. Augite and plagioclase phenocrysts in porphyritic portions. Weak epidote alteration. Quartz/ zeolite/ magnetite veining.	117205	0.048	0.068

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
496.00	498.00	Fine-medium-grained light green chloritic silicic	4.0	0.1	3 51 QZCV 80 15	Augite and plagioclase phenocrysts visible locally. Weak patchy epidote alteration, increase in less silicified portions. Magnetite/ py aggregates increase py +/- cpy aggregation 497.36-497.66m. Local increase in quartz/ zeolite veining from 497.17m.	117206	0.028	0.101
498.00	500.00		2.0		4 32 QZCV 90 10	Augite and plagioclase as above. Hematite veining lining joint plane. BKN zone associated with quartz/ zeolite veining associated with calcite/ hematite veining locally. Magnetite aggregates associated with quartz/ zeolite veining. Very weak epidote alteration with veining.	117207	0.04	0.103
500.00	502.13		2.0		3 17 QZCV 0 15	Quartz/ zeolite/ hematite veining between 500.05-500.25m associated with py. Quartz/ zeolite veining with magnetite and py aggregates between 500.51-500.54m. Weak patchy brown colour due to weak sericite +/- fine biotite. Quartz/ zeolite vein between 500.86-501.09m, vuggy and 501.50-502.13m associated with increase in disseminated py and magnetite aggregates. Weak localized epidote alteration.	117208	0.087	0.17
502.13	503.30		3.0		5 20 QZCV 70 10	Patchy faint brown colour due to weak sericitic +/- fine biotite alteration. Augite and plagioclase phenocrysts. Quartz/ zeolite/ magnetite veining at 502.96-503.20m. Slight increase in disseminated py.	117209	0.135	0.482
503.3	504.28	<b>BASALT FLOW BRECCIA</b>							
503.30	504.28	Fine-medium-grained light green chloritic silicic	2.0	0.3	3 38 QZCV 30 15	Quartz/ zeolite veining, increase in augite and plagioclase phenocrysts. Fault plane at 504.28m infilled with gouge material and disseminated py. Hematite veining at 503.78-503.80m and magnetite veining. Weak epidote alteration. Cpy aggregates at 504.02m. Local breccia.	117210	0.079	0.144
504.28	508	<b>BASALT FLOW</b>							
504.28	505.67	Fine-medium-grained light green chloritic silicic	1.0		1 4 QZV 80 20	Augite phenocrysts. Quartz/ zeolite vein between 504.28-504.47m associated with disseminated py +/- cpy. Quartz veining between 504.74-505.67m. Dark green chlorite between 504.47-504.74m. Magnetite aggregate associated with veining.	117211	0.067	0.156
505.67	506.65		1.0		2 QZCV 70 10	BKN between 506.10-506.65m. Local increase in quartz/ zeolite veining. Hematite lining joint at about 506.10m.	117212	0.059	0.125
506.65	508.00		1.0		1 8 QZV 70 7	Weak potassic alteration between 507.10-508.00m. Augite phenocrysts visible locally. Disseminated py and aggregate. Quartz/ zeolite veining. Rare py aggregate.	117213	0.103	0.28

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
508	510	<b>BASALT FLOW BRECCIA</b>							
508.00	510.00	Fine-medium-grained light green chloritic silicic	2.0	3	5 QZCV 0 30	Fragmental, possibly insitu breccia. Brown colour between 508.00-508.40m, possibly due to weak sericite +/- fine biotite alteration. Quartz/ zeolite/ calcite veining between 508.44-509.47m at shallow angle banded. Quartz/ calcite/ magnetite veining between 509.71-509.96m. Slightly brecciated. Local disseminated py.	117215	0.142	0.31
510	649.54	<b>BASALT FLOW</b>							
510.00	511.79	Fine-medium-grained pink brown silicic potassic	1.0	2	9 QZV 10 7	Silicified and potassic and possibly sericitized. Pink brown colour. Hardness >4, associated with rare py mineralization. BKN between 510.81-511.20m. Quartz/ zeolite/ calcite veining. alteration overprinting protolith.	117216	0.23	0.479
511.79	512.49	Fine-medium-grained medium green chloritic silicic	1.0	0.3	2 QZHCV 30 10	Brown colour due to weak to moderate sericite +/- fine biotite alteration. Quartz veining associated with py aggregates. Zeolite/ quartz veining and magnetite aggregates locally and py aggregates associated with cpy. Rare hematite.	117217	0.264	0.59
512.49	514.00		2.0		181 QZHCV 90 20	Quartz/ zeolite/ hematite/ calcite veining also present as discontinuous stringers. Disseminated magnetite/ py. Augite phenocrysts. Weak to moderate brown possibly weak sericite +/- fine biotite alteration.	117218	0.107	0.191
514.00	516.00		2.0	2	6 QZHCV 30 50	Hematite veining at 515.14m associated with quartz/ calcite veining. Increased quartz/ zeolite/ calcite veining and magnetite/ py aggregates.	117219	0.168	0.246
516.00	518.00	Fine-medium-grained medium green chloritic sericitic	1.0	3	23 QZHCV 30 15	Augite phenocrysts visible locally associated with plagioclase. Quartz/ calcite veining. Augite phenocrysts. Magnetite stringer. Brown faint colour due to weak sericite +/- fine biotite alteration. Massive magnetite between 517.89-518.00m. Weak epidote alteration.	117220	0.206	0.416
518.00	520.00	Fine-medium-grained medium green chloritic epidote	3.0	1	1 QZHCV 80 15	Quartz/ zeolite veining, local increase. Augite phenocrysts. Local increase in disseminated py. Chlorite rich portions. Weak epidote alteration. Magnetite aggregates.	117221	0.21	0.326

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
520.00	522.00	Fine-medium-grained medium green chloritic epidote	3.0	1	5 QZHCV 60 7	Quartz/ zeolite veining, local increase. Augite phenocrysts. Local increase in disseminated py. Chlorite rich portions. Weak epidote alteration. Magnetite aggregates. epidote veining at about 521.21m. Moderate epidote alteration to 521.33m. Hematite lining 90 degrees to joint.	117222	0.18	0.348
522.00	524.00	Fine-medium-grained medium green chloritic sericitic	3.0	1	52 QZHCV 80 10	Quartz/ zeolite veining, local increase. Augite phenocrysts. Local increase in disseminated py. Chlorite rich portions. Weak epidote alteration. Magnetite aggregates. Local increase in quartz/ calcite veining. Augite and plagioclase phenocrysts. Py aggregate and dissemination. Magnetite aggregate. Patchy brown colour due to sericite +/- fine biotite alteration. Weak epidote alteration.	117223	0.131	0.227
524.00	526.00	Fine-medium-grained medium green chloritic silicic	2.0	0.5	3 62 QZV 90 10	Quartz/ zeolite veining, local increase. Augite phenocrysts. Local increase in disseminated py. Chlorite rich portions. Weak epidote alteration. Magnetite aggregates. Patchy brown colour as above. Augite and plagioclase phenocrysts. Py aggregate and dissemination. Magnetite stringer associated with quartz. Py and cpy aggregates at about 524.78m associated with quartz/ magnetite vein between 525.63-525.64m associated with quartz/ zeolite veining.	117224	0.185	0.368
526.00	528.00		3.0	0.3	3 14 QZHCV 90 7	Magnetite stringers associated with py aggregates. Faint brown colourization due to weak sericite +/- fine biotite alteration. Rare hematite veining associated with quartz/ zeolite/ calcite veining. Py associated with cpy in veining +/- magnetite/ quartz. Increase in zeolite veining between 527.90-528.00m.	117225	0.083	0.114
528.00	530.00		3.0	0.3	3 12 QZCV 70 10	Augite and plagioclase phenocrysts. Brecciated locally. Quartz/ zeolite veining associated with magnetite locally with py and rare cpy. Increase cpy associated with massive py aggregates between 529.08-529.18m associated with quartz/ zeolite veining.	117226	0.171	0.234
530.00	532.00		4.0	0.1	1 8 QZCV 5 15	Vuggy flow at about 530.35m. Quartz/ zeolite veining between 530.38-530.83m banding at about 90 degrees. Local BKN zones. Weak patchy potassic altered portions. Disseminated py associated with cpy locally. Brown colour due to weak sericite +/- fine biotite alteration. Local increase in disseminated py.	117227	0.128	0.235

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
532.00	534.00	Fine-medium-grained medium green chloritic silicic	4.0 0.1	1	25 QZCV 90 15	Chloritic, weak epidote alteration. Increased disseminated py and aggregates. Augite phenocrysts visible locally. Quartz/ zeolite veining associated with magnetite aggregate. Rare cpy aggregates with py.	117228	0.162	0.346
534.00	536.00		10.0 0.1	1	7 QZCV 70 20	Increased zeolite/ quartz/ calcite veining between 534.50-535.64m. Massive py vein +/- rare cpy between 535.64-535.97m. Augite phenocrysts visible locally. Local increase in disseminated py.	117229	0.104	0.097
536.00	537.95		7.0 0.2	1	20 QZCV 60 30	Augite and plagioclase phenocrysts visible locally. Rare cpy associated with py aggregates associated with quartz/ zeolite veining. Quartz/ calcite vein between 563.33-563.70m. Increased zeolite veining from 536.74m. Vuggy flow locally.	117230	0.196	0.237
537.95	540.00		5.0 0.1	3	66 QZCV 90 50	Quartz/ calcite vein between 537.95-538.30m, locally vuggy. Augite and plagioclase phenocrysts as above. Quartz/ zeolite/ calcite and magnetite veining. Quartz/ calcite vein also between 538.64-538.90m. Quartz/ magnetite/ zeolite/ py veining from 538.90-539.81m.	117231	0.149	0.195
540.00	542.00		7.0 0.1	2	8 QZCV 90 7	Augite and plagioclase phenocrysts as above, locally massive. Brown colour due to weak sericite +/- fine biotite alteration. Increased disseminated py and aggregates. Magnetite aggregates and massive in flow. Flow vuggy between 540.66-540.78m associated with increased quartz/ zeolite veining. Rare cpy aggregates associated with py.	117232	0.067	0.065
542.00	544.00	Fine-medium-grained green brown chloritic silicic	15.0 0.1	1	32 QZCV 90 20	Increase in quartz/ zeolite veining between 542.00-543.21m. Local increase in py aggregates and dissemination. Massive py vein between 543.53-543.68m associated with quartz/ zeolite veining. Augite phenocrysts visible locally. Increased magnetite. Patchy brown colour due to weak sericite +/- fine biotite alteration.	117233	0.249	0.69
544.00	546.00		7.0 0.5	3	19 QZCV 60 10	Cpy aggregates associated with py aggregates between 544.24-544.31m. Brown colour as above. Darker portions possibly indicating moderate to high sericite +/- fine biotite alteration. Magnetite/ quartz/ zeolite veining. Augite phenocrysts visible locally.	117234	0.123	0.195



## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
546.00	548.00	Fine-medium-grained green chloritic silicic medium	5.0 0.3	2	13 QZCMO 80 30	Augite phenocrysts. Silicification varies from weak to moderate. Quartz vein between 546.68-546.96m associated with cpy and molybdenum. Weak patchy epidote alteration. Massive magnetite. Quartz/ zeolite veining. Brown colouration due to weak sericite +/- fine biotite alteration.	117235	0.142	0.29
548.00	550.00		3.0 0.1	3	10 QZCV 70 20	Massive magnetite, weak epidote alteration. Disseminated py and aggregates. Quartz/ zeolite between 548.53-548.66m. Local increase in quartz/ zeolite veining and magnetite aggregates.	117236	0.065	0.073
550.00	552.00	Fine-medium-grained brown green sericitic chloritic	10.0 0.1	5	18 QZCMO 20 30	Brown colour due to moderate sericite +/- fine biotite alteration, massive magnetite quartz/ zeolite/ calcite veining. Weak epidote alteration. Massive py aggregates associated with quartz vein and zeolite and molybdenum between 551.32-551.57m. Quartz/ calcite/ zeolite vein between 551.57-551.79m. Patchy brown colour due to weak sericite +/- fine biotite alteration. Magnetite stringers and massive rare cpy.	117237	0.121	0.3
552.00	554.00	Fine-medium-grained green brown chloritic sericitic	3.0	3	11 QZV 0 7	Quartz/ magnetite stringers. Augite and plagioclase phenocrysts. Brown colour as above. Disseminated py and aggregates. Quartz/ zeolite veining and py stringers.	117238	0.082	0.125
554.00	556.00		5.0 0.1	1	3 QZV 90 7	Brown colour due to weak sericite +/- fine biotite alteration. Disseminated py and aggregates. Mottled texture between 554.26-554.37m. Rare cpy associated with py aggregates. Augite and plagioclase phenocrysts visible locally. Rare magnetite aggregates associated with quartz vein.	117239	0.251	0.542
556.00	558.00	Fine-medium-grained green brown chloritic silicic	6.0 0.3	3	12 QZCV 30 10	Augite phenocrysts visible locally. Disseminated py and aggregates. Quartz/ zeolite veining. Faint patchy brown colour due to weak sericite +/- fine biotite alterations patchy. Quartz/ calcite veining between 557.70-557.81m associated with quartz/ magnetite veining. Augite and plagioclase phenocrysts. Disseminated py and aggregates associated with cpy locally. Weak to moderate silicified, weak silicified between 556.62-556.87m associated with vuggy.	117241	0.159	0.21
558.00	560.00	Fine-medium-grained medium green chloritic epidote	2.0	1	175 QZV 90 7	Weak to moderate silicified. BKN locally, local increase in quartz/ zeolite veining between 558.28-558.69m. Weak epidote alteration. Quartz/ Magnetite stringers. Py aggregates associated with quartz/ zeolite veining.	117242	0.142	0.243

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
560.00	561.58	Fine-medium-grained medium green chloritic sericitic	3.0	2	83 QZV 0 60	Local increase in zeolite/ quartz veining between 560.17-560.92m, locally stock worked. Magnetite/ zeolite/ quartz veining. Augite and plagioclase phenocrysts visible locally. Faint brown colour possible due to weak sericite +/- fine biotite alteration. Fine disseminated py locally associated with magnetite aggregate. Weakly silicified.	117243	0.181	0.38
561.58	562.90	Fine-medium-grained medium green chloritic silicic	6.0	3	86 QZV 0 30	Quartz/ zeolite/ magnetite veining between 561.58-562.90m. Associated with increased py aggregates and dissemination. Brown patchy colour possibly due to weak sericite +/- fine biotite alteration. Amygduloidal structures between about 562.70-562.80m, infilled with 2 degree K-feldspar, chlorite. Augite phenocrysts visible locally.	117244	0.2	0.32
562.90	565.00	Fine-medium-grained green brown chloritic sericitic	5.0	1	16 QZV 90 10	Augite phenocrysts. Disseminated py and aggregates. Magnetite/ quartz stringers. Local increase in quartz/ zeolite veining between 564.48-564.62m and between 563.89-564.11m. Augite phenocrysts visible and plagioclase. Faint, patchy brown colour possibly due to sericite +/- fine biotite alteration. Disseminated py and aggregates and stringers.	117245	0.087	0.139
565.00	566.07		6.0	0.1	2 37 QZV 80 15	Brown colour due to weak or moderate sericite +/- fine biotite alteration. Local increase in disseminated py and aggregates associated with rare cpy aggregates. Quartz/ zeolite veining and magnetite aggregates. Rare K-feldspar veining at about 566.00m.	117246	0.134	0.835
566.07	567.36	Fine-medium-grained green brown chloritic silicic	4.0	0.1	1 238 QZMOV 90 15	Augite and plagioclase phenocrysts visible locally in weakly silicified vuggy portions. Quartz/ magnetite/ zeolite veining associated with molybdenum between 566.60-566.70m. Vuggy zeolite vein at about 567.03m. 90 degrees to core axis. Very faint brown colour due to weak sericite +/- fine biotite alteration. Rare cpy aggregates associated with py.	117247	0.199	0.387
567.36	569.00		3.0	0.1	3 335 QZV 90 10	BKN. Quartz/ magnetite veining, locally vuggy structures in flow. Disseminated py and aggregates in flow and stringers. Brown colour due to weak sericite +/- fine biotite alteration. Weak to moderate silicified portions. Rare epidote.	117248	0.122	0.127

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
569.00	571.00	Fine-medium-grained green brown chloritic sericitic	5.0 0.1	2 26	QZV 90 15	Augite and plagioclase phenocrysts visible locally. Quartz/ zeolite veining from between 569.15-569.30m - vuggy locally. Patchy weak to moderate silicification. Weak silicate portions associated with more visible augite and plagioclase phenocrysts and vuggy portions and an increase in zeolite/ quartz/ magnetite veining. Disseminated py and aggregates and stringers. Brown colour due to weak sericite +/- fine biotite alteration. Rare cpy aggregates.	117249	0.187	0.327
571.00	573.00		7.0 0.5	3 109	QZMOV 80 10	Cpy aggregates associated with py aggregates and magnetite/ quartz veining between 572.11-572.70m. Py aggregates and disseminated veining between 571.00-571.20m. Molybdenum associated with quartz/ zeolite veining at about 572.02m. Disseminated py and aggregates in flow. Brown colour indicates weak sericite +/- fine biotite alteration. Weak patchy epidote alteration.	117250	0.316	0.646
573.00	575.00	Fine-medium-grained green brown chloritic silicic	4.0 0.1	3 73	QZV 0 7	Augite and plagioclase phenocrysts. Py and magnetite aggregates, also present as stringers. Quartz/ zeolite veining. Weakly silicified portions associated with augite and plagioclase phenocrysts and increased quartz/ zeolite veining. Massive magnetite units in flow. Patchy faint brown colour due to weak sericite +/- fine biotite alteration and vuggy. Py dissemination in flow associated with rare cpy.	117426	0.139	0.207
575.00	577.00		5.0	4 100	QZV 90 10	Augite and plagioclase phenocrysts. Quartz/ zeolite veining. Locally vuggy associated with weakly silicified portions. Massive magnetite.	117427	0.142	0.224
577.00	579.00		3.0	5 42	QZV 90 30	Quartz/ zeolite veining between 578.63-578.84m and 578.21-578.29m. Brown colour due to sericite +/- fine biotite alteration.	117428	0.134	0.189
579.00	581.00		5.0 0.1	3 48	QZV 90 5	Brown sericite +/- fine biotite alteration. Quartz/ zeolite veining associated with magnetite aggregates. Disseminated py and aggregates locally associated cpy. Local increase in py aggregates. Augite and plagioclase phenocrysts visible locally. Moderate to weakly silicified.	117429	0.146	0.2
581.00	583.00		10.0 0.1	3 57	QZV 10 7	Disseminated py and aggregates associated with rare cpy locally. Brown colour due to weak sericite +/- fine biotite alteration. Quartz vein between 582.86-582.98m.	117430	0.166	0.251

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
583.00	585.00	Fine-medium-grained green brown chloritic silicic	5.0 0.5	2 49	QZV 70 10	Cpy aggregates and py at about 583.69m. Massive magnetite and stringers. Augite and plagioclase phenocrysts. Brown colour due to weak sericite +/- fine biotite alteration. Quartz/ magnetite veining between 584.45-584.60m, vuggy. Cpy aggregates associated with py at about 584.68-584.78m.	117431	0.311	0.637
585.00	587.00		7.0 0.1	3 9	QZV 90 7	Massive magnetite stringers. Quartz veining and py aggregates associated with cpy. Augite and plagioclase phenocrysts visible between 586.38-586.52m associated with weakly silicified portions. Disseminated py and aggregates in flow.	117432	0.329	0.581
587.00	589.00		7.0 0.5	2 56	QZV 30 10	Disseminated py and aggregates in flow. Augite and plagioclase phenocrysts visible between 588.09-588.36m associated with weak silicification and with quartz/ zeolite veining and magnetite. Brown colour due to weak sericite +/- fine biotite alteration. Cpy aggregates at about 587.78m.	117433	0.228	0.24
589.00	591.07	Fine-medium-grained brown green chloritic sericitic	10.0 0.5	1 19	QZV 90 10	Brown indicating weak to moderate sericite +/- fine biotite alteration. Augite and plagioclase phenocrysts associated with reduced silicification. Py aggregates and dissemination, associated with cpy aggregates at about 589.47m	117434	0.234	0.368
591.07	592.88		5.0 0.1	2 3	QZV 90 10	Brown colour due to weak sericite +/- fine biotite alteration. Augite and plagioclase phenocrysts between 591.07-591.22m associated with weak silicification plus increased quartz/ zeolite veining. Disseminated py +/- cpy aggregates in flow. Smokey grey quartz vein between 591.65-591.92m associated with cpy aggregates and py. Barren quartz/ magnetite vein.	117435	0.347	0.662
592.88	595.00	Fine-medium-grained green brown chloritic silicic	3.0 0.1	2 154	QZV 30 10	Augite and plagioclase phenocrysts. Brown sericite +/- fine biotite alteration. Py/ epidote aggregates associated with quartz vein. Weak to moderate silicification	117436	0.216	0.206
595.00	597.00		5.0 0.5	3 53	QZV 80 10	Cpy aggregates associated with py. Quartz/ magnetite veining. Massive magnetite in flow. Brown colour due to weak sericite +/- fine biotite alteration. Augite phenocrysts visible locally.	117437	0.17	0.192

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt Ms Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
597.00	599.00	Fine-medium-grained green brown chloritic silicic	6.0 0.1 3 31 QZV 70 10	Augite phenocrysts visible locally. Brown coloured as above. Local increase in disseminated py and aggregates. Quartz/ zeolite veining. Less silicified portions between 598.03-599.00m associated with augite and plagioclase phenocrysts.	117438	0.158	0.141
599.00	601.00	Fine-medium-grained medium green chloritic silicic	2.0 0.1 4 117 QZV 0 90	Augite phenocrysts, moderately silicified. Rare py/ quartz stringers. BKN locally. Less silicified portion associated with augite and plagioclase phenocrysts - vuggy and increased quartz/ zeolite veining. Magnetite/ quartz veining. Barren zeolite and quartz veining. Weakly silicified portions as above.	117439	0.119	0.147
601.00	603.00	Fine-medium-grained green brown chloritic sericitic	3.0 0.5 4 124 QZV 80 30	Weakly silicified portion associated with augite and plagioclase phenocrysts associated with increased veining. Cpy aggregates associated with zeolite veining at about 601.35m. Augite in more silicified portions. Quartz/ zeolite between 601.65-602.05m in associated with py/ cpy/ molybdenum.	117440	0.22	0.481
603.00	605.00		1.0 0.1 1 58 QZV 70 10	Quartz/ zeolite/ magnetite vein between 603.00-603.12m. Weakly silicified. Augite and plagioclase phenocrysts visible locally. Quartz/ zeolite veining associated with quartz and magnetite locally. Rare py and cpy aggregates. Slight brown colour possibly sericite +/- fine biotite alteration. Py and cpy stringers associated with quartz vein. Augite phenocrysts only present in moderate silicified portions.	117441	0.27	0.495
605.00	607.00	Fine-medium-grained medium green chloritic silicic	2.0 0.1 2 22 QZV 60 10	Weak silicified portions as described above. Minor local BKN zone. Magnetite veining associated with quartz/ zeolite. Rare disseminated py and cpy.	117443	0.286	0.545
607.00	609.00		5.0 0.5 3 25 QZV 90 15	Py and cpy aggregates between 607.27-607.31m associated with minor magnetite and quartz vein. Magnetite veining. Augite and plagioclase phenocrysts in weakly silicified portion. Moderate silicified portion associated with augite phenocrysts only. Local increase in disseminated py and aggregates.	117444	0.255	0.433
609.00	611.00		4.0 0.1 4 150 QZV 30 10	Mainly moderately silicified associated with augite phenocrysts as above. Disseminated py and quartz veining. Weakly silicified between 609.62-609.82m with augite and plagioclase phenocrysts, quartz/ magnetite stringers and py stringers between 609.97-610.06m.	117445	0.215	0.338

## Hole Number: KN-02-49

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
611.00	613.00	Fine-medium-grained medium green chloritic silicic	4.0	0.3	4 110 QZV	90 7 Moderately silicified as above. Quartz vein between 612.08-612.49m associated with py and cpy aggregates associated with zeolite and magnetite aggregates. Py and cpy also finely disseminated in flow. Cpy aggregates associated with brown colour due to weak sericite +/- fine biotite alteration.	117446	0.329	0.594
613.00	615.00		3.0	0.1	4 179 QZV	10 15 Weak silicified portion between 613.84-614.45m. Quartz/zeolite/ calcite vein between 613.58-613.84m associated with cubic pyrite. Quartz calcite vuggy vein at 614.13m, dissolution features and recrystallization. Magnetite stringers.	117447	0.111	0.189
615.00	617.00		3.0	0.1	5 202 QZV	90 7 Weak silicified portions as above. Magnetite veining. Disseminated py. Quartz/ zeolite veining associated with calcite locally. Magnetite also massive.	117448	0.147	0.267
617.00	619.00		4.0	0.1	2 159 QZV	10 7 See sample 117448. Local increase in disseminated py.	117449	0.145	0.203
619.00	621.00		3.0	0.1	3 42 QZV	90 7 See sample 117448. Augite phenocrysts, moderate to highly silicified. Local increase in magnetite vein between 620.88-620.90m. Massive magnetite, py, and cpy aggregates.	117450	0.066	0.103
621.00	623.00		2.0	0.1	5 17 QZV	30 7 See sample 117448. Local increase in magnetite stringers and massive in flow locally. Augite and plagioclase phenocrysts visible locally. Reduced py aggregates and dissemination associated with rare cpy.	117451	0.12	0.293
623.00	624.40		2.0	0.1	7 18 QZV	0 7 See sample 117448 and see sample above.	117452	0.211	0.151
624.40	626.00	Fine-medium-grained dark brown sericitic silicic	3.0		5 38 QZV	70 15 Dark brown colour due to moderate sericite +/- fine biotite alteration associated with disseminated py and aggregates. Quartz/ zeolite veining between 624.00-624.90m associated with magnetite stringers and py aggregates and dissemination. Locally vuggy. Quartz/ zeolite/ magnetite at about 625.57m.	117453	0.196	0.369
626.00	628.00	Fine-medium-grained green brown chloritic silicic	3.0	0.1	5 55 QZV	90 7 Augite phenocrysts visible in moderate silicified portions. Weakly silicified portion associated with augite and plagioclase phenocrysts. Magnetite stringers, massive locally. Quartz/ zeolite/ magnetite veining. Disseminated py and aggregates. Weak patchy brown colour due to weak sericite +/- fine biotite alteration and cpy aggregates rare.	117454	0.074	0.154

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
628.00	630.00	Fine-medium-grained green brown chloritic silicic	3.0 0.3	3 16	QZCMO 70 10	Augite and plagioclase phenocrysts as above. Quartz/zeolite/ calcite vein between 629.11-629.26m associated with py and cpy aggregates. Molybdenum associated with zeolite/ quartz at about 629.90m. Weak patchy brown colour as above.	117455	0.168	0.422
630.00	632.00	Fine-medium-grained brown green chloritic sericitic	4.0 0.5	7 11	QZCV 80 10	Brown colour due to weak to moderate sericite +/- fine biotite alteration associated with an increase of disseminated py and aggregates and rare cpy. Augite and plagioclase phenocrysts in less silicified and sericitic portion. Quartz/ zeolite/ calcite veining. Py and cpy veining at about 631.98m bound by magnetite aggregates.	117456	0.266	0.479
632.00	634.00	Fine-medium-grained medium brown sericitic silicic	6.0 0.3	10 12	QZCMO 90 15	Brown due to sericite +/- fine biotite alteration (medium to high). Protolith overprinted by alteration, possibly basalt flow. Patchy sericite +/- fine biotite alteration between 632.45-632.76m associated with quartz/ zeolite veining with py and cpy stringers and aggregates. Vuggy at about 633.55m. Quartz vein between 633.55-633.87m. Cut by py and cpy stringers at about 30 degrees to core axis, which are cross cut by late stage zeolite veining at about 70 degrees to core axis. Molybdenum stringer cutting quartz vein at about 633.79m and magnetite. Fine disseminated py +/- cpy.	117457	0.226	0.511
634.00	636.00	Fine-medium-grained dark brown sericitic silicic	7.0 0.5	3 5	QZMOV 0 15	Disseminated py and cpy present as aggregates and stringers. Brown colour due to moderate sericite +/- fine biotite alteration. Very weak patchy epidote alteration. Quartz vein between 634.34-634.58m, cross cut by py and cpy stringers associated with magnetite locally. Up to about 0.7% cpy in quartz vein. Molybdenum associated with quartz vein at about 654.57m. Magnetite associated with veining locally.	117458	0.187	0.357
636.00	638.00	Fine-medium-grained medium brown sericitic silicic	2.0 0.1	3 16	QZV 30 10	Brown patchy colouration due to medium sericite +/- fine biotite alteration. Altered augite and plagioclase phenocrysts visible. Quartz/ zeolite veining. Magnetite/ hematite veining between 637.45-637.59m and quartz vein between 637.59-637.72m. Slightly sheared py and cpy aggregates and stringers rare.	117459	0.17	0.318

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
638.00	640.00	Fine-medium-grained medium brown sericitic silicic	2.0 0.3 10	43	QZV 80 10	Augite and plagioclase phenocrysts. Patchy brown colour due to weak, patchy sericite +/- fine biotite alteration. Less altered chlorite portions cross cut by quartz/ zeolite veining associated with magnetite aggregates. Py and cpy aggregates and stringers associated with quartz vein and aggregates.	117460	0.29	0.577
640.00	642.02		3.0 0.5 5	31	QZV 90 15	Cpy and py aggregates associated with quartz vein and zeolite. Brown colour due to medium sericite +/- fine biotite alteration. Augite phenocrysts visible in medium silicified portions. Augite and plagioclase phenocrysts visible in weakly silicified portions. Quartz vein between 641.83-642.02m associated with py and cpy aggregates, up to 7% cpy locally in quartz vein and magnetite stringers.	117461	0.297	0.627
642.02	644.00	Fine-medium-grained green brown chloritic sericitic	2.0 0.1 3	14	QZV 80 7	Augite phenocrysts visible in moderate silicified portions, while augite and plagioclase phenocrysts visible in weakly silicified portions. Local increase in quartz/ zeolite veining between 643.08-643.13m and at 647.87m. Rare disseminated py and cpy. Patchy faint brown colour due to weak sericite +/- fine biotite alteration. Rare hematite veining associated with quartz/ zeolite veining.	117462	0.338	0.757
644.00	646.00	Fine-medium-grained brown green sericitic chloritic	3.0 0.1 5	26	QZV 90 7	Same as above. Local increase in quartz/ zeolite/ calcite veining at 645.66m and augite and plagioclase phenocrysts slightly increase in disseminated py and cpy. Moderate sericite +/- fine biotite alteration (medium brown colour)	117463	0.17	0.3
646.00	648.00		2.0 0.1 3	32	QZV 90 10	Medium brown colour due to medium sericite +/- fine biotite alteration. Augite and plagioclase phenocrysts in weakly silicified portion in association with increased zeolite/ quartz/ magnetite veining. Augite phenocrysts in moderate silicified portion. Rare hematite veining lining it. Reduced py and cpy aggregates.	117464	0.129	0.221
648.00	649.54		3.0 0.1 1	19	QZV 90 15	Patchy brown colour due to sericite +/- fine biotite alteration in association with py and cpy disseminated. Chloritic, vuggy between 648.94-649.12m. Cpy and py aggregates at about 649.37m. Local increase in quartz/ zeolite veining.	117465	0.467	1.125

649.54	650.82	<b>QUARTZ MONZONITE</b>
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**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
649.54	650.82	Fine-medium-grained pink silicic epidote	3.0 0.1	2	18 QZV 80 10	Weak epidote alteration. Quartz/ zeolite veining. Quartz vein between 650.45-650.68m associated with py and cpy stringers with weak epidote and magnetite. Plagioclase and K-feldspar phenocrysts in light pink/ grey fine grained matrix. Weakly to moderately silicified, possibly secondary alteration. Monzodiorite.	117466	0.14	0.215
<b>650.82</b>	<b>655.75</b>	<b>BASALT FLOW</b>							
650.82	652.14	Fine-medium-grained brown green sericitic silicic	3.0 0.3	5	104 QZV 90 7	Brown colour due to weak to moderate sericite +/- fine biotite alteration. Quartz/ zeolite veining associated with magnetite aggregates. Augite and plagioclase phenocrysts.	117467	0.205	0.465
652.14	654.00	Fine-medium-grained medium brown sericitic silicic	1.0 0.1	5	11 QZV 90 5	Medium brown/ grey due to weak to moderate sericite +/- fine biotite alteration. Massive magnetite and stringers. Augite phenocrysts (moderately silicified) barely visible in unit, appears massive but porphyritic. Quartz/ zeolite veining, local increase between 652.14-652.40m - vuggy associated with rare py and cpy aggregates.	117469	0.248	0.497
654.00	655.75	Fine-medium-grained green brown chloritic silicic	1.0 0.1	5	207 QZV 90 10	Medium sericite +/- fine biotite alteration. Moderately silicified, augite phenocrysts barely visible, porphyritic. Augite and plagioclase phenocrysts visible in less silicified portions. Disseminated py and cpy and aggregates in flow, also associated with quartz/ zeolite veining with magnetite aggregates. Local increase in stringers between 654.95-655.07m.	117470	0.123	0.262
<b>655.75</b>	<b>656.96</b>	<b>QUARTZ MONZONITE</b>							
655.75	656.96	Fine-medium-grained pink silicic epidote	1.0 0.1	2	30 QZV 90 7	Plagioclase and K-feldspar phenocrysts in pink/ brown matrix, possibly quartz monzodiorite as in sample 117466. Silicified py/ cpy/ aggregates and veining associated with quartz/ zeolite veining and weak epidote alteration. Vuggy. Possibly weak potassic altered portions.	117471	0.122	0.26
<b>656.96</b>	<b>669.65</b>	<b>BASALT FLOW</b>							
656.96	659.00	Fine-medium-grained medium brown sericitic epidote	0.5	3	95 QZMOV 0 10	Brown colour due to moderate sericite +/- fine biotite alteration. Plagioclase and augite phenocrysts in weak silicified portions. Quartz/ zeolite veining associated with molybdenum rare. Rare disseminated py and aggregates.	117472	0.373	1.11
659.00	660.00	Fine-medium-grained medium green sericitic chloritic		1	10 QZV 70 7	Brown colour and augite and plagioclase phenocrysts as above.	117473	0.279	0.597

**Hole Number: KN-02-49**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
660.00	662.00	Fine-medium-grained brown green sericitic silicic	2.0 0.1	3	18 QZV 90 10	Brown/ green colour, brown due to moderate sericite +/- fine biotite alteration. Augite phenocrysts visible in moderate silicified portions. Plagioclase and augite phenocrysts visible in weakly silicified portion. Disseminated py +/- cpy and aggregates. Magnetite aggregates and stringers. Quartz/ zeolite veining at 661.60m associated with py and cpy aggregates. Magnetite aggregates.	117474	0.288	0.509
662.00	664.00	Fine-medium-grained medium brown sericitic silicic	3.0 0.1	5	38 QZV 90 15	Brown colour due to weak to moderate sericite +/- fine biotite alteration. Magnetite stringers. Quartz/ zeolite veining locally associated with py aggregates and magnetite veining. Disseminated py and cpy also in flow. Local increase in quartz/ zeolite veining.	117475	0.359	0.724
664.00	666.00		4.0 0.2	5	26 QZV 90 10	Cpy and py aggregates associated with quartz/ zeolite veining at about 668.35m. Brown colour due to weak sericite +/- fine biotite alteration. Smokey grey quartz veining associated with py/ cpy aggregates at about 664.60m	117476	0.18	0.585
666.00	668.00	Fine-medium-grained brown green sericitic silicic	3.0 0.2	5	59 QZV 90 15	Py and cpy aggregates associated with quartz/ zeolite veining and weak epidote alteration locally at 666.19-666.22m. Brown/ green colour due to weak sericite +/- fine biotite alteration. Magnetite stringers.	117477	0.228	0.493
668.00	669.65	Fine-medium-grained brown green sericitic chloritic	3.0 0.5	7	163 QZMOV 90 10	Brown/ green colour as above. Massive magnetite and stringers. Augite and plagioclase phenocrysts visible in weakly silicified portion. Quartz/ zeolite veining associated with py and cpy aggregates and magnetite and rare molybdenum aggregates between 668.46-668.51m. Local increase in quartz/ zeolite veining. Weakly silicified portion.	117478	0.278	0.646

669.65 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-50**

Northing: 14910.0	Total Depth: 620.43m
Easting: 8839.97	Azimuth: 360°
Elevation: 1746.6	Dip: -80°

Geologist: B.LaPeare/E.
Logged Date: 10/20/200

Survey Depth	Azimuth	Dip	Comments:
81 m	0 °	-80 °	
163 m	0 °	-80 °	
255 m	6 °	-80 °	
346 m	5 °	-80 °	
438 m	11 °	-80 °	
529 m	13 °	-80 °	
620 m	14 °	-80 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-50**

From (m)	To (m)	Rock Type	Comments
0	1.52	CASING	Overburden
1.52	22.4	ANDESITE FLOW	Very dark gray from weak, pervasive biotite alt'n. Moderate hardness from pervasive silica-silicification (?)
22.4	23.9	MAFIC DYKE	Weakly calcitic; calcite stringers; sharp lower contact.
23.9	40.7	ANDESITE FLOW	Local low angle, wispy qtz veinlet (<1 cm) with w.d. pyrite.
40.7	41.5	MAFIC DYKE	Same as 118643; contacts roughly @ 40 to 50 degrees t.c.a.
41.5	80.35	ANDESITE FLOW	Locally plag phyric.
80.35	81.25	MAFIC DYKE	Amygduloidal; locally flow banded; calcite stringers; lower contact @ 50 degrees t.c.a.
81.25	85.85	ANDESITE FLOW	Silicified, with epidote alt'n; patchy pyrite with qtz.
85.85	87.95	MAFIC DYKE	Upper contact @ 20 degrees t.c.a.
87.95	89.5	ANDESITE FLOW	W.d slickensides on low angle fractures sub-perpendicular to fractures; epidote with qtz +/- pyrite.
89.5	92.25	MAFIC DYKE	Upper contact fractured; carb locally pinkish.
92.25	365.3	ANDESITE FLOW	Patchy cpy with qtz infill.
365.3	373.6	QUARTZ MONZONITE DYKE	75 % plag phenocrysts- clast supported; one magnetite veinlet.
373.6	381	ANDESITE FLOW	Phyric; porphyritic flow.

Hole Number: **KN-02-50**

From (m)	To (m)	Rock Type	Comments
381	387.67	BASALT	**Eric Ramsay logged the remainder of hole** Greenish black, magnetic, porphyritic basalt/andesite showing 1 to 3% medium-sized euhedral to subhedral augite phenocrysts and locally up to %5 medium-sized feldspar laths. Rock is very hard (silicified), possibly slightly recrystallized (hornfels?) with trace to !% pyrite disseminated throughout, and local traces of chalcopyrite. Traces of visible magnetite in qtz-filled fractures. Weak fracturation with zeolite/carbonate infilling.
387.67	388.15	QUARTZ MONZONITE	Very irregular contact @ 40 degrees t.c.a. with next unit. Medium-grained porphyritic qtz-monzonite dykelet, orange-gray (hematite staining of feldspar).
388.15	389.33	BASALT FLOW BRECCIA	Vuggy carbonate infill/replacement along fault plane.
389.33	395	MONZONITE	Weakly chloritized, hematite stained orange-gray porphyritic monzonite, sharp upper contact @ 20 degrees t.c.a. with brecciated texture in the first 25 cm.
395	404.4	BASALT	
404.4	409.7	TOODOGGONE BRECCIA DYKE	Broken core- very low recovery. Fragmental unit showing mm to cm-sized fragments of qtz and qtz/mag/py veins, and cm to dm-sized fragments of monzonite and Takla volcanics. Interpreted to be some sort of feeder dyke/explosive Toodoggone-aged breccia. Most of the pyrite mineralization is early (emplaced in the fragments, not the matrix).
409.7	425.22	MONZONITE	Medium-grained phaneritic, slightly porphyritic, medium greenish-gray monzonite showing 1 to 2% mafic (Takla?) centimetric xenoliths. Very weak chloritization of biotite. Trace epidote.
425.22	457.35	BASALT	Greenish black porphyritic basalt showing 1-3% medium-grained euhedral to subhedral augite phenocrysts in a matrix of fine to medium grained feldspar laths and aphanitic material. Augite is weakly chloritized (green) and rock locally shows epidote. Rock is injected with qtz/magnetite/+/-py/+/- cpy veins and veinlets.
457.35	461	BLADED FELDSPAR PORPHYRY	Sub centimetric black feldspar laths (bladed feldspar porphyry), qtz/mag veins.
461	493.09	BASALT	Augite phenocrysts disappear. Qtz/mag/+/- py/+/- cpy veins.
493.09	496.8	MONZONITE	Greenish gray to locally orange gray, medium grained monzonite, locally porphyritic but generally homogranular. Qtz/mag veins quickly become rare. Weak clay alt'n of feldspar next to Fe-ox stained fractures, but otherwise fresh. Pink zeolite/carb veinlets.

Hole Number:

**KN-02-50**

From (m)	To (m)	Rock Type	Comments
496.8	497.2	MAFIC DYKE	Black, mafic amygdular post-mineralization dyke. Contact @ 30 degrees t.c.a. with next unit.
497.2	497.95	MONZONITE	Qtz/mag vein @ 70 degrees t.c.a.
497.95	498.42	MAFIC DYKE	Black, mafic amygdular post-mineralization dyke. Upper contact @ 40 degrees t.c.a.
498.42	514.9	MONZONITE	Upper contact @ 30 degrees t.c.a.
514.9	515.45	MONZONITE DYKE	3 centimetric, sub-parallel dykelets, same composition as next unit. Contact @ 25 degrees t.c.a.
515.45	516.25	MAFIC DYKE	Fine grained, amygdular mafic post-mineralization dyke. Contact with next unit @ 50 degrees t.c.a.
516.25	518	MONZONITE DYKE	2 centimetric dykelets, same composition as previous unit, orientation variable.
518	534	MONZONITE	
534	536	MONZONITE DYKE	
536	536.9	MONZONITE	Bottom contact @ 30 degrees t.c.a.
536.9	538.8	MAFIC DYKE	Post-mineralization, amygdular, mafic dykelet, aphyric, contacts @ 30 degrees t.c.a.
538.8	539.19	MONZONITE	Bottom contact broken. Broken core, gougy planes (fault?)
539.19	543.35	MAFIC DYKE	Rock is fractured, with zeolite/carb infilling.
543.35	544.63	PYRITE ZONE	Massive pyrite vein showing brecciation texture (pyrite fragments cemented by pyrite) @ 30 degrees t.c.a.
544.63	623.32	MONZONITE	Brecciated monzonite with pyrite infill.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	1.52	<b>CASING</b>							
0.00	1.52					Overburden	50	-2	-2
1.52	22.4	<b>ANDESITE FLOW</b>							
1.52	3.00	Fine-grained dark grey silicic biotite	3.0	0.3	3 19 QVN	3 Very dark gray from weak, pervasive biotite alt'n. Moderate hardness from pervasive silica- silicification (?)	118632	0.052	0.163
3.00	5.00		4.0	1	6 QCV 10	3 Qtz/carb +/- pyrite stringers and veinlets at low angles t.c.a.	118633	0.04	0.078
5.00	7.00		4.0	2	24 QCV 10	4 Low angle stringers with one 7 cm veinlet with calcite @ 50 degrees t.c.a.; weak cpy in qtz/carb veinlet.	118634	0.044	0.057
7.00	9.00		3.0	2	24 QCV 15	2 Biotite and sericite alt'n locally enhanced. Plagioclase is phytic.	118635	0.033	0.07
9.00	11.00		4.0	1	15 QCV 2	2 Plag phytic; pyrite as stringers, locally- to wispy, fracture fill, to locally disseminated.	118636	0.045	0.097
11.00	13.00		5.0	1	3 QVN 20	2 Qtz and pyrite stringers and veinlets locally w.d.	118637	0.054	0.098
13.00	15.00		3.0	2	31 QVN 30	2 Plag phytic; epidote as weak w.r. alt'n at qtz veinlet; local pyrite stringers.	118638	0.033	0.037
15.00	17.00		2.0	2	14 QCV 20	3 One qtz/carb veinlet with w.d. epidote alt'n; pyrite mostly as rare veinlets; weak, pinkish FeCaO on local fractures.	118639	0.011	0.03
17.00	19.00		2.0	2	1 QVN 2	2 Weakly magnetic only locally. Mostly non-magnetic.	118640	0.048	0.082
19.00	21.00		4.0		0 QVN 3	3 Pyrite locally disseminated proximal to qtz and pyrite veinlets.	118641	0.108	0.184
21.00	22.40		3.0	1	4 QCV 4	4 Two qtz stringers with v.f.g., pinkish, patchy kfsp alt'n.	118642	0.075	0.102
22.4	23.9	<b>MAFIC DYKE</b>							
22.40	23.90	Fine-medium-grained		2	30 CCV 2	2 Weakly calcitic; calcite stringers; sharp lower contact.	118643	0.009	0.012
23.9	40.7	<b>ANDESITE FLOW</b>							
23.90	26.00	Fine-grained dark grey silicic biotite	6.0	1	2 QVN 10	5 Local low angle, wispy qtz veinlet (<1 cm) with w.d. pyrite.	118644	0.063	0.126
26.00	28.00		8.0	1	10 QCV 5	5 W.d. disseminated pyrite thins out; local qtz flooding with patchy iron carbonate.	118645	0.095	0.143

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
28.00	30.00	Fine-grained dark grey silicic biotite	5.0	0.1	0 QVN	2 Pyrite as wispy, low angle stringers and disseminations; cpy speck in qtz veinlet with pyrite.	118646	0.063	0.079
30.00	32.00		5.0	1	1 QCV	2 20 cm sericite/qtz alt'n associated with patchy qtz infill with pinkish iron carbonate; pyrite veinlets locally w.d.	118647	0.063	0.081
32.00	34.00		3.0	3	37 QCV	2 Pinkish iron carbonate (zeolite?) cross-cut qtz; magnetic in lower half of sample.	118648	0.073	0.273
34.00	36.00		4.0	1.0	0 QCV	4 W.d. cpy in one low angle qtz/weak calcite veinlet.	118649	0.069	0.377
36.00	38.00		3.0		0 QCV	3 Pinkish iron carb high angle veinlet; pyrite mostly disseminated.	118651	0.075	0.104
38.00	39.40		6.0		1 QCV	2 Pyrite as patchy with qtz infill, and disseminated throughout.	118652	0.075	0.1
39.40	40.70		7.0	1	17 QCV	2 Locally w.d. pyrite with local qtz infill and sericite alt'n; patchy epidote alt'n.	118653	0.052	0.193
40.7	41.5	<b>MAFIC DYKE</b>							
40.70	41.50	Fine-medium-grained		2	11 CCV	2 Same as 118643; contacts roughly @ 40 to 50 degrees t.c.a.	118654	0.055	0.199
41.5	80.35	<b>ANDESITE FLOW</b>							
41.50	43.00	Fine-grained dark grey silicic biotite	2.0	2	16 QCV	2 Locally plag phyrlic.	118655	0.062	0.109
43.00	45.00		2.0	2	15 QCV	7 Pinkish fe carb/zeolite stringers cross-cut qtz and epidote veinlets; pinkish veinlets locally high density.	118656	0.06	0.117
45.00	47.00		2.0		2 QCV	4 Pinkish fe carb/zeo locally cross-cuts qtz and pyrite stringers.	118657	0.058	0.101
47.00	49.00		4.0	0.1	1 14 QCV	6 Low angle pyrite stringers +/- weak cpy cross-cut by pink veinlets; pyrite locally w.d. with qtz flooding.	118658	0.07	0.131
49.00	51.00		2.0		5 QCV	4 Epidote locally with qtz veinlets.	118659	0.052	0.087
51.00	52.00		4.0	0.1	1 QVN	20 1 Locally w.d. pyrite as low angle veinlets with epidote alt'n.	118660	0.053	0.115
52.00	54.00		10.0	1	1 QVN	55 10 15 cm qtz with patchy chlorite; w.d. disseminated pyrite throughout lower part of sample; 2 thin pyrite and weak magnetite stringers.	118661	0.104	0.113
54.00	56.00		5.0	0.1	1 4 QVN	65 4 Pyrite persists 50 cm into sample; weak pyrite and cpy in qtz/hem veinlet.	118662	0.105	0.242
56.00	58.00		3.0	2	20 QVN	5 4 Pyrite and qtz veinlets sub-parallel t.c.a.; epidote with qtz veinlets locally.	118663	0.077	0.136
58.00	60.00		2.0	0.1	2 33 QVN	30 3 Epidote locally with qtz veinlets; pyrite stringers, pyrite with qtz; very weak cpy.	118664	0.052	0.08



**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
60.00	62.00	Fine-grained dark grey silicic biotite	2.0	2	23 QVN	1 Plag phyr/c/porphyritic flow.	118665	0.044	0.123
62.00	64.00		2.0	2	26 QCV	45 4	118666	0.061	0.295
64.00	66.00		3.0	0.3	1 19 QCV	2 Pyrite as random stringers +/- weak cpy	118667	0.097	0.237
66.00	67.50		2.0	0.5	1 7 QCV	3 Cpy locally with qtz infill within w.d. epidote alt'n- pinkish carb.	118668	0.068	0.17
67.50	68.80		2.0	0.3	2 29 QCV	60 5 Local qtz veinlets with w.d. pinkish iron (?) and sericite alt'n +/- calcite.	118669	0.222	0.58
68.80	71.00		2.0	0.3	3 51 QCV	4 Magnetite sporadic; qtz flooding infill with fe/epi alt'n; local cpy specks within epidote.	118670	0.091	0.524
71.00	73.00		1.0	0.5	1 5 QCV	10 5 Locally sericitic; epidote with pinkish carbonate; local cpy on fractures with qtz and carb.	118671	0.064	0.122
73.00	75.00		2.0	0.5	1 9 QCV	3 Pinkish carb (?) stringers; one high angle pyrite veinlet, with cpy.	118672	0.216	0.444
75.00	77.00	Fine-grained dark grey biotite silicic	3.0	2	14 QCV	10 3 Low angle pyrite stringers; epidote with pinkish veinlets.	118673	0.085	0.181
77.00	79.00		2.0	0.8	2 22 QCV	3 Local qtz flooding; cpy on fractures with qtz; epidote locally w.d.	118674	0.051	0.108
79.00	80.35		3.0		0 QVN	2 Silicified with qtz infill and epidote alt'n. Local pyrite stringers.	118675	0.113	0.259
<b>80.35</b>	<b>81.25</b>	<b>MAFIC DYKE</b>							
80.35	81.25	Fine-medium-grained		2	20 CCV	65 1 Amygduloidal; locally flow banded; calcite stringers; lower contact @ 50 degrees t.c.a.	118677	0.008	0.01
<b>81.25</b>	<b>85.85</b>	<b>ANDESITE FLOW</b>							
81.25	81.95	Fine-grained dark grey biotite silicic	2.0	1	20 QVN	7 Silicified, with epidote alt'n; patchy pyrite with qtz.	118678	0.058	0.125
81.95	82.45			2	14 CCV	65 2 Same as 118677.	118679	0.014	0.017
82.45	84.60		2.0	2	40 QCV	5 Pyroxene phyr/c; irregular w.d. calcite infill over 30 cm; local w.d. sericite alt'n.	118680	0.02	0.081
84.60	85.85		2.0		1 QCV	65 2 Silicified with diffuse sericite alt'n; pyrite patchy and stringers.	118681	0.073	0.155
<b>85.85</b>	<b>87.95</b>	<b>MAFIC DYKE</b>							
85.85	87.95	Fine-medium-grained dark grey		2	18 CCV	65 2 Upper contact @ 20 degrees t.c.a.	118682	0.008	-2
<b>87.95</b>	<b>89.5</b>	<b>ANDESITE FLOW</b>							
87.95	89.50	Fine-grained dark grey biotite silicic	2.0	2	28 QCV	45 4 W.d slickensides on low angle fractures sub-perpendicular to fractures; epidote with qtz +/- pyrite.	118683	0.005	0.026

## Hole Number: KN-02-50

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
89.5	92.25	<b>MAFIC DYKE</b>							
89.50	92.25	Fine-medium-grained dark grey		2	15 CCV	2 Upper contact fractured; carb locally pinkish.	118684	0.007	0.008
92.25	365.3	<b>ANDESITE FLOW</b>							
92.25	93.80	Fine-grained dark grey biotite silicic	2.0	0.5	3 QVN	30 2 Patchy cpy with qtz infill.	118685	0.149	0.307
93.80	96.00		2.0	0.3	2 25 QVN	65 3 One 4 cm qtz veinlet @ 65 degrees t.c.a. with w.d. magnetite and pyrite over 2 cm.	118686	0.072	0.134
96.00	98.00		2.0		2 21 QCV	2 W.d. patchy magnetite in qtz veinlet.	118687	0.041	0.074
98.00	100.00		3.0		2 17 QCV	3 Irregular pyrite stringers associated with local sericite alt'n; pyrite also disseminated.	118688	0.058	0.168
100.00	102.00	Fine-grained dark grey silicic biotite	1.0		2 22 QCV	3 Hematite common with carb veinlets; increase in hardness.	118689	0.029	0.033
102.00	104.00		1.0		2 31 CCV	2 Massive volcanics.	118690	0.052	0.094
104.00	106.00		1.0		2 24 QCV	1 As above.	118691	0.034	0.072
106.00	108.00		2.0		2 21 QCV	5 2 Low angle pyrite veinlets +/- carbonate.	118692	0.05	0.072
108.00	110.00		1.0		1 9 QCV	5 2 Local low angle fractures +/- calcite +/- qtz.	118693	0.032	0.039
110.00	112.00		2.0	0.1	2 29 QVN	30 1 Siliceous, phyrlic; one bleb of cpy with weak qtz infill; wispy pyrite @ 45 degrees t.c.a. with magnetite over 4 cm.	118694	0.043	0.055
112.00	114.00		1.0		2 18 CCV	60 4 Locally highly fractured; local high angle carb veinlets.	118695	0.046	0.072
114.00	116.00		1.0		1 10 CCV	60 10 Locally w.d. sericite and chlorite (?) alt'n; enhanced pyroxene phyrlic texture.	118696	0.05	0.101
116.00	118.00		1.0		2 30 QCV	1 Massive, siliceous/silicified phyrlic volcanics; magnetite throughout.	118697	0.011	0.047
118.00	120.00		2.0		1 17 QCV	2 Local low angle pyrite stringers.	118698	0.028	0.077
120.00	122.00		2.0		2 29 QCV	15 2 Local low angle fractures.	118699	0.025	0.054
122.00	124.00		2.0		1 19 CCV	45 6 Carb veinlets +/- weak pyrite.	118700	0.016	0.366
124.00	126.00		1.0		3 38 QCV	1 Local weak sericite alt'n.	118701	0.03	0.069
126.00	128.00		0.5		3 25 CCV	1 Magnetite with local calcite infill.	118703	0.033	0.09
128.00	130.00		1.0		3 39 CCV	1 Locally disseminated pyrite.	118704	0.035	0.103
130.00	132.00		1.0		2 12 CCV	3 Locally rubbly with weak, patchy pyrite on fractures; fractures chloritic.	118705	0.039	0.167
132.00	133.20		2.0		3 29 QCV	2 Pyrite on fracture planes and disseminated locally.	118706	0.165	0.518

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
133.20	134.40	Fine-grained dark grey sericitic chloritic	2.0	1	QCV 30	Pervasive w.d. patchy sericite, chlorite (?) and kfsp alt'n associated with calcite infill and weak epidote.	118707	0.156	0.329
134.40	136.00	Fine-grained dark grey silicic biotite	2.0	0.1	3 59 QCV 5	5 One low angle qtz/calcite vein with weak cpy as rare specks; mostly massive, phyrlic, siliceous volcanics.	118708	0.151	0.326
136.00	138.00		1.0	0.5	3 32 QCV 1	Minor cpy specks with weak calcite infill.	118709	0.058	0.145
138.00	140.00		0.5	2	15 QCV 50	2 One qtz and calcite vein 7 cm wide@ 50 degrees t.c.a.; plag phyrlic.	118710	0.032	0.075
140.00	142.00		1.0	4	45 QVN 15	2 Weak, patchy kfsp alt'n over 30 cm +/- epidote.	118711	0.046	0.103
142.00	144.00		1.0	3	37 QCV 30	4 Epidote +/- weak pyrite with local qtz stringers; one calcite vein (8 cm) @ 45 degrees t.c.a.	118712	0.049	0.068
144.00	146.00		3.0	3	22 QCV 2	Pyrite disseminated on local fractures and as thin stringers; pyroxene phyrlic locally.	118713	0.051	0.073
146.00	148.00		2.0	4	49 QCV 50	5 Qtz +/- calcite veining in lower 40 cm of interval with local thin banded magnetite; pyrite locally disseminated on fractures.	118714	0.064	0.193
148.00	150.00		3.0	3	36 QCV 80	7 One qtz veinlet with weak disseminated pyrite and weak, patchy kfsp; pyrite also with local qtz stringers and disseminated.	118715	0.096	0.115
150.00	152.00	Fine-grained dark grey biotite silicic	1.0	4	58 QCV 1	Wispy, patchy pyrite; weak epidote locally with qtz stringers	118716	0.059	0.106
152.00	154.00		3.0	2	19 QCV 3	Locally w.d. but disseminated pyrite over 30 cm; epidote with local qtz.	118717	0.06	0.119
154.00	156.00		3.0	4	54 QCV 3	As above; pyrite also as stringers.	118718	0.059	0.222
156.00	158.00		3.0	0.3	4 57 QCV 3	Patchy cpy with weak qtz and kfsp infill.	118719	0.068	0.14
158.00	160.00		2.0	4	56 QCV 2	15 cm of kfsp and epidote alt'n.	118720	0.061	0.132
160.00	162.00		1.0	3	33 QCV 2	Local low angle pinkish stringers (zeolite??)	118721	0.062	0.123
162.00	164.00		2.0	0.1	4 56 QCV 1	Plag phyrlic; siliceous and silicified; weak cpy with pyrite stringers.	118722	0.033	0.147
164.00	166.00		2.0	5	74 QCV 1	Patchy pyrite with local weak qtz infill.	118723	0.044	0.095
166.00	168.00		1.0	5	67 QCV 45	7 Qtz flooding/vein over 15 cm.	118724	0.033	0.07
168.00	170.00		1.0	5	64 QCV 40	3 Magnetite with < 1cm wide calcite veinlet.	118725	0.079	0.179
170.00	172.00		1.0	7	88	Weak, patchy epidote.	118726	0.027	0.095
172.00	174.00		3.0	5	64 QCV 1	Pyrite locally patchy to wispy, and as stringers.	118727	0.048	0.111
174.00	176.00		2.0	5	50 QCV 1	Magnetite with one calcite veinlet.	118729	0.062	0.124

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
176.00	178.00	Fine-grained dark grey biotite silicic	1.0	5	48 CCV	2 Local calcite infill with weak orange kfsp (?) alt'n.	118730	0.029	0.051
178.00	180.00		2.0	0.1	2 19 QCV	1 Pyrite +/- cpy with weak qtz.	118731	0.063	0.115
180.00	182.00		4.0	2	6 QCV 55	5 Wispy pyrite @ 60 degrees t.c.a., mostly in lower half of interval; associated with 12 cm qtz/mag vein.	118732	0.083	0.11
182.00	184.00		1.0	3	46 QVN	1 Locally phyrlic; local pyrite stringers (<1 mm).	118733	0.083	0.113
184.00	186.00		1.0	0.1	3 39 QVN	1 Moderate sericite w.r. alt'n with rare veinlets; cpy specks in one veinlet.	118734	0.04	0.071
186.00	188.00		3.0	0.3	3 46 QVN	1 Plag phyrlic; one bleb of cpy with very weak qtz infilling; local w.d. stringers/veinlets of pyrite.	118735	0.056	0.098
188.00	190.00		2.0	0.3	3 37 QVN	2 Cpy in one qtz veinlet.	118736	0.069	0.135
190.00	192.00		2.0	0.1	3 44 QCV 45	3 One vuggy calcite/Qtz veinlet; rare cpy with Qtz veinlet; 10 cm of weak kfsp alt'n; rare magnetite in stringers.	118737	0.07	0.144
192.00	194.00		2.0	5	66 QCV	2 10 cm band of weak kfsp w.r. alt'n at Qtz veinlet.	118738	0.116	0.21
194.00	196.00		2.0	3	36 QCV	1 Plag phyrlic.	118739	0.088	2.31
196.00	198.00		3.0	0.1	3 24 QCV	2 Pyrite with one Qtz veinlet; pyrite also locally disseminated; one speck of cpy with Qtz infill.	118740	0.102	0.146
198.00	200.00		1.0	1	15 QVN	2 Plag phyrlic- hard; no Qtz eyes; one magnetite and Qtz veinlet.	118741	0.063	0.119
200.00	202.00		2.0	3	38 QVN 5	2 One low angle Qtz and pyrite veinlet; plag altering to sericite; later hypabyssal.	118742	0.043	0.086
202.00	204.00		1.0	3	39 QVN	1 Plag phyrlic, sericitic phenocrysts; hypabyssal?	118743	0.042	0.112
204.00	206.00		2.0	3	31 QVN	2 Phyrlic texture grades out; weak disseminated pyrite and local veinlets; epidote with one Qtz veinlet.	118744	0.06	0.169
206.00	208.00		1.0	2	22 QCV 70	7 Locally fractured; two high angle Qtz/calcite veinlets.	118745	0.183	0.286
208.00	210.00		2.0	0.1	2 27 QVN	1 Rare magnetite stringers +/- pyrite; weak, rare disseminated cpy.	118746	0.096	0.183
210.00	212.00		1.0	5	70 QCV	1 Local low angle fractures with weak calcite and/or sericite.	118747	0.051	0.074
212.00	214.00		1.0	5	46 QVN	1 Rare local black fragments- flow by ??	118748	0.089	0.117
214.00	216.00		3.0	0.5	2 14 QVN	2 Locally developed pyrite +/- cpy.	118749	0.254	0.39
216.00	218.00		1.0	2	13 QCV	2 Rare, locally clustered fragments < 1 cm; local epidote with Qtz infill.	118750	0.054	0.084
218.00	220.00		2.0	0.3	3 32 QCV	2 Rare disseminated cpy at low angles; calcite stringer cross-cuts Qtz veinlet; local pyrite stringers.	118751	0.114	0.227

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
220.00	222.00	Fine-grained dark grey biotite silicic	2.0	2	16	Pyrite on local fractures.	118752	0.035	0.055
222.00	224.00		1.0	0.3	2 28 CCV	2 Rare, patchy pyrite proximal to rare coarse to v.f.g. black fragments; pinkish calcite stringers.	118753	0.092	0.14
224.00	226.00		2.0	0.3	2 30 QCV	2 Low angle qtz stringers/infill +/- pyrite +/- weak cpy	118755	0.13	0.192
226.00	228.00		1.0	0.3	2 30 QVN	1 Patchy sericite over 10 cm with irregular, very thin qtz stringers with weak pyrite +/- cpy.	118756	0.058	0.105
228.00	230.00		1.0	0.3	5 60 QCV	75 5 10 cm qtz/calcite veinlet with irregular magnetite and specks of cpy.	118757	0.082	0.162
230.00	232.00		4.0	0.3	2 20 QCV	50 7 Locally plag phyrlic (similar to above); 15 cm qtz/carb and dull orange alt'n (kfsp?) with rare cpy.	118758	0.159	0.23
232.00	234.00		2.0		2 18 QVN	1 Plag phyrlic; black clasts locally; local disseminated pyrite.	118759	0.079	0.138
234.00	236.00		2.0		2 13 QVN	2 Cpy with qtz stringers.	118760	0.109	0.18
236.00	238.00		2.0		2 16 QVN	2 Local, diffuse, f.g. kfsp (?) alt'n; blebs of cpy locally with qtz infill.	118761	0.105	0.198
238.00	240.00		2.0		22 QCV	1 Pyrite locally finely disseminated and with rare qtz stringers and veinlets.	118762	0.097	0.157
240.00	242.00		2.0	3	47 QCV	15 5 One w.d. patch of cpy with calcite; low angle barren qtz veinlet.	118763	0.056	0.118
242.00	244.00		2.0	3	32 QCV	3 One qtz veinlet with magnetite; locally disseminated pyrite +/- cpy; cpy also as weak, thin stringers.	118764	0.188	0.284
244.00	246.00		2.0		6 QCV	35 5 3 qtz +/- calcite veinlets, 1 to 3 cm wide +/- pyrite; proximal qtz flooding with disseminated pyrite.	118765	0.257	0.288
246.00	248.00		2.0	2	33 QCV	45 4 Rare blebs of cpy in volcanics.	118766	0.069	0.15
248.00	250.00		2.0	1	16 QCV	40 2 V.f.g. disseminated cpy locally over 25 cm.	118767	0.109	0.25
250.00	252.00		5.0	2	20 QCV	2 Locally fractured; pyrite locally well developed over 15 cm; one bleb of cpy.	118768	0.123	0.293
252.00	254.00		3.0	2	23 QCV	4 Local weak sericite alt'n over 30 cm associated with irregular/random qtz stringers.	118769	0.093	0.43
254.00	256.00		2.0	1	9 QCV	5 Calcite locally pinkish; locally pyroxene phyrlic; rare, hard, rounded black fragments.	118770	0.09	0.184
256.00	258.00		4.0		5 QCV	3 Disseminated pyrite +/- rare cpy throughout; pyrite in veinlets.	118771	0.128	0.196
258.00	260.00		4.0		7 QVN	1 Aphantic (cherty) qtz flooding with weak kfsp (?) and disseminated cpy over 15 cm.	118772	0.144	0.227

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
260.00	262.00	Fine-grained dark grey biotite silicic	2.0	3	35 QVN	2 Finely disseminated pyrite +/- very weak cpy; pyrite locally with qtz veinlets.	118773	0.076	0.126
262.00	264.00		1.0	4	57	Pyroxene phyrlic.	118774	0.137	0.173
264.00	266.00		1.0	1	11 QCV	1 Locally patchy, fe stained aphanitic qtz; qtz flooding locally pervasive; blebs of cpy.	118775	0.096	0.201
266.00	268.00		1.0	2	29 QCV	1 Patchy qtz/kfsp with finely disseminated cpy locally over 30 cm.	118776	0.329	0.706
268.00	270.00		3.0	2	24 QCV	35 2 Very finely disseminated pyrite throughout most of sample.	118777	0.22	0.344
270.00	272.00		3.0	2	16 QVN	3 Diffuse local orange kfsp (?) alt'n with locally disseminated cpy; one pyrite veinlet and two qtz/mag veinlets.	118778	0.183	0.234
272.00	274.00		3.0	4	84 QVN	3 Aphanitic, cherty, orangish qtz veinlets; disseminated pyrite; magnetite variable.	118779	0.156	0.23
274.00	276.00		1.0	1	12 QVN	70 2	118781	0.053	0.072
276.00	278.00		2.0	5	54 QVN	1 Decrease in disseminated pyrite; local weak sericite w.r. alt'n with one kfsp/qtz veinlet.	118782	0.076	0.115
278.00	280.00				10	Diffuse, patchy qtz infill with kfsp and sericite alt'n and finely disseminated pyrite over 30 cm; moderately to strongly magnetic.	118783	0.12	0.089
280.00	282.00		2.0	1	9 QVN	1 Qtz flooding with patchy epidote and kfsp alt'n and finely disseminated pyrite.	118784	0.132	0.08
282.00	284.00		3.0	1	12 QVN	1 Pinkish kfsp locally (10 cm) epidote, pyrite and magnetite.	118785	0.115	0.111
284.00	286.00	Fine-medium-grained dark grey biotite silicic	2.0	4	50 QCV	3 Locally phyrlic; pyrite on fractures; qtz/calcite as random stringers; magnetite throughout.	118786	0.046	0.059
286.00	288.00		2.0	4	25 QCV	3 As above.	118787	0.039	0.068
288.00	290.00		2.0	4	40 CCV	2 phyrlic; semi-pervasive sericite alt'n; pyrite on fractures.	118788	0.062	0.1
290.00	292.00		2.0	4	43 QCV	2 Weakly/locally phyrlic- fine to m.g. plag phenocrysts.	118789	0.05	0.298
292.00	294.00		1.0	3	29 QCV	2 Local sericite alt'n as w.r. alt'n of stringers; local rare, black, v.f.g. fragments.	118790	0.039	0.065
294.00	296.00		2.0	3	31 QCV	2 Patchy cpy with low angle qtz/calcite stringers and within volcanics.	118791	0.082	0.236
296.00	298.00		1.0	4	44 QCV	2 Rare epidote as weak, patchy w.r. alt'n locally.	118792	0.02	0.036
298.00	300.00		2.0	4	43 QCV	2 Patchy cpy with low angle wispy qtz.	118793	0.08	0.182

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
300.00	302.00	Fine-medium-grained dark grey biotite silicic	1.0	3	31 CCV	4 Sericite mostly associated with calcite veinlets, and with locally w.d. phyrlic sections with disseminated pyrite.	118794	0.116	0.183
302.00	304.00		3.0	1	5 QCV	2 Sericite locally pervasive with phyrlic interval; local disseminated pyrite.	118795	0.08	0.105
304.00	306.00	Fine-medium-grained dark green sericitic silicic	3.0	1	5 QCV	2 Includes a 60 cm interval of sericite +/- kfsp +/- patchy epidote with medium grained plag phenocrysts.	118796	0.09	0.124
306.00	308.00	Fine-medium-grained grey-green sericitic silicic	2.0	1	14 QCV	30 5 7 cm qtz veinlet with magnetite stringers parallel within qtz.	118797	0.079	0.105
308.00	310.00	Fine-grained grey-green sericitic silicic	2.0		2 QCV	1 Mostly fine grained but locally w.d. phyrlic texture (hypabyssal?)	118798	0.087	0.086
310.00	312.00		2.0	4	45 QCV	2 Patchy kfsp and chl alt'n over 20 cm with calcite veinlets and patchy pyrite.	118799	0.129	0.135
312.00	314.00		3.0	2	20 QCV	2 Coarse (4 to 8 cm) fragments (?) of medium grained phyrlic (hypabyssal?) in f.g. flow.	118800	0.109	0.128
314.00	316.00	Medium-grained light grey sericitic silicic	1.0		4 CCV	4 Medium grained, massive- starts @ 341.75 metres. "Spotted" phyrlic texture; local pinkish fe-carb veinlets.	118801	0.111	0.129
316.00	318.00	Fine-medium-grained dark grey silicic sericitic	2.0		5 QCV	1 Phyrlic texture more diffuse; significant increase in silica; weak, rare, local iron staining.	118802	0.07	0.13
318.00	320.00		4.0	3	37 QCV	1 As above.	118803	0.076	0.09
320.00	322.00		4.0	2	16 QCV	5 Local qtz veinlets +/- magnetite; random to local low angle pyrite stringers.	118804	0.105	0.128
322.00	324.00		3.0		6 CCV	1 Highly siliceous and silicified with micaceous clasts; locally disseminated pyrite, w.d.	118805	0.093	0.127
324.00	326.00		3.0	2	19 CCV	5 Moderate calcic infill over 25 cm with chloritic alt'n.	118807	0.099	0.147
326.00	328.00	Fine-medium-grained dark grey sericitic silicic	2.0	0.5	3 33 CZV	3 Decrease in silica; locally fractured with zeolite infill; cpy on rare fractures.	118808	0.093	0.118
328.00	330.00	Fine-medium-grained dark grey sericitic	1.0		5 49 QVN	2 One milky white qtz veinlet; magnetite.	118809	0.105	0.143
330.00	332.00		1.0	2	24 QCZV	5 Local increase in sericite alt'n; increase in pinkish carb/zeo stringers.	118810	0.034	0.057
332.00	334.00	Fine-medium-grained dark grey sericitic silicic	1.0	2	25 QCZV	3 Local increase in silica content; sericite locally w.d.; mottled.	118811	0.086	0.094
334.00	336.00		2.0	2	21 QCV	3 Mottled form patchy sericite alt'n; pyrite mostly with qtz veinlets/stringers.	118812	0.098	0.101
336.00	338.00	Fine-medium-grained dark grey sericitic	2.0	0.3	5 21 QVN	20	118813	0.047	0.055

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
338.00	340.00	Fine-medium-grained dark grey sericitic	1.0	2	20 QCV 70 7	Highly irregular qtz/mag veinlets; further mica in sericite alt'n; rare, patchy cpy high angle pinkish calcite veinlets in sericite alt'n.	118814	0.107	0.177
340.00	342.00				20	Top half of sample with high angle, pinkish calcite veinlets.	118815	0.077	0.113
342.00	344.00		1.0	2	18 CCV 40 4	Locally phyrlic in sericitic ground mass; 7 cm pinkish calcite veinlet.	118816	0.093	0.12
344.00	346.00		1.0	0.1	4 1 QVN 7	Patchy magnetite with local qtz veinlets; one speck of cpy in magnetite.	118817	0.092	0.146
346.00	348.00		1.0	0.3	1 QCV 3	Qtz flooding over 35 cm interval, with kfsp alt'n; one bleb (. 1cm) of cpy cross-cut by carb veinlet.	118818	0.1	0.182
348.00	350.00		2.0	1	17 QCV 2	Local, patchy magnetite infill. Pyrite in one high angle qtz veinlet.	118819	0.119	0.205
350.00	352.00		1.0	0.1	4 58 QCV 5	One pinkish calcite vein with one speck of cpy.	118820	0.088	0.177
352.00	354.00		2.0	4	3 QCV 4	Locally disseminated pyrite; patchy magnetite with local qtz infill/flooding.	118821	0.121	0.161
354.00	356.00		1.0	4	25 QCV 3	Slightly mottled.	118822	0.07	0.103
356.00	358.00		1.0	0.5	5 56 QCV 2	Small qtz-monzo dykelet in lower 50 cm of interval; cpy associated with qtz veinlet.	118823	0.066	0.094
358.00	360.00		1.0	2	10 QCV 3	Qtz/calcite veinlet with patchy magnetite.	118824	0.111	0.156
360.00	362.00		1.0	7	286 QCV 3	Magnetite veinlet at end of sample.	118825	0.074	0.121
362.00	364.00		1.0	5	82 QCV 5	Magnetite with pinkish qtz/calcite veinlets.	118826	0.096	0.228
364.00	365.30		1.0	5	44 QCV 65 20	Qtz veining +/- magnetite; lower contact @ 45 degrees t.c.a.	118827	0.083	0.17
365.3	373.6	<b>QUARTZ MONZONITE DYKE</b>							
365.30	367.00	Medium-grained grey-green porphyritic chloritic sericitic	1.0	2	12 QVN 55 2	75 % plag phenocrysts- clast supported; one magnetite veinlet.	118828	0.007	0.01
367.00	369.00		1.0	2	22 QVN 30 2	75 % plag phenocrysts- clast supported; local pinkish fe staining (kfsp?)	118829	0.005	0.013
369.00	371.00		1.0	2	28 QVN 45 4	75 % plag phenocrysts- clast supported.	118830	0.003	0.01
371.00	371.90		1.0	2	19 QVN 50 1		118831	0.002	0.008
371.90	373.60		1.0	2	18 QVN 25 1	75 % plag phenocrysts- clast supported; lower contact @ 60 degrees t.c.a.	118833	0.007	0.017
373.6	381	<b>ANDESITE FLOW</b>							



**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
373.60	375.00	Fine-medium-grained dark grey sericitic	1.0	2	22 QCV 55 4	Phyric; porphyritic flow.	118834	0.107	0.625
375.00	377.00		1.0	2	36 QCV 4		118835	0.047	0.081
377.00	379.00		1.0	2	13 QCV 4		118836	0.041	0.088
379.00	381.00		0.5	0.1	33 QCV 1	Low angle, wispy epidote associated with qtz infill. ** End of Brett LaPeare's logging/notes**	118837	0.202	0.371
<b>381</b>	<b>387.67</b>	<b>BASALT</b>							
381.00	383.00	Fine-medium-grained porphyritic silicic chloritic	0.5	0.1	1 66 QVN 5 2	**Eric Ramsay logged the remainder of hole** Greenish black, magnetic, porphyritic basalt/andesite showing 1 to 3% medium-sized euhedral to subhedral augite phenocrysts and locally up to %5 medium-sized feldspar laths. Rock is very hard (silicified), possibly slightly recrystallized (hornfels?) with trace to !% pyrite disseminated throughout, and local traces of chalcopyrite. Traces of visible magnetite in qtz-filled fractures. Weak fracturation with zeolite/carbonate infilling.	118838	0.115	0.202
383.00	385.00		0.5	0.1	21		118839	0.106	0.171
385.00	387.00		0.1	0	36		118840	0.051	0.08
387.00	387.67		0.5	0	18 CTC 70	Contact @ 70 degrees t.c.a. with next unit.	118841	0.196	0.3
<b>387.67</b>	<b>388.15</b>	<b>QUARTZ MONZONITE</b>							
387.67	388.15	Medium-grained orange grey porphyritic chloritic epidote	0.1	1	27 CTC 40	Very irregular contact @ 40 degrees t.c.a. with next unit. Medium-grained porphyritic qtz-monzonite dykelet, orange-gray (hematite staining of feldspar).	118842	0.014	0.037
<b>388.15</b>	<b>389.33</b>	<b>BASALT FLOW BRECCIA</b>							
388.15	389.33	Fine-coarse grained dark grey chloritic sericitic			14 FLT 10 90	Vuggy carbonate infill/replacement along fault plane.	118843	0.033	0.094
<b>389.33</b>	<b>395</b>	<b>MONZONITE</b>							
389.33	391.00	Medium-grained orange grey porphyritic chloritic	0.1		20 CTC 20	Weakly chloritized, hematite stained orange-gray porphyritic monzonite, sharp upper contact @ 20 degrees t.c.a. with brecciated texture in the first 25 cm.	118844	0.002	0.015
391.00	393.00		0.5		23		118845	0.002	0.02
393.00	393.80		0.5		15 CTC 40	Very irregular bottom contact @ ~ 40 degrees t.c.a. Petro sample taken between 393.00 to 393.25 metres.	118846	0.003	0.068

## Hole Number: KN-02-50

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
393.80	395.00	Fine-medium-grained porphyritic silicic chloritic	0.5	1	80	Minor monzodiorite dykelet between 393.99 to 394.12 metres- same as previous unit. Black, porphyritic basalt similar to 383.00 to 387.67 metres.	118847	0.031	0.124
<b>395</b>	<b>404.4</b>	<b>BASALT</b>							
395.00	397.00	Fine-medium-grained porphyritic silicic chloritic	0.5	1	58		118848	0.041	0.115
397.00	399.00		0.5	1	61		118849	0.069	0.183
399.00	401.00		0.5	1	193		118850	0.036	0.194
401.00	403.00		0.5	1	84		118851	0.009	0.034
403.00	404.40		0.5	1	76 CTC 30	Fabric/foliation @ 30 degrees t.c.a. near lower contact (fault?)	118852	0.08	0.261
<b>404.4</b>	<b>409.7</b>	<b>TOODOGGONE BRECCIA DYKE</b>							
404.40	406.00	Fine-coarse grained fragmental chloritic epidote	0.5	1	68	Broken core- very low recovery. Fragmental unit showing mm to cm-sized fragments of Qtz and Qtz/mag/py veins, and cm to dm-sized fragments of monzonite and Takla volcanics. Interpreted to be some sort of feeder dyke/explosive Toodoggone-aged breccia. Most of the pyrite mineralization is early (emplaced in the fragments, not the matrix).	118853	0.075	0.222
406.00	408.00		0.5	2	122		118854	0.055	0.214
408.00	409.70		0.5	1	47	Petro sample taken 408.78 to 409.05 metres.	118855	0.065	0.25
<b>409.7</b>	<b>425.22</b>	<b>MONZONITE</b>							
409.70	411.00	Medium-fine-grained green-grey porphyritic chloritic epidote	0.1		15	Medium-grained phaneritic, slightly porphyritic, medium greenish-gray monzonite showing 1 to 2% mafic (Takla?) centimetric xenoliths. Very weak chloritization of biotite. Trace epidote.	118856	0.018	0.049
411.00	413.00		1.0	1	59		118857	0.004	0.019
413.00	415.00	Medium-fine-grained green-grey porphyritic chloritic	1.0	1	29		118859	0.025	0.093
415.00	417.00		0.1	0.1	2 73		118860	0.027	0.082
417.00	419.00	Medium-fine-grained orange grey porphyritic chloritic	0.5	0.1	1 68		118861	0.022	0.109
419.00	421.00	Medium-fine-grained green-grey porphyritic chloritic epidote	1.0	2	61		118862	0.035	0.11
421.00	423.00		0.5	2	126		118863	0.036	0.091

## Hole Number: KN-02-50

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
423.00	425.22	Medium-fine-grained green-grey porphyritic chloritic epidote	1.0	2	96 CTC 90	Irregular contact with next unit.	118864	0.038	0.096
425.22	457.35	<b>BASALT</b>							
425.22	427.00	Fine-medium-grained porphyritic epidote chloritic	1.0	0.1	2 150	Greenish black porphyritic basalt showing 1-3% medium-grained euhedral to subhedral augite phenocrysts in a matrix of fine to medium grained feldspar laths and aphanitic material. Augite is weakly chloritized (green) and rock locally shows epidote. Rock is injected with Qtz/magnetite/+/-py/+/- cpy veins and veinlets.	118865	0.047	0.111
427.00	429.00		0.5	0.5	2 171	Qtz/mag/+/- py/+/- cpy veins.	118866	0.048	0.099
429.00	431.00		0.5	0.5	2 112		118867	0.111	0.254
431.00	433.00		0.1	0.1	1 67		118868	0.069	0.148
433.00	435.00		0.2	0.2	2 98		118869	0.082	0.217
435.00	437.00		0.1	0.1	2 158		118870	0.093	0.237
437.00	439.00	Fine-medium-grained porphyritic chloritic epidote	0.5	0.1	2 123 QVN	5	118871	0.075	0.203
439.00	441.00		0.1		1 72 QVN	3	118872	0.039	0.091
441.00	443.00		0.1	0.1	1 45 QVN	5	118873	0.037	0.08
443.00	445.00		0.1	0.1	2 109 QVN	10	118874	0.046	0.109
445.00	447.00		0.1	0.1	2 104 QVN	4	118875	0.065	0.169
447.00	449.00		0.5		2 102 QVN	10	118876	0.07	0.151
449.00	451.00		0.5	0.1	2 153 QVN	7	118877	0.025	0.061
451.00	453.00		1.0	0.1	2 110 QVN	3	118878	0.062	0.116
453.00	455.00		0.1	0.1	2 80 QVN	6	118879	0.044	0.097
455.00	457.35		0.1	0.1	2 54 QVN	10	118880	0.059	0.128
457.35	461	<b>BLADED FELDSPAR PORPHYRY</b>							
457.35	459.00	Fine-medium-grained chloritic epidote	0.1		2 78 QVN	5	118881	0.059	0.139
459.00	461.00		0.5	0.1	2 122 QVN	10	118882	0.065	0.12
461	493.09	<b>BASALT</b>							
461.00	463.00	Fine-medium-grained chloritic epidote	1.0	0.1	2 140 QVN	7	118883	0.086	0.164

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
463.00	465.00	Fine-medium-grained chloritic epidote	1.0 0.1	2 164	QVN 3	Qtz/mag/+/- py/+/-cpy veins with traces of molybdenite.	118885	0.079	0.185
465.00	467.00		0.1	2 194	QVN 5		118886	0.074	0.173
467.00	469.00		1.0 0.1	2 124	QVN 5		118887	0.038	0.096
469.00	471.00		1.0 0.1	2 86	QVN 10		118888	0.056	0.108
471.00	473.00		1.0 0.1	1 40	QVN 10		118889	0.044	0.067
473.00	475.00		1.0 0.1	2 107	QVN 10		118890	0.11	0.192
475.00	477.00		2.0 0.1	2 133	QVN 10		118891	0.061	0.138
477.00	479.00		2.0	2 139	QVN 20	Qtz/mag/+/- py/+/-cpy.	118892	0.05	0.128
479.00	481.00		0.1 0.1	5 230	QVN 3		118893	0.071	0.151
481.00	483.00		1.0 0.1	2 109	QVN 4	Weak clay/sericite alt'n, soaking up the water.	118894	0.032	0.099
483.00	485.00		1.0	2 80	QVN 10		118895	0.041	0.083
485.00	487.00		0.5 0.1	2 94	QVN 10		118896	0.057	0.1
487.00	489.00		0.5 0.1	2 89	QVN 10		118897	0.027	0.06
489.00	491.00		0.5	2 97	QVN 10		118898	0.036	0.223
491.00	493.09		0.1 0.1	1 55	QVN 10		118899	0.057	0.102
493.09	496.8	<b>MONZONITE</b>							
493.09	495.00	Medium-grained dark grey porphyritic chloritic epidote	1.0 0.1	2 26	QVN 10	Greenish gray to locally orange gray, medium grained monzonite, locally porphyritic but generally homogranular. Qtz/mag veins quickly become rare. Weak clay alt'n of feldspar next to Fe-ox stained fractures, but otherwise fresh. Pink zeolite/carb veinlets.	118900	0.028	0.068
495.00	496.80	Medium-grained dark grey porphyritic	1.0	2 48	CTC 30	Contact @ 30 degrees t.c.a. with next unit.	118901	0.037	0.092
496.8	497.2	<b>MAFIC DYKE</b>							
496.80	497.20	Fine-grained amygdular		20	CTC 30	Black, mafic amygdular post-mineralization dyke. Contact @ 30 degrees t.c.a. with next unit.	118902	0.007	0.008
497.2	497.95	<b>MONZONITE</b>							
497.20	497.95	Medium-grained dark grey porphyritic	1.0	0 6	QVN 70 1	Qtz/mag vein @ 70 degrees t.c.a.	118903	0.027	0.051
497.95	498.42	<b>MAFIC DYKE</b>							

**Hole Number: KN-02-50**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
497.95	498.42	Fine-grained amygdular		27	CTC 40	Black, mafic amygdular post-mineralization dyke. Upper contact @ 40 degrees t.c.a.	118904	0.007	0.007
<b>498.42</b>	<b>514.9</b>	<b>MONZONITE</b>							
498.42	500.00	Medium-grained dark grey porphyritic	0.5	16	CTC 30	Upper contact @ 30 degrees t.c.a.	118905	0.011	0.019
500.00	502.00	Medium-grained orange grey porphyritic clay	0.2	0.1	23		118906	0.012	0.018
502.00	504.00	Medium-grained dark grey porphyritic	0.5		25		118907	0.026	0.061
504.00	506.00	Medium-grained orange grey porphyritic clay	1.0		20		118908	0.015	0.031
506.00	508.00	Medium-grained dark grey porphyritic	0.1		18		118909	0.02	0.039
508.00	510.00		0.5	0.1	13		118911	0.02	0.048
510.00	512.00	Medium-grained orange grey porphyritic	0.5		11		118912	0.01	0.021
512.00	514.00	Medium-grained dark grey porphyritic	0.5		0		118913	0.014	0.032
514.00	514.90		0.5		23		118914	0.014	0.068
<b>514.9</b>	<b>515.45</b>	<b>MONZONITE DYKE</b>							
514.90	515.45	Medium-grained dark grey porphyritic		10	CTC 25	3 centimetric, sub-parallel dykelets, same composition as next unit. Contact @ 25 degrees t.c.a.	118915	0.028	0.038
<b>515.45</b>	<b>516.25</b>	<b>MAFIC DYKE</b>							
515.45	516.25	Fine-grained amygdular		32	CTC 50	Fine grained, amygdular mafic post-mineralization dyke. Contact with next unit @ 50 degrees t.c.a.	118916	0.01	-2
<b>516.25</b>	<b>518</b>	<b>MONZONITE DYKE</b>							
516.25	518.00	Medium-grained orange grey porphyritic clay	1.0		1	2 centimetric dykelets, same composition as previous unit, orientation variable.	118917	0.032	0.061
<b>518</b>	<b>534</b>	<b>MONZONITE</b>							
518.00	520.00	Medium-grained dark grey porphyritic	0.1		25		118918	0.013	0.025
520.00	522.00		0.5		18		118919	0.01	0.026
522.00	524.00		0.5	1	34		118920	0.016	0.037
524.00	526.00		1.0		11		118921	0.007	0.028

## Hole Number: KN-02-50

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
526.00	528.00	Medium-grained dark grey porphyritic	1.0	18			118922	0.005	0.019
528.00	530.00		0.5	0	16		118923	0.011	0.036
530.00	532.00		0.1	1	19 QVN	30 3 Qtz/mag/py vein.	118924	0.008	0.026
532.00	534.00		0.5	7	CTC	25 Post-mineralization mafic dykelet between 532.74 and 532.94 metres, similar to 515.45 to 516.25 metres.	118925	0.014	0.039
<b>534</b>	<b>536</b>	<b>MONZONITE DYKE</b>							
534.00	536.00	Medium-grained orange grey porphyritic	0.5	1			118926	0.007	0.044
<b>536</b>	<b>536.9</b>	<b>MONZONITE</b>							
536.00	536.90	Medium-grained grey porphyritic	0.5	4	CTC	30 Bottom contact @ 30 degrees t.c.a.	118927	0.008	0.377
<b>536.9</b>	<b>538.8</b>	<b>MAFIC DYKE</b>							
536.90	538.80	Fine-grained amygdular		30	CTC	30 Post-mineralization, amygdular, mafic dykelet, aphyric, contacts @ 30 degrees t.c.a.	118928	0.007	0.091
<b>538.8</b>	<b>539.19</b>	<b>MONZONITE</b>							
538.80	539.19	Medium-grained green-grey porphyritic chloritic	10.0	2	PVN	30 10 Bottom contact broken. Broken core, gougy planes (fault?)	118929	0.012	1.815
<b>539.19</b>	<b>543.35</b>	<b>MAFIC DYKE</b>							
539.19	541.00	Fine-grained amygdular		24		Rock is fractured, with zeolite/carb infilling.	118930	0.007	0.016
541.00	543.35			14	CTC	30 Bottom contact @ ~ 30 degrees t.c.a.	118931	0.007	0.024
<b>543.35</b>	<b>544.63</b>	<b>PYRITE ZONE</b>							
543.35	544.63	Medium-grained yellow brecciated	00.0	1	PVN	30100 Massive pyrite vein showing brecciation texture (pyrite fragments cemented by pyrite) @ 30 degrees t.c.a.	118932	0.02	2.76
<b>544.63</b>	<b>623.32</b>	<b>MONZONITE</b>							
544.63	545.50	Medium-grained orange grey brecciated	5.0	0	PVN	5 Brecciated monzonite with pyrite infill.	118933	0.007	3.48
545.50	547.00	Medium-grained orange grey porphyritic	1.0	0			118934	0.003	0.236
547.00	549.00		1.0	17			118935	0.005	0.071
549.00	551.00	Medium-grained grey porphyritic	1.0	10		Fractured with zeolite and carb infill.	118937	0.02	0.07
551.00	553.00		1.0	0	19 QVN	30 2 Qtz/py vein.	118938	0.016	0.152
553.00	555.00		0.1	7			118939	0.021	0.08

## Hole Number: KN-02-50

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
555.00	557.00	Medium-grained orange grey porphyritic	0.5	0.1	0	0	118940	0.03	0.066
557.00	559.00	Medium-grained grey porphyritic	0.5	0	24		118941	0.013	0.047
559.00	561.00	Medium-grained orange grey porphyritic	0.5	0	1		118942	0.01	0.033
561.00	563.00	Medium-grained grey porphyritic	0.5	0	24		118943	0.011	0.041
563.00	565.00		1.0	0	19		118944	0.012	0.056
565.00	567.00		0.5	0	18		118945	0.007	0.041
567.00	569.00		0.5		10		118946	0.008	0.098
569.00	571.00		0.5		9		118947	0.004	0.393
571.00	573.00		0.5		5		118948	0.002	0.051
573.00	575.00	Medium-grained orange grey porphyritic clay	0.5		1		118949	0.003	0.073
575.00	577.00	Medium-grained grey porphyritic	0.5	0	20		118950	0.007	0.072
577.00	579.00		0.1		22		118951	0.007	0.252
579.00	581.00		0.1	0	20		118952	0.007	0.043
581.00	583.00		0.1		5		118953	0.007	0.025
583.00	585.00		1.0	0	19		118954	0.007	0.027
585.00	587.00		0.1	0	17		118955	0.015	0.084
587.00	589.00	Medium-grained orange grey porphyritic clay	1.0	0	25	Weak clay alteration along fractures.	118956	0.006	0.021
589.00	591.00	Medium-grained grey porphyritic	1.0	0	17		118957	0.006	0.019
591.00	593.00		0.1	0	17		118958	0.009	0.017
593.00	595.00	Medium-grained orange grey porphyritic clay	1.0		7	Weak clay alteration along fractures.	118959	0.004	0.014
595.00	597.00		1.0		10	Zeolite-carb filled fractures.	118960	0.009	0.021
597.00	599.00		0.1	0	17 QVN	2	118961	0.008	0.035
599.00	601.00		1.0	0	18 QVN	2	118963	0.006	0.035
601.00	603.00	Medium-grained grey porphyritic	0.1		28		118964	0.006	1.85
603.00	605.00		1.0		19		118965	0.004	0.012
605.00	607.00	Medium-grained orange grey porphyritic clay	0.5	0	17 QVN	2	118966	0.003	0.017

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
607.00	609.00	Medium-grained grey porphyritic	2.0	17	PVN	2	118967	0.009	0.048
609.00	611.00		0.1	22			118968	0.006	0.017
611.00	613.00		0.5	17			118969	0.007	0.018
613.00	615.00		0.5	24			118970	0.007	0.018
615.00	617.00		0.1	0	26		118971	0.007	0.013
617.00	619.00		1.0	15			118972	0.005	0.012
619.00	621.00	Medium-grained orange grey porphyritic	0.1	1			118973	0.005	0.014
621.00	623.32	Medium-grained grey porphyritic	1.0	1			118974	0.006	0.027
623.32		EOH							



# Kemess North 2002 - Diamond Drill Log



Hole Number: *KN-02-51*

Northing: 14969.9    Total Depth: 668.29m  
Easting: 9069.6    Azimuth: 0°  
Elevation: 1877.6    Dip: -90°

Geologist: J.Mazvihwa  
Logged Date: 10/6/2002

Survey Depth	Azimuth	Dip	Comments:
30 m	0 °	-88 °	
122 m	0 °	-90 °	
213 m	0 °	-89 °	
305 m	0 °	-89 °	
396 m	0 °	-90 °	
488 m	0 °	-90 °	
579 m	0 °	-90 °	
667 m	0 °	-90 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-51**

From (m)	To (m)	Rock Type	Comments
0	2.13	CASING	
2.13	3.66	BASALT FLOW	Rubble. Broken. Joint planes lined by red/black hematite, oxidized. Rare qtz/zeo also lining joints. Chloritic, weak to moderately silicified with patchy epidote alt'n. Poor core recovery.
3.66	6.1	ANDESITE FLOW	Rubble from ~ 3.66 to 4.00 metres. Chloritic, joints lined with hematite. Andesitic gray/green flow from 4.00 to 6.10 metres- mineralized: approximately 3% pyrite.
6.1	10	FLOW	Qtz/sericite/pyrite zone (QSP). Disseminated pyrite and aggregates in altered flow +/- chalcopyrite. Joint planes lined with hematite between 6.10 to 6.52 metres. Local broken portions. Clay lined joint planes. Discontinuous qtz stringers between 4.50 to 4.62 metres associated with calcite locally.
10	11.58	FLOW BRECCIA	QSP zone. Slightly more chloritic than above. Slight brecciated texture between 10.00 and 10.56 metres. Qtz/calcite veining between 10.56 to 10.84 metres associated with pyrite aggregates and disseminations. Qtz/calcite veining between 11.00 and 11.06 metres.
11.58	16.74	ANDESITE FLOW	Qtz/calcite veining associated with hematite, lining joint planes locally. Patchy, weak yellow sericite alt'n. Weak, patchy epidote alt'n.
16.74	28	FLOW	Local mottled texture. Qtz/calcite veining associated with disseminated pyrite and aggregates. QSP zone: weak to moderate silicification and sericitization. Pyrite aggregates also in altered flow.
28	36.27	ANDESITE FLOW	Pyrite stringers with dark green chloritic stringers between 28.10 to 28.25 metres @ 70 degrees t.c.a. Broken. Epidote alt'n @ ~ 29.00 to 29.15 metres and between 29.31 to 29.56 metres. Locally mottled texture. More chlorite. Patchy, weak sericite alt'n.
36.27	38.42	ANDESITE FLOW BRECCIA	Brecciated locally. Increase in disseminated pyrite and aggregates. Weak to moderate patchy epidote alt'n between 37.04 to 37.14 metres. Weak to moderate sericite alt'n, weakly chloritic. Disseminated pyrite and aggregates.

Hole Number:

**KN-02-51**

From (m)	To (m)	Rock Type	Comments
38.42	39.98	BLADED FELDSPAR PORPHYRY FLOW	Weak, patchy epidote alt'n. Pyrite aggregates up to 15% locally. Bladed feldspar phenocrysts, light green/gray in medium green mafic matrix. Local increases in qtz/calcite veining @ ~ 40 degrees t.c.a.
39.98	42.17	ANDESITE FLOW	Moderate to strong sericite alt'n, weak, mottled texture visible. Epidote alt'n confined to qtz veining. Mod to strongly silicified, weakly chloritic. QSP zone unit. Qtz vein between 41.73 to 41.82 metres associated with epidote alt'n. Mottled texture between 41.82 to 42.06 metres.
42.17	44.96	BLADED FELDSPAR PORPHYRY FLOW	Broken zone. Bladed feldspar porphyry in highly chloritic matrix. Bladed feldspars replaced by epidote alt'n. Qtz/epi veining. Massive pyrite aggregates in flow.
44.96	46.93	ANDESITE FLOW	Brecciated, chlorite mottled portions. Disseminated pyrite and aggregates. Weak epidote alt'n. Qtz/cal vein between 46.23 to 46.51 metres associated with pyrite and k-spar aggregates.
46.93	54.03	ANDESITE FLOW BRECCIA	Amygdules infilled with qtz, concentric, indicating possibly several series of qtz infill between 48.00 to 48.10 metres. Brecciated locally, and mottled. Weak sericite alt'n. Qtz/zeo vein @ 47.30 metres. Weak, patchy epidote alt'n.
54.03	57.14	ANDESITE FLOW	Weak potassic alt'n between 54.20 to 54.34 metres. Chloritic. Qtz/py between 54.64 to 54.84 metres. Generally massive.
57.14	60.86	ANDESITE FLOW BRECCIA	Weak to moderate patchy epidote alt'n between 58.49 to 58.58 metres. Pyrite aggregates. Chloritic. Weakly brecciated. Locally broken.
60.86	64	ANDESITE FLOW	Local increase in disseminated pyrite and aggregates between 60.86 to 61.43 metres associated with qtz/calcite veining. Chloritic between 61.43 to 62.00 metres.
64	65.3	BASALT FLOW	Chloritic, with augite phenocrysts- possibly a mafic flow (basalt). Weak, patchy epidote alt'n also confined to veining. Qtz/calcite veining. Local broken zones. Disseminated pyrite and aggregates.
65.3	69.37	ANDESITE FLOW	Weak, patchy epidote. Decreased chlorite. Qtz/zeo veining. Local increase in qtz/calcite veining, randomly oriented. Fault zone between 67.51 to 68.00 metres lined by gouge and clay material. Chloritic flow from 68.00 metres- mafic, basalt. Disseminated pyrite and aggregates. Qtz/calcite veining. Rare hematite veining @ 68.80 metres. Minor core loss.
69.37	75	BASALT FLOW	Weak silicification. Augite phenocrysts in mafic flow- basalt. Disseminated pyrite and aggregates. Qtz/cal veining associated with pyrite stringers. Broken.

Hole Number: **KN-02-51**

From (m)	To (m)	Rock Type	Comments
75	77.1	BASALT FLOW BRECCIA	Medium green, chloritic between 75.00 to 75.65 metres. Increase in qtz/calcite veining between 75.65 to 77.10 metres. Weak epidote alt'n @ ~ 76.20 to 76.30 metres.
77.1	89	BASALT FLOW	Chloritic, silicified. Qtz/hematite/calcite veining associated with weak to moderate, patchy epidote alt'n. Disseminated pyrite and aggregates. Crackle breccia from 78.00 to 78.64 metres with qtz/calcite veining in between fragments.
89	93	BASALT FLOW BRECCIA	Locally broken, fault zone infilled with gouge/clay material. Increase in qtz vein between 90.10 to 91.05 metres. Discontinuous qtz/cal veining between 89.13 to 89.63 metres.
93	100.16	BASALT FLOW	Discontinuous qtz/calcite veining, locally associated with zeolite veining and hematite. Pyrite aggregates and disseminations. Fault zone lined with gouge/clay material.
100.16	104	BASALT FLOW BRECCIA	Breccia. Slight brown colour due to weak, patchy sericite +/- fine biotite alt'n. Fault lined with gouge and clay material. Weak, patchy epidote alt'n. Disseminated pyrite and pyrite aggregates. Qtz/zeo veining rare.
104	106	BASALT FLOW	Qtz/mag vein between 104.11 to 105.04 metres. Moderate epidote alt'n. Disseminated pyrite and aggregates. Hematite lining joint planes. Zeolite veining.
106	112	BASALT FLOW BRECCIA	Increased pyrite content. Brecciated. Moderate epidote alt'n. Local increase in zeolite veining. Brown colour due to sericite +/- fine biotite alt'n plus weak potassic alt'n, localized.
112	144	BASALT FLOW	Chloritic. Brown, patchy portions due to weak sericite +/- fine biotite alt'n. Qtz/calcite between 113.06 to 113.80 metres. Qtz vein with moly between 112.40 to 112.53 metres.
144	145.95	BASALT FLOW BRECCIA	Potassic, silicified, brecciated. Disseminated pyrite, aggregates and stringers. Qtz/zeo and qtz veining. Weak, localized epidote alt'n associated with pyrite.
145.95	158	BASALT FLOW	Brown colour due to weak sericite +/- fine biotite alt'n. Weak epidote alt'n. Disseminated pyrite and aggregates. Qtz/calcite veining. Weak, patchy potassic alt'n. Pyrite and magnetite disseminated aggregates. Qtz vein between 147.18 to 147.31 metres.
158	168	BASALT FLOW BRECCIA	Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates. Weak, patchy potassic alt'n associated with hematite veining. Brecciated.

Hole Number: **KN-02-51**

From (m)	To (m)	Rock Type	Comments
168	191.74	BASALT FLOW	Brecciated locally. Light green from 168.00 to 168.71 metres, possibly intermediate andesitic flow. Mafic, dark green from 168.71, associated with moderate epidote alt'n in stringer form and pervasive locally. associated with magnetite aggregates from 168.82 to 169.51 metres. Augite phenocrysts from 169.51 to 170.00 metres. Qtz/zeo veining between 169.70 to 169.76 metres. Decrease in pyrite content in andesite, increase in pyrite content in mafic basalt flow.
191.74	194	BASALT FLOW BRECCIA	Moderate localized epidote alt'n. Qtz/zeo/cal veining between 191.74 to 192.40 metres. Crackle breccia associated with veining. Brown colour due to weak sericite +/- fine biotite alt'n. Qtz/zeo veining. Local potassic alt'n. Pyrite aggregates.
194	200	BASALT FLOW	Fault plane lined with hem/qtz/calcite. Flow is weakly epidotized with pyrite aggregates. Pyrite vein between 195.25 to 195.29 metres. Qtz/zeo.
200	208	BASALT FLOW BRECCIA	Medium green, fine grained. Weak patchy epidote alt'n. Brecciated locally. Qtz/calcite veining associated with zeolite locally. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates also associated with veining.
208	210	BASALT FLOW	Magnetite stringers. Brown colour due to weak sericite +/- fine biotite alt'n. Pyrite aggregates, stringers, disseminations associated with magnetite aggregates locally. Qtz/zeo veining. Moderate sericite and potassic alt'n between 209.68 to 210.00 metres.
210	212	BASALT FLOW BRECCIA	Sericitic/potassic altered portions between 210.19 to 210.32 metres. Magnetite stringers. Brown colour due to weak sericite +/- fine biotite alt'n. Moderately silicified. Magnetite stringers. Brecciated. Weak, localized epidote alt'n.
212	214	BASALT FLOW	Magnetite vein between 212.06 to 212. 23 metres. Qtz/zeolite. Pyrite aggregates and disseminations. Chloritic. Patchy brown colour due to weak to moderate sericite +/- fine biotite alt'n. Hematite lining joints. Silicified light gray portion. Weak epidote alt'n in stringer form. Calcite associated with qtz veining.
214	216	BASALT FLOW BRECCIA	Medium brown colour due to weak to moderate sericite +/- fine biotite alt'n. Slight brecciated texture. Pyrite aggregates and disseminations in flow. Qtz/zeo veining associated with minor pyrite. Calcite associated with qtz/zeolite.
216	224	BASALT FLOW	Mod epidote alt'n between 216.42 to 216.59 metres. Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregate pyrite. Pyrite/qtz vein.

Hole Number:

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From (m)	To (m)	Rock Type	Comments
224	225.86	BASALT FLOW BRECCIA	Brown colour due to moderate sericite +/- fine biotite alt'n. Magnetite and pyrite aggregates and veining. Augite phenocrysts visible in places. Weak, patchy potassic alt'n @ 224.72 and between 225.55 to 225.70 metres. Weak epidote alt'n. Chlorite. Disseminated pyrite and aggregates.
225.86	237	BASALT FLOW	Moderate epidote alteration. Less chloritic, light to medium green. Qtz/mag veining associated with pyrite locally. Augite phenocrysts. Chalcopyrite and pyrite aggregates @ ~ 226.67 metres. Magnetite veining associated with epidote and qtz veining. Disseminated pyrite.
237	241	BASALT FLOW BRECCIA	Chloritic, weak to moderate epidote alt'n. Weak, patchy potassic alt'n between 237.75 to 238.00 metres. Locally brecciated, associated with potassic alt'n.
241	242.42	BASALT FLOW	Qtz vein between associated with epidote and minor moly. Chlorite augite phenos locally visible. Brown patchy colour due to weak sericite +/- fine biotite. Disseminated pyrite aggregates, rare qtz ksp vein at about 242.15m.
242.42	244.38	BASALT FLOW BRECCIA	Brecciated pink brown staining possibly weak potassic alteration. Augite phenos present in breccia. Local quartz veining. Broken portions associated with weak epidote alteration about 242.8-242.93m. Diss py throughout.
244.38	246.06	BASALT FLOW	Qtz-zeo vein from 244.5 to 244.65m. Associated with pyrite aggregates with local veins at 244.65-244.68m. Weak epidote alteration with broken zones. 5cm py-qtz vein @ 244.9m. Augite phenos present.
246.06	250	BASALT FLOW BRECCIA	245.06-246.22: local increase in epidote alteration. Patch brown colour due to weak sericite-biotite alteration. 246.69m and 247m- 10cm silicified sections.
250	254.87	BASALT FLOW	250.13m - hematite veinlet with local quartz.
254.87	260	BASALT FLOW BRECCIA	255.87-256.05; vuggy section.
260	302	BASALT FLOW	Plag-augite phyric section.
302	306	BASALT FLOW BRECCIA	Augite phyric section still present.
306	331.37	BASALT FLOW	
331.37	341.07	BASALT FLOW BRECCIA	

Hole Number:

**KN-02-51**

From (m)	To (m)	Rock Type	Comments
341.07	345.02	BASALT FLOW	342.48 - 343.03m; py-cpy aggregates and stringers. Unit remains augite phyrlic.
345.02	350.53	GRANITOID	Phaneritic quartz-felspar bearing granitoid crosscut by Qtz-zeolite veinlets.
350.53	437	BASALT FLOW	Amygdular unit; mt-Qtz stringers randomly oriented.
437	445	BASALT FLOW BRECCIA	
445	476.1	BASALT FLOW	
476.1	478	BASALT FLOW BRECCIA	Qtz-zeo veinlets 476.62 - 477.19m. Broken section at 477.19m.
478	538	BASALT FLOW	
538	540	BASALT FLOW BRECCIA	
540	551	BASALT FLOW	Massive mt units. Augite phyrlic units continue.
551	562	BASALT FLOW BRECCIA	Fault brecciated section.
562	568	BASALT FLOW	Desseminated py-cpy at 562.72m.
568	569.89	BASALT FLOW BRECCIA	Brecciated pyrite aggregates.
569.89	574	BASALT FLOW	Desseminated py-cpy at 571.38.
574	578	BASALT FLOW BRECCIA	
578	668.12	BASALT FLOW	

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	2.13	<b>CASING</b>							
0.00	2.13						51	-2	-2
2.13	3.66	<b>BASALT FLOW</b>							
2.13	3.66	Fine-medium-grained green chloritic silicic		2	QZHV	Rubble. Broken. Joint planes lined by red/black hematite, oxidized. Rare qtz/zeo also lining joints. Chloritic, weak to moderately silicified with patchy epidote alt'n. Poor core recovery.	115626	0.007	0.009
3.66	6.1	<b>ANDESITE FLOW</b>							
3.66	6.10	Fine-medium-grained green-grey chloritic silicic	3.0	0	QZHV 90	Rubble from ~ 3.66 to 4.00 metres. Chloritic, joints lined with hematite. Andesitic gray/green flow from 4.00 to 6.10 metres- mineralized: approximately 3% pyrite.	115627	0.003	0.017
6.1	10	<b>FLOW</b>							
6.10	8.00	Fine-medium-grained light grey silicic sericitic	5.0	0.0	0 QCVN 80 7	Qtz/sericite/pyrite zone (QSP). Disseminated pyrite and aggregates in altered flow +/- chalcopyrite. Joint planes lined with hematite between 6.10 to 6.52 metres. Local broken portions. Clay lined joint planes. Discontinuous qtz stringers between 4.50 to 4.62 metres associated with calcite locally.	115628	0.002	0.038
8.00	10.00		5.0		0 QCVN 0 5	QSP zone. Disseminated pyrite and aggregates in altered flow. Patchy, yellow sericite colouration. Rare qtz/zeo veining between 8.50 to 9.00 metres, and broken. Also broken between 9.10 to 10.00 metres.	115629	0.002	0.02
10	11.58	<b>FLOW BRECCIA</b>							
10.00	11.58	Fine-medium-grained green silicic chloritic	5.0		0 QZCN 0 10	QSP zone. Slightly more chloritic than above. Slight brecciated texture between 10.00 and 10.56 metres. Qtz/calcite veining between 10.56 to 10.84 metres associated with pyrite aggregates and disseminations. Qtz/calcite veining between 11.00 and 11.06 metres.	115630	0.004	0.038
11.58	16.74	<b>ANDESITE FLOW</b>							
11.58	12.29	Fine-medium-grained green chloritic silicic	4.0		0 QZHCV 90 10	Qtz/calcite veining associated with hematite, lining joint planes locally. Patchy, weak yellow sericite alt'n. Weak, patchy epidote alt'n.	115631	0.002	0.029



**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
12.29	14.00	Fine-medium-grained medium green chloritic silicic	6.0	0	QZCV 0 7	Red iron/calcite veining between 12.58 to 12.67 metres. Local broken zones. Joint planes lined with pyrite aggregates. Weak, patchy sericite alt'n.	115632	0.037	0.092
14.00	15.68	Fine-medium-grained medium green mottled chloritic silicic	7.0	0	QCVN 70 10	Local brecciated portions. Patchy sericite +/- fine biotite alt'n. Local increase in pyrite aggregates and disseminations. Qtz/calcite veining associated with disseminated pyrite and possibly chalcopyrite. Local mottled texture.	115633	0.021	0.1
15.68	16.74		10.0	0	QCZV 80 10	Pyrite as aggregates and disseminations in flow; associated with qtz/calcite veining with rare zeolite locally. Patchy, weak sericite-altered portions.	115634	0.012	0.334
16.74	28	<b>FLOW</b>							
16.74	18.00	Fine-medium-grained light grey silicic sericitic	7.0	0	QCVN 5 7	Local mottled texture. Qtz/calcite veining associated with disseminated pyrite and aggregates. QSP zone: weak to moderate silicification and sericitization. Pyrite aggregates also in altered flow.	115635	0.007	0.069
18.00	20.00		10.0	0	QCVN 70 7	Local mottled texture and QSP zone. Pyrite aggregates and disseminations in qtz/calcite veining and in flow. Fault plane @ ~ 70 degrees t.c.a. at 18.28 metres lined with gouge, clay and pyrite. Mottled between 18.41 to 18.87 metres.	115636	0.002	0.048
20.00	22.00		15.0	0	QCVN 60 7	Increased finely disseminated pyrite in flow and qtz/calcite discontinuous stringers (post-mineralization, barren). QSP zone.	115637	0.003	0.045
22.00	24.00	Fine-medium-grained grey-green silicic sericitic	10.0	0	QCVN 70 7	Weak, localized, mottled texture. QSP zone between 22.00 to 22.77 metres, with high disseminated pyrite. More chloritic between 22.77 to 24.00 associated with decreased pyrite content (mainly present as aggregates in flow and qtz/cal veining). Locally mottled and broken. Weak, patchy epidote alt'n.	115638	0.033	0.297
24.00	26.04	Fine-medium-grained light grey silicic sericitic	7.0	0	QCVN 50 7	QSP zone, disseminated pyrite and aggregates in flow and in qtz/cal veining. Locally mottled and broken. Weak, patchy epidote alt'n.	115639	0.016	0.069
26.04	28.00	Fine-medium-grained light brown grey silicic sericitic	5.0	0	0 QCVN 70 10	Increased secondary silicification. Qtz/epi veining @ ~ 26.64 metres. Pyrite stringers bound with chlorite at about 70 degrees t.c.a. between 27.66 to 28.00 metres. Possibly rare chalcopyrite associated with pyrite aggregates in qtz/cal vein. Less disseminated pyrite in flow. QSP zone.	115640	0.028	0.081

**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
28	36.27	<b>ANDESITE FLOW</b>							
28.00	29.93	Fine-medium-grained medium green chloritic silicic	5.0	0	QCVN 70 10	Pyrite stringers with dark green chloritic stringers between 28.10 to 28.25 metres @ 70 degrees t.c.a. Broken. Epidote alt'n @ ~ 29.00 to 29.15 metres and between 29.31 to 29.56 metres. Locally mottled texture. More chlorite. Patchy, weak sericite alt'n.	115641	0.029	0.086
29.93	31.96	Fine-medium-grained medium green mottled chloritic silicic	6.0	0	QCVN 70 7	Patchy weak to moderate epidote alt'n between 29.93 to 30.53 metres. Weakly to moderately silicified and chloritic- mottled. QSP zone between 31.38 to 31.96 metres with moderate sericite alt'n and an increase in disseminated pyrite.	115642	0.01	0.051
31.96	33.00	Fine-medium-grained light green mottled chloritic silicic	10.0	0	QCVN 80 7	Local mottled texture. Disseminated pyrite and aggregates. Qtz/calcite veining. Intermediate flow, andesite. Local increase in disseminated pyrite.	115643	0.007	0.065
33.00	35.00		10.0	0	QCVN 40 7	Weak, patchy epidote alt'n confined to veining in places. Mottled chloritic texture associated with pyrite aggregates, mineralization; also associated with qtz/calcite veining. Chlorite content varies from weak to moderate locally. Local broken zones. Weak sericite alt'n in less chloritic portions.	115644	0.029	0.092
35.00	36.27		6.0	0	QZCV 70 7	Qtz/zeo veining. Weak epidote alt'n and varying chlorite content. Mottled. Disseminated pyrite and aggregates. Amygduloidal structures infilled with chlorite. Weak sericite alt'n in less chloritic portions.	115645	0.018	0.06
36.27	38.42	<b>ANDESITE FLOW BRECCIA</b>							
36.27	37.05	Fine-medium-grained light green sericitic silicic	7.0	0	QCVN 90 5	Brecciated locally. Increase in disseminated pyrite and aggregates. Weak to moderate patchy epidote alt'n between 37.04 to 37.14 metres. Weak to moderate sericite alt'n, weakly chloritic. Disseminated pyrite and aggregates.	115646	0.02	0.191
37.05	38.42	Fine-medium-grained green brown sericitic silicic	10.0	0	QCVN 30 5	Chlorite/sericite, light green between 37.91 to 38.00 metres. Brown coloured portions possibly due to sericite +/- fine biotite alt'n. Brecciated. Pyrite aggregates and disseminated pyrite. Qtz/calcite vein between 38.31 to 38.42 metres.	115647	0.025	0.076
38.42	39.98	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							

**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
38.42	39.98	Fine-medium-grained medium green chloritic silicic	10.0	0	QCVN 50 7	Weak, patchy epidote alt'n. Pyrite aggregates up to 15% locally. Bladed feldspar phenocrysts, light green/gray in medium green mafic matrix. Local increases in qtz/calcite veining @ ~ 40 degrees t.c.a.	115648	0.024	0.109
<b>39.98</b>	<b>42.17</b>	<b>ANDESITE FLOW</b>							
39.98	42.17	Fine-medium-grained light brown sericitic silicic	10.0	0	QCVN 40 10	Moderate to strong sericite alt'n, weak, mottled texture visible. Epidote alt'n confined to qtz veining. Mod to strongly silicified, weakly chloritic. QSP zone unit. Qtz vein between 41.73 to 41.82 metres associated with epidote alt'n. Mottled texture between 41.82 to 42.06 metres.	115649	0.006	0.053
<b>42.17</b>	<b>44.96</b>	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
42.17	44.96	Fine-medium-grained dark green chloritic	10.0	10	QCVN 5 7	Broken zone. Bladed feldspar porphyry in highly chloritic matrix. Bladed feldspars replaced by epidote alt'n. Qtz/epi veining. Massive pyrite aggregates in flow.	115650	0.014	0.043
<b>44.96</b>	<b>46.93</b>	<b>ANDESITE FLOW</b>							
44.96	46.93	Fine-medium-grained medium green chloritic silicic	7.0	0	QCVN 90 5	Brecciated, chlorite mottled portions. Disseminated pyrite and aggregates. Weak epidote alt'n. Qtz/cal vein between 46.23 to 46.51 metres associated with pyrite and k-spar aggregates.	115652	0.018	0.111
<b>46.93</b>	<b>54.03</b>	<b>ANDESITE FLOW BRECCIA</b>							
46.93	49.00	Fine-medium-grained medium green chloritic silicic	10.0	0	QZCVN 70 5	Amygdules infilled with qtz, concentric, indicating possibly several series of qtz infill between 48.00 to 48.10 metres. Brecciated locally, and mottled. Weak sericite alt'n. Qtz/zeo vein @ 47.30 metres. Weak, patchy epidote alt'n.	115653	0.014	0.037
49.00	50.86		7.0	0	QZCV 20 5	Brecciated texture locally. Disseminated pyrite and aggregates. Weak, patchy epidote alt'n. Locally mottled between 50.25 to 50.45 metres. Weak to moderate potassic alt'n. Weak to moderate epidote alt'n. Local increase in pyrite between 49.88 to 50.01 metres.	115654	0.015	0.076
50.86	52.41	Fine-medium-grained medium green chloritic	7.0	1	QCVN 90 5	Weak epidote alt'n, locally moderate. Pyrite aggregates and disseminations. Epidote and potassic alt'n between 51.90 to 52.00 metres. Massive between 50.86 to 51.27 metres. Mottled texture locally.	115655	0.011	0.051

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
52.41	54.03	Fine-medium-grained medium green chloritic silicic	5.0	1	QCVN 60 5	Weak to moderate epidote alt'n between 53.66 to 53.73 metres. Disseminated pyrite and aggregates. Brecciated and mottled.	115656	0.013	0.055
<b>54.03</b>	<b>57.14</b>	<b>ANDESITE FLOW</b>							
54.03	55.85	Fine-medium-grained light green chloritic silicic	5.0	0	QCVN 70 7	Weak potassic alt'n between 54.20 to 54.34 metres. Chloritic. Qtz/py between 54.64 to 54.84 metres. Generally massive.	115657	0.013	0.115
55.85	57.14	Fine-medium-grained medium green chloritic silicic	7.0	0	QCVN 0 3	Weak, patchy epidote alt'n. Disseminated pyrite and aggregates. Moderate to strong chlorite.	115658	0.023	0.109
<b>57.14</b>	<b>60.86</b>	<b>ANDESITE FLOW BRECCIA</b>							
57.14	59.00	Fine-medium-grained medium green chloritic silicic	7.0	0	QCVN 70 5	Weak to moderate patchy epidote alt'n between 58.49 to 58.58 metres. Pyrite aggregates. Chloritic. Weakly brecciated. Locally broken.	115659	0.018	0.088
59.00	60.86		4.0	0	QCVN 80 10	Qtz/zeo/calcite veining between 59.00 to 59.30 metres associated with epidote locally. Chloritic portions. Slightly brecciated. Disseminated pyrite and aggregates.	115660	0.016	0.07
<b>60.86</b>	<b>64</b>	<b>ANDESITE FLOW</b>							
60.86	62.00	Fine-medium-grained light green chloritic silicic	6.0	0	QCVN 0 10	Local increase in disseminated pyrite and aggregates between 60.86 to 61.43 metres associated with Qtz/calcite veining. Chloritic between 61.43 to 62.00 metres.	115661	0.021	0.143
62.00	64.00		3.0	0	QCVN 30 20	Weak to moderate patchy epidote alt'n. Chloritic portions. Epidote veining associated with pyrite veining locally increasing. Patchy, faint brown colour possibly due to weak sericite +/- fine biotite alt'n. Qtz/zeo/calcite veining. Qtz/chl vein @ ~ 63.09 metres.	115662	0.043	0.066
<b>64</b>	<b>65.3</b>	<b>BASALT FLOW</b>							
64.00	65.30	Fine-medium-grained medium green chloritic silicic	4.0	0	QCVN 90 5	Chloritic, with augite phenocrysts- possibly a mafic flow (basalt). Weak, patchy epidote alt'n also confined to veining. Qtz/calcite veining. Local broken zones. Disseminated pyrite and aggregates.	115663	0.015	0.034
<b>65.3</b>	<b>69.37</b>	<b>ANDESITE FLOW</b>							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
65.30	67.00	Fine-medium-grained light green chloritic silicic	3.0	0	QCVN 80 30	Weak, patchy epidote. Decreased chlorite. Qtz/zeo veining. Local increase in qtz/calcite veining, randomly oriented. Fault zone between 67.51 to 68.00 metres lined by gouge and clay material. Chloritic flow from 68.00 metres- mafic, basalt. Disseminated pyrite and aggregates. Qtz/calcite veining. Rare hematite veining @ 68.80 metres. Minor core loss.	115664	0.02	0.051
67.00	69.37		2.0	0	QCVN 30 30	Weak, patchy epidote @ 65.85 to 65.93 metres. Decreased chlorite. Qtz/zeo veining. Local increase in qtz/calcite veining, randomly oriented. Disseminated pyrite and aggregates.	115665	0.019	0.046
<b>69.37</b>	<b>75</b>	<b>BASALT FLOW</b>							
69.37	71.00	Fine-medium-grained light green chloritic epidote	3.0	0	QCVN 60 10	Weak silicification. Augite phenocrysts in mafic flow-basalt. Disseminated pyrite and aggregates. Qtz/cal veining associated with pyrite stringers. Broken.	115666	0.037	0.086
71.00	72.26		3.0	0	QCVN 30 5	Moderate epidote alt'n between 71.52 to 71.78 metres. Augite phenocrysts in light green flow- intermediate/mafic basalt. Qtz/zeo/calcite veining.	115667	0.01	0.03
72.26	73.23	Fine-medium-grained light grey chloritic silicic	6.0	0	QCVN 0 7	Weak sericite alt'n, weakly brecciated. Broken zone. Disseminated pyrite and aggregates. Light gray/yellow colour. Qtz/calcite veining. Possibly QSP zone unit.	115668	0.013	0.089
73.23	75.00	Fine-medium-grained light brown chloritic silicic	5.0	1	QCVN 0 5	Chloritic, silicified. Disseminated pyrite and aggregates associated locally with qtz/calcite veining. Brecciated locally.	115669	0.009	0.032
<b>75</b>	<b>77.1</b>	<b>BASALT FLOW BRECCIA</b>							
75.00	77.10	Fine-medium-grained light brown chloritic silicic	3.0	0	QCVN 90 20	Medium green, chloritic between 75.00 to 75.65 metres. Increase in qtz/calcite veining between 75.65 to 77.10 metres. Weak epidote alt'n @ ~ 76.20 to 76.30 metres.	115670	0.01	0.033
<b>77.1</b>	<b>89</b>	<b>BASALT FLOW</b>							
77.10	79.05	Fine-medium-grained medium green chloritic epidote	1.0	0	QCVN 0 30	Chloritic, silicified. Qtz/hematite/calcite veining associated with weak to moderate, patchy epidote alt'n. Disseminated pyrite and aggregates. Crackle breccia from 78.00 to 78.64 metres with qtz/calcite veining in between fragments.	115671	0.01	0.038
79.05	81.00		5.0	0	QZHCV 70 15	Increased epidote alt'n between 80.00 to 80.21 metres. Local broken portions. Chloritic. Qtz/calcite/hematite veining. Rare zeo/qtz veining. Disseminated pyrite and aggregates, locally associated with veining.	115672	0.009	0.041

## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
81.00	83.00	Fine-medium-grained medium green chloritic silicic	1.0	0	QHCV 0 60	Qtz/cal veining between 82.13 to 82.73 metres. Weak, patchy epidote alt'n. Qtz/hematite veining. Disseminated pyrite and aggregates. Increased hematite veining between 82.75 to 82.95 metres.	115673	0.02	0.03
83.00	85.00		4.0	0	QHCV 5 20	Local increase in qtz/cal veining and hematite veining between 83.05 to 83.74 metres. Discontinuous qtz/cal veining between 84.50 to 85.00 metres. Disseminated pyrite and aggregates with veining and in flow.	115674	0.017	0.031
85.00	87.00		7.0	0	QHCV 80 15	Light green intermediate andesitic flow from 85.00 to 86.16 metres. Disseminated pyrite and aggregates. Qtz/zeo veining between 85.37 to 85.49 metres and between 85.99 to 86.16 metres. Pyrite also associated with qtz veining between 86.23 to 86.77 metres. Qtz/calcite veining @ ~ 86.80 metres with red hematite specks.	115675	0.016	0.052
87.00	89.00		4.0	0	QHCV 0 15	Broken, weak, patchy epidote alt'n. Local increase in qtz/cal/hem veining between 88.14 to 88.66 metres. Clay gouge material infilling fault plane. Disseminated pyrite and aggregates.	115676	0.015	0.05
89	93	<b>BASALT FLOW BRECCIA</b>							
89.00	91.05	Fine-medium-grained medium green chloritic silicic	3.0	0	QHCV 30 15	Locally broken, fault zone infilled with gouge/clay material. Increase in qtz vein between 90.10 to 91.05 metres. Discontinuous qtz/cal veining between 89.13 to 89.63 metres.	115678	0.01	0.026
91.05	93.00		3.0	0	QHCV 80 15	Brecciated, broken, faulted, locally competent. Qtz/hematite veining between 91.05 to 91.54 metres. Pyrite aggregates visible locally. Rare qtz zeolite veinlets. Weak, patchy epidote alt'n.	115679	0.02	0.036
93	100.16	<b>BASALT FLOW</b>							
93.00	94.84	Fine-medium-grained medium green chloritic silicic	5.0	0	QHCV 80 20	Discontinuous qtz/calcite veining, locally associated with zeolite veining and hematite. Pyrite aggregates and disseminations. Fault zone lined with gouge/clay material.	115680	0.058	0.07
94.84	96.67	Fine-medium-grained light green chloritic silicic	3.0	0	QHCV 70 20	Light green/yellow sericite alt'n. Qtz/cal veining locally associated with pyrite aggregates. Rare pyrite aggregates in flow. Hematite vein between 96.57 to 96.67 metres in dark green chloritic flow.	115681	0.021	0.055

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
96.67	98.73	Fine-medium-grained medium green chloritic silicic	2.0	0	ZHCV 90 20	High qtz/cal veining associated with zeolite between 97.16 to 97.25 metres. Weak, patchy epidote alt'n associated with weak, patchy potassic alt'n @ ~ 98.00 metres. Rare pyrite.	115682	0.019	0.054
98.73	100.16	Fine-medium-grained medium green chloritic epidote	4.0	0	QZCV 0 20	Moderate, patchy epidote alt'n between 99.79 to 100.14 metres. Qtz/zeo/calcite veining and stringers; Pyrite disseminated and in flow.	115683	0.022	0.049
100.16	104	<b>BASALT FLOW BRECCIA</b>							
100.16	102.00	Fine-medium-grained green brown chloritic sericitic	5.0	2	QZCV 90 15	Breccia. Slight brown colour due to weak, patchy sericite +/- fine biotite alt'n. Fault lined with gouge and clay material. Weak, patchy epidote alt'n. Disseminated pyrite and pyrite aggregates. Qtz/zeo veining rare.	115684	0.051	0.095
102.00	104.00	Fine-medium-grained medium green chloritic silicic	7.0	0	QZCV 80 15	Weak to moderate epidote alt'n, patchy, associated with pyrite aggregates in places. Fault planes infilled with gouge and clay material. Brown coloured portions-probably weak sericite +/- fine biotite alt'n. Brecciated locally. Pyrite aggregates in flow and fragments.	115685	0.051	0.101
104	106	<b>BASALT FLOW</b>							
104.00	106.00	Fine-medium-grained medium green chloritic epidote	7.0	1	QZCV 0 50	Qtz/mag vein between 104.11 to 105.04 metres. Moderate epidote alt'n. Disseminated pyrite and aggregates. Hematite lining joint planes. Zeolite veining.	115686	0.059	0.192
106	112	<b>BASALT FLOW BRECCIA</b>							
106.00	108.00	Fine-medium-grained green brown chloritic epidote	10.0	6	ZVN 80 5	Increased pyrite content. Brecciated. Moderate epidote alt'n. Local increase in zeolite veining. Brown colour due to sericite +/- fine biotite alt'n plus weak potassic alt'n, localized.	115687	0.157	0.467
108.00	110.00	Fine-medium-grained green-grey chloritic sericitic	5.0	0	QZVN 60 3	Brecciated, chloritic, with disseminated pyrite and weak epidote alt'n. Yellow gray portion possibly weak sericite alt'n. Disseminated pyrite associated with magnetite aggregates.	115688	0.155	0.508
110.00	112.00		5.0	0	QZVN 0 15	Epidote alt'n, weak to moderate, associated with qtz veining and magnetite aggregates. Brown portions, possibly weak sericite +/- fine biotite alt'n. Breccia features. Disseminated pyrite and pyrite aggregates. Qtz/zeolite veining.	115689	0.057	0.168
112	144	<b>BASALT FLOW</b>							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
112.00	114.00	Fine-medium-grained green brown chloritic silicic	7.0	1	QCMDV 0 15	Chloritic. Brown, patchy portions due to weak sericite +/- fine biotite alt'n. Qtz/calcite between 113.06 to 113.80 metres. Qtz vein with moly between 112.40 to 112.53 metres.	115690	0.06	0.27
114.00	116.00		7.0	2	QZCV 0 7	Weak, patchy epidote alt'n. Qtz/zeo/calcite veining. Broken zones. Brown portions due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates.	115691	0.058	0.272
116.00	118.00		7.0	1	QZCV 60 7	Weak, patchy epidote alt'n. Qtz/zeo/calcite veining. Broken zones. Brown portions due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates-aggregates associated with qtz/calcite veining.	115692	0.059	0.253
118.00	120.00	Fine-medium-grained green brown chloritic sericitic	6.0	1	QZCV 0 15	Patchy brown colour due to weak sericite +/- fine biotite alt'n. Increased qtz/calcite veining between 118.60 to 118.77 metres. Pyrite aggregates and disseminated pyrite. Locally brecciated, weakly localized epidote alt'n. Qtz/zeolite veining.	115693	0.059	0.253
120.00	120.88		10.0	2	QZCV 30 7	Disseminated pyrite and aggregates, locally increased. Brown staining due to weak sericite +/- fine biotite alt'n. Very weak epidote alt'n.	115694	0.049	0.176
120.88	122.00		2.0	0	QZCV 0 30	Increased qtz/cal/zeo veining. Discontinuous qtz/cal stringers. Disseminated pyrite in flow. Pyrite aggregates in qtz/calcite veining.	115695	0.071	0.244
122.00	123.11	Fine-medium-grained green brown chloritic silicic	2.0	0	QZCV 5 30	Qtz/cal/zeo veining, locally associated with pyrite aggregates. Disseminated pyrite in flow. Slight brown colour due to weak sericite +/- fine biotite alt'n. Weak, patchy epidote alt'n.	115696	0.036	0.128
123.11	125.00		4.0	1	QZCV 70 5	Broken- fault zone between 123.11 to 124.00 metres. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Brecciated. Disseminated pyrite and aggregates. Qtz/cal/zeo veining.	115697	0.078	0.848
125.00	127.00		7.0	0	QZCV 5 7	Chloritic portion between 125.37 to 125.52 metres. Brecciated. Brown colour is sericite +/- fine biotite alt'n. Epidote alt'n associated with qtz/cal/zeo. Disseminated pyrite and aggregates.	115698	0.076	0.92
127.00	129.00		7.0	1	QZCV 5 7	Weak, patchy epidote alt'n. Finely disseminated pyrite. Brown colour due to weak sericite +/- fine biotite alt'n. Qtz/cal/zeo veining. Brecciated- fragments barely visible. Disseminated pyrite and aggregates in flow and in fragments.	115699	0.064	0.133



## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
129.00	131.00	Fine-medium-grained green brown chloritic silicic	6.0	1	QCVN 70 7	Brecciated- fragments barely visible. Disseminated pyrite and aggregates in flow and in fragments. Qtz/calcite veining. Disseminated pyrite and aggregates, also present as stringers. Brown colour as above. Sulphides also associated with qtz/calcite vein between 132.34 to 132.37 metres.	115700	0.048	0.122
131.00	132.97	Fine-medium-grained brown green chloritic sericitic	7.0	0	QKCV 80 7	Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Kfsp and weak sericite +/- biotite between 132.53 to 132.64 metres. Weak, patchy epidote alt'n between 132.75 to 132.97 metres. Disseminated pyrite and aggregates.	115701	0.048	0.126
132.97	135.00		10.0	0	QZCN 90 10	Brecciated between 133.36 to 133.64 metres. Qtz/zeo veining between 133.99 to 134.03 metres. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Qtz/calcite stringers between 134.37 to 135.00 metres. Weak to moderate epidote alt'n. Disseminated pyrite and aggregates in flow, associated with veining.	115702	0.082	0.37
135.00	137.00	Fine-medium-grained dark green chloritic silicic	5.0	3	2 QCVN 80 10	Chloritic, weak to moderate epidote alt'n, locally associated with qtz/calcite veining. Massive magnetite in flow, in places. Pyrite disseminated in flow, also present as aggregates. Locally brecciated. Rare hematite lining joints.	115704	0.072	0.28
137.00	139.00		7.0	2	4 QZCV 20 7	Weak, patchy epidote alt'n. Chloritic. Disseminated pyrite and pyrite aggregates and veining @ ~ 137.10 and 137.65 metres associated with calcite and magnetite. Disseminated pyrite and aggregates in dark green flow. Qtz/zeo between 139.40 to 139.51 metres in light green, intermediate flow (non-mineralized).	115705	0.073	0.31
139.00	140.82		3.0	2	14 QZCV 80 10	Local increase in zeolite veining between 139.32 to 139.81 metres. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Pyrite/mag veining, also disseminated in flow. Weak to moderate localized epidote alt'n from 139.81 to 140.22 metres. Increase in massive mag from 140.33 metres. Hematite lining joints.	115706	0.1	0.31
140.82	141.46	Fine-medium-grained light grey silicic sericitic	3.0	1	42 QCVN 40 5	Weak to moderate silicification and sericite. Weak potassic alt'n. Disseminated pyrite and aggregates. Qtz/calcite veining associated with pyrite locally. Local massive mag.	115707	0.059	0.208

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
141.46	142.46	Fine-medium-grained dark brown sericitic silicic	5.0	1	0 QVN 80 7	Brown colour due to weak sericite +/- fine biotite alt'n, patchy in places. Disseminated pyrite and stringers. Qtz vein associated with magnetite and pyrite locally.	115708	0.049	0.144
142.46	144.00	Fine-medium-grained brown green sericitic silicic	6.0		0 QVN 5 5	Weak potassic and epidote alt'n. Disseminated pyrite, aggregates and stringers. Local broken portions. Highly silicified between 142.96 to 143.17 metres. Brown colour due to weak sericite +/- fine biotite alt'n associated with an increase in pyrite percentage.	115709	0.037	0.145
144	145.95	<b>BASALT FLOW BRECCIA</b>							
144.00	145.95	Fine-medium-grained brown green sericitic potassic	7.0		0 QVN 70 7	Potassic, silicified, brecciated. Disseminated pyrite, aggregates and stringers. Qtz/zeo and qtz veining. Weak, localized epidote alt'n associated with pyrite.	115710	0.067	0.294
145.95	158	<b>BASALT FLOW</b>							
145.95	148.26	Fine-medium-grained green brown chloritic sericitic	10.0	2	0 QZVN 70 10	Brown colour due to weak sericite +/- fine biotite alt'n. Weak epidote alt'n. Disseminated pyrite and aggregates. Qtz/calcite veining. Weak, patchy potassic alt'n. Pyrite and magnetite disseminated aggregates. Qtz vein between 147.18 to 147.31 metres.	115711	0.046	0.17
148.26	150.00	Fine-medium-grained brown green chloritic sericitic	5.0	1	QZVN 0 7	Brown colour due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Disseminated pyrite in flow. Pyrite aggregates also present in qtz/cal stringers. Local zeolite veining. Hematite lining joints locally.	115712	0.027	0.108
150.00	152.00		7.0		0 QZVN 50 10	Brown colour due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Disseminated pyrite in flow. Pyrite aggregates also present in qtz/cal stringers. Local zeolite veining. Hematite lining joints locally. Weak, patchy epidote alt'n associated with qtz vein and qtz/zeo veining.	115713	0.024	0.059
152.00	154.00	Fine-medium-grained green brown chloritic sericitic	7.0	5	26 QZVN 60 7	Massive magnetite units. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and pyrite aggregates. Weak, localized epidote alt'n. Rare zeolite veining.	115714	0.031	0.061
154.00	156.00	Fine-medium-grained light green chloritic epidote	10.0	3	QZVN 40 7	Augite phenocrysts. Disseminated pyrite and aggregates associated with magnetite aggregates locally. Brown colour due to weak sericite +/- fine biotite alt'n. Epidote alt'n in stringer form, also pervasive in flow.	115715	0.031	0.072

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
156.00	158.00	Fine-medium-grained brown green chloritic sericitic	7.0	7	QCHV 0 5	Weak, patchy epidote alt'n. Disseminated pyrite and aggregates. Magnetite stringer associated with qtz vein. Brown colour due to weak sericite +/- fine biotite alt'n. Pyrite stringers associated with qtz vein and epidote. Weak epidote alt'n and rare hematite stringers.	115716	0.024	0.053
158		168		<b>BASALT FLOW BRECCIA</b>					
158.00	160.00	Fine-medium-grained brown green chloritic sericitic	7.0	1	QZV 0 5	Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates. Weak, patchy potassic alt'n associated with hematite veining. Brecciated.	115717	0.095	0.12
160.00	162.00	Fine-medium-grained brown green sericitic chloritic	10.0	0	QVN 70 5	Weak potassic alt'n @ ~ 161.29 to 161.37 metres. Moderate silicification. Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates. Weak, patchy epidote alt'n.	115718	0.053	0.186
162.00	164.03		10.0	0	QZVN 20 7	Brown colour due to weak sericite +/- fine biotite alt'n. Local zeolite veining. Increased pyrite- disseminated and aggregate. Brecciated.	115719	0.031	0.099
164.03	166.00		7.0	25	QZVN 70 7	Augite phenocryst. Disseminated pyrite and aggregates. Fragmental, brecciated. Pyrite and magnetite aggregates. Qtz/zeo veining between 164.03 to 164.22 metres. Brown colour due to weak sericite +/- fine biotite alt'n. Weak, localized epidote alt'n. Light green intermediate andesitic flow. Pyrite aggregates locally associated with veining. Magnetite aggregates associated with zeolite vein in flow between 164.03 to 164.22 metres.	115720	0.036	0.115
166.00	168.00		10.0	0	QZVN 90 10	Brown colour due to weak sericite +/- fine biotite alt'n. Weak epidote alt'n associated with qtz veins. Qtz zeo veining. Disseminated and aggregate pyrite. Potassic alt'n @ ~ 167.79 metres. Augite phenocrysts visible locally in less sericitized portions.	115721	0.054	0.104
168		191.74		<b>BASALT FLOW</b>					

## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
168.00	170.00	Fine-medium-grained light green sericitic chloritic	2.0	5	6 QZVN 20 10	Brecciated locally. Light green from 168.00 to 168.71 metres, possibly intermediate andesitic flow. Mafic, dark green from 168.71, associated with moderate epidote alt'n in stringer form and pervasive locally. associated with magnetite aggregates from 168.82 to 169.51 metres. Augite phenocrysts from 169.51 to 170.00 metres. Qtz/zeo veining between 169.70 to 169.76 metres. Decrease in pyrite content in andesite, increase in pyrite content in mafic basalt flow.	115722	0.037	0.058
170.00	172.00	Fine-medium-grained medium green chloritic silicic	5.0	2	64 QZVN 60 10	Medium to dark green mafic flow, augite phenocrysts. Disseminated pyrite and aggregates. Weak to moderate patchy epidote alt'n. Py/mag/qtz veining @ 170.18 metres, associated with zeolite locally. Increased epidote alt'n between 171.79 to 171.95 metres associated with magnetite aggregates.	115723	0.03	0.049
172.00	173.90	Fine-medium-grained medium green chloritic epidote	7.0	1	4 QZVN 10 5	Augite phenocrysts in flow, chloritic. Weak to moderate epidote alt'n associated with qtz/calcite/hem veining between 172.88 to 173.05 metres. Disseminated pyrite. Qtz/zeo/epi/py vein between 173.50 to 173.74 metres. Light green, intermediate andesitic flow in places.	115724	0.016	0.027
173.90	176.00	Fine-medium-grained light green chloritic silicic	5.0	3	50 QZHVN 10 7	Augite phenocrysts in flow. Disseminated pyrite and aggregates associated with qtz veining. Qtz/zeo veining. Pyrite lining joint planes. Weak, patchy epidote alt'n. Massive magnetite present locally. Qtz/hematite veining @ ~ 174.73 metres associated with zeolite.	115725	0.024	0.042
176.00	178.00	Fine-medium-grained green brown chloritic silicic	7.0		2 QZHVN 90 10	Augite phenocrysts in medium green, mafic basaltic flow. Weak, patchy epidote alt'n associated with qtz veining locally. Qtz/epi/hem veining between 176.88 to 177.00 metres. Qtz/zeo vein between 177.13 to 177.32 metres. Brown colour due to weak sericite +/- fine biotite alt'n.	115726	0.023	0.034
178.00	180.00	Fine-medium-grained medium green chloritic silicic	4.0		5 QZHVI 80 7	Weak epidote alt'n associated with hematite alt'n locally between 178.36 to 178.42 metres. Augite phenocrysts. Disseminated pyrite, aggregates and local stringers. Rare zeolite veining.	115727	0.029	0.041
180.00	182.00		3.0		31 QZHCV 70 10	Augite phenocrysts. Broken locally. Qtz/cal/zeo veining between 181.86 to 181.96 metres. Qtz/calcite veining between 181.66 to 181.77 metres. Magnetite aggregates associated with pyrite veining. Very weak epidote alt'n. Pyrite aggregates.	115728	0.032	0.061

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
182.00	183.94	Fine-medium-grained medium green chloritic silicic	5.0	1	QVN 80 7	Patchy brown colour due to weak sericite +/- fine biotite alt'n associated with disseminated pyrite. Chloritic augite phenocrysts present. Kfsp/qtz/py vein between 182.92 to 182.97 metres.	115730	0.05	0.052
183.94	186.00		7.0	5	QVN 70 10	Qtz/cal vein between 181.94 to 182.40 metres. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Chloritic augite phenocrysts. Qtz/zeo/cal veining.	115731	0.05	0.068
186.00	188.00	Fine-medium-grained green brown sericitic chloritic	7.0	3	36 QZVN 80 7	Augite phenocrysts. Disseminated pyrite and aggregates. Brown colour due to weak sericite +/- fine biotite alt'n. Magnetite aggregates associated with qtz veining. Potassic between 186.73 to 187.13 metres with altered augite, light gray/yellow, possibly sericitized. Rare chalcopyrite associated with pyrite aggregates.	115732	0.069	0.169
188.00	190.00		6.0	4	137 QZVI 60 5	Weak, localized potassic alt'n between 188.00 to 188.15 metres. Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates +/- chalcopyrite. Magnetite veining @ 188.63 to 188.78 metres. Weak epidote alt'n.	115733	0.064	0.076
190.00	191.74		6.0	4	247 QZVN 80 5	Weak, patchy epidote alt'n also in veining associated with qtz vein. Disseminated pyrite and aggregates. Brown colour due to weak sericite +/- fine biotite alt'n. Massive magnetite and stringers.	115734	0.056	0.065
191.74	194	<b>BASALT FLOW BRECCIA</b>							
191.74	194.00	Fine-medium-grained medium green chloritic silicic	5.0	2	0 QZCVN 0 15	Moderate localized epidote alt'n. Qtz/zeo/cal veining between 191.74 to 192.40 metres. Crackle breccia associated with veining. Brown colour due to weak sericite +/- fine biotite alt'n. Qtz/zeo veining. Local potassic alt'n. Pyrite aggregates.	115735	0.034	0.042
194	200	<b>BASALT FLOW</b>							
194.00	195.68	Fine-medium-grained dark green chloritic silicic	3.0		61 QZCHV 0 15	Fault plane lined with hem/qtz/calcite. Flow is weakly epidotized with pyrite aggregates. Pyrite vein between 195.25 to 195.29 metres. Qtz/zeo.	115736	0.019	0.017
195.68	196.00	Fine-medium-grained medium green chloritic silicic	2.0	1	2 QZCV 30 7	Chloritic. Qtz/cal stringers associated with pyrite locally.	115737	0.012	0.067
196.00	198.00		3.0	3	36 QZCV 80 10	Pyrite aggregates associated with epidote and magnetite between 196.39 to 196.45 metres. Epidote alt'n confined to veining. Qtz/zeo veining. Brown colour due to weak sericite +/- fine biotite alt'n.	115738	0.038	0.032

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
198.00	200.00	Fine-medium-grained medium green chloritic silicic	3.0	10	7 QZCV 0 7	Brecciated, potassic, qtz/zeo veining. Weak epidote alt'n confined to veining. Disseminated pyrite and aggregates. Local broken zones associated with increased epidote and hematite, pyrite and magnetite. Increased magnetite veining. Qtz/zeo veining.	115739	0.026	0.037
200		208		<b>BASALT FLOW BRECCIA</b>					
200.00	202.00	Fine-medium-grained medium green chloritic silicic	5.0	1	4 QZHCV 20 10	Medium green, fine grained. Weak patchy epidote alt'n. Brecciated locally. Qtz/calcite veining associated with zeolite locally. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates also associated with veining.	115740	0.085	0.109
202.00	204.00	Fine-medium-grained green brown chloritic silicic	6.0		2 QZCV 30 20	Patchy brown colour due to weak sericite +/- fine biotite alt'n. Local increase in qtz/calcite. Brecciated locally. Disseminated pyrite and aggregates.	115741	0.08	0.105
204.00	206.00		4.0	2	1 QZCV 70 15	Localized epidote alt'n, pervasive, associated with weak, patchy potassic alt'n. Qtz/cal/zeo veining. Disseminated pyrite and aggregates. Magnetite stringer @ ~ 205.37 metres.	115742	0.077	0.179
206.00	208.00		2.0	1	2 QZCV 80 10	Local increase in zeolite veining between 206.70 to 207.50 metres. Brecciated. Weak epidote alt'n. Chloritic. Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite, aggregates and veining.	115743	0.063	0.08
208		210		<b>BASALT FLOW</b>					
208.00	210.00	Fine-medium-grained green brown chloritic silicic	2.0	2	50 QZCV 45 7	Magnetite stringers. Brown colour due to weak sericite +/- fine biotite alt'n. Pyrite aggregates, stringers, disseminations associated with magnetite aggregates locally. Qtz/zeo veining. Moderate sericite and potassic alt'n between 209.68 to 210.00 metres.	115744	0.055	0.118
210		212		<b>BASALT FLOW BRECCIA</b>					
210.00	212.00	Fine-medium-grained green brown chloritic silicic	3.0	5	17 QZKCV 80 7	Sericitic/potassic altered portions between 210.19 to 210.32 metres. Magnetite stringers. Brown colour due to weak sericite +/- fine biotite alt'n. Moderately silicified. Magnetite stringers. Brecciated. Weak, localized epidote alt'n.	115745	0.075	0.162
212		214		<b>BASALT FLOW</b>					

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
212.00	214.00	Fine-medium-grained brown green sericitic silicic	3.0	3	51 QZCV 70 7	Magnetite vein between 212.06 to 212. 23 metres. Qtz/zeolite. Pyrite aggregates and disseminations. Chloritic. Patchy brown colour due to weak to moderate sericite +/- fine biotite alt'n. Hematite lining joints. Silicified light gray portion. Weak epidote alt'n in stringer form. Calcite associated with qtz veining.	115746	0.067	0.12
214		216		<b>BASALT FLOW BRECCIA</b>					
214.00	216.00	Fine-medium-grained brown green chloritic sericitic	3.0		0 QZCV 0 7	Medium brown colour due to weak to moderate sericite +/- fine biotite alt'n. Slight brecciated texture. Pyrite aggregates and disseminations in flow. Qtz/zeo veining associated with minor pyrite. Calcite associated with qtz/zeolite.	115747	0.068	0.2
216		224		<b>BASALT FLOW</b>					
216.00	218.00	Fine-medium-grained brown green sericitic silicic	4.0	1	1 QZVN 0 10	Mod epidote alt'n between 216.42 to 216.59 metres. Brown colour due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregate pyrite. Pyrite/qtz vein.	115748	0.068	0.133
218.00	220.00		4.0	3	0 QZVN 80 7	Brown colour due to moderate sericite +/- fine biotite alt'n associated with disseminated pyrite, aggregates and stringers. Weak epidote alt'n associated with pyrite aggregates locally @ 218.23 metres and between 218.38 to 218.41 metres. Qtz/zeo veining. Massive magnetite veining.	115749	0.101	0.158
220.00	221.90		3.0	0.1	3 2 QZVN 60 5	Brown colour due to moderate sericite +/- fine biotite alt'n. Pyrite aggregates, stringers, disseminations. Increased silicification from 221.07 to 221.49 metres associated with potassic altered portions, chalcopyrite aggregates and chloritic green portions. Magnetite stringers and aggregates.	115750	0.147	0.327
221.90	224.00		4.0	5	1 QZCV 10 7	Increased silicification and sericitization associated with disseminated pyrite, aggregates and stringers between 221.90 to 222.60 metres. Fuchsite between 222.13 to 222.24 metres associated with yellow sericite altered portions. Brown colour due to moderate sericite +/- fine biotite alt'n associated with disseminated pyrite, aggregates and stringers. Magnetite @ ~ 223.65 metres associated with qtz/calcite.	115751	0.109	0.269
224		225.86		<b>BASALT FLOW BRECCIA</b>					

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
224.00	225.86	Fine-medium-grained brown green sericitic chloritic	5.0	10	7 QZCV 20 7	Brown colour due to moderate sericite +/- fine biotite alt'n. Magnetite and pyrite aggregates and veining. Augite phenocrysts visible in places. Weak, patchy potassic alt'n @ 224.72 and between 225.55 to 225.70 metres. Weak epidote alt'n. Chlorite. Disseminated pyrite and aggregates.	115752	0.122	0.124
225.86		<b>BASALT FLOW</b>							
225.86	227.05	Fine-medium-grained medium green chloritic epidote	4.0	0.2	2 28 QZCV 0 10	Moderate epidote alteration. Less chloritic, light to medium green. Qtz/mag veining associated with pyrite locally. Augite phenocrysts. Chalcopyrite and pyrite aggregates @ ~ 226.67 metres. Magnetite veining associated with epidote and qtz veining. Disseminated pyrite.	115753	0.124	0.115
227.05	229.00	Fine-medium-grained green brown chloritic silicic	6.0	1	1 QZCV 5 5	Brown colour due to weak sericite +/- fine biotite alt'n. Medium/light green portions, chloritized augite phenocrysts. Weak, patchy epidote alteration. Very weak potassic alt'n between 228.07 to 228.35 metres. Increased epidote alt'n between 228.35 to 228.53 metres. Local increase in pyrite stringers between 227.05 to 227.73 metres.	115754	0.069	0.087
229.00	231.00	Fine-medium-grained green brown chloritic sericitic	10.0	1	2 QZVN 90 7	Disseminated pyrite and aggregates locally associated with epidote. Brown colour due to weak sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite and aggregates between 229.55 to 229.98 metres and 230.62 to 230.72 metres; associated with epidote between 229.91 to 229.98 metres. Chloritic green portion between 230.12 to 230.62 metres associated with epidote alt'n.	115756	0.065	0.084
231.00	233.00		4.0	1	1 QZMOV 90 5	Augite and plag phenocrysts between 231.06 to 231.17 metres. Qtz/zeo/moly vein between 231.50 to 231.53 metres. Weak, patchy chlorite and epidote alt'n. Brown colour between 232.26 to 232.72 metres associated with an increase in disseminated pyrite and aggregates. Py/epi vein between 232.65 to 232.70 metres associated with epidote and magnetite.	115757	0.113	0.19
233.00	235.00	Fine-medium-grained light green chloritic silicic	3.0	1	24 QZVN 90 5	Chloritic. Augite phenocrysts visible locally. Weak, patchy epidote alt'n. Disseminated pyrite and aggregates. Qtz/zeo veining @ ~ 234.05 to 234.10 metres. Moderately siliceous.	115758	0.067	0.081



## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
235.00	237.00	Fine-medium-grained medium green chloritic epidote	4.0	20	QZVN 70 7	Moderate epidote alt'n associated with pyrite and zeolite between 236.00 to 236.30 metres. Local broken zones. Increase in epidote between 236.46 to 236.79 metres.	115759	0.056	0.099
237	241	<b>BASALT FLOW BRECCIA</b>							
237.00	239.00	Fine-medium-grained medium green chloritic epidote	3.0	1	QZVN 80 7	Chloritic, weak to moderate epidote alt'n. Weak, patchy potassic alt'n between 237.75 to 238.00 metres. Locally brecciated, associated with potassic alt'n.	115760	0.059	0.096
239.00	241.00	Fine-medium-grained light green chloritic sericitic	4.0	1	1 QZVN 90 10	Chloritic. Augite phenocrysts present locally. Silicified between 239.46 to 239.59 metres in association with pyrite and magnetite. Faint brown colour due to weak sericite +/- fine biotite alt'n. Weak epidote alt'n. Disseminated pyrite and aggregates.	115761	0.131	0.269
241	242.42	<b>BASALT FLOW</b>							
241.00	242.42	Fine-medium-grained green brown chloritic sericitic	3.0	0	QKMOV 90 7	Qtz vein between associated with epidote and minor moly. Chlorite augite phenos locally visible. Brown patchy colour due to weak sericite +/- fine biotite. Disseminated pyrite aggregates, rare qtz kspars vein at about 242.15m.	115762	0.132	0.285
242.42	244.38	<b>BASALT FLOW BRECCIA</b>							
242.42	244.38	Fine-medium-grained green brown chloritic potassic	3.0	0	QZCV 80 7	Brecciated pink brown staining possibly weak potassic alteration. Augite phenos present in breccia. Local quartz veining. Broken portions associated with weak epidote alteration about 242.8-242.93m. Diss py throughout.	115763	0.053	0.061
244.38	246.06	<b>BASALT FLOW</b>							
244.38	246.06	Fine-medium-grained light green chloritic silicic	2.0	0	QZHCV 60 5	Qtz-zeo vein from 244.5 to 244.65m. Associated with pyrite aggregates with local veins at 244.65-244.68m. Weak epidote alteration with broken zones. 5cm py-qtz vein @ 244.9m. Augite phenos present.	115764	0.045	0.1
246.06	250	<b>BASALT FLOW BRECCIA</b>							
246.06	248.00	Fine-medium-grained green brown chloritic sericitic	4.0	2	0 QZCV 90 10	245.06-246.22: local increase in epidote alteration. Patch brown colour due to weak sericite-biotite alteration. 246.69m and 247m- 10cm silicified sections.	115765	0.066	0.095
248.00	250.00	Fine-medium-grained light green chloritic epidote	3.0	0	QZCV 30 7	Py veining @ 248.71-249.08; Qtz-zeo veining @ 249.27m.	115766	0.095	0.105
250	254.87	<b>BASALT FLOW</b>							

## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
250.00	252.00	Fine-medium-grained green brown chloritic epidote	4.0	2	0 QZVN 90 10	250.13m - hematite veinlet with local quartz.	115767	0.219	1.03
252.00	253.76	Fine-medium-grained light green chloritic silicic	2.0		1 QZHV 0 5	Augite phenos present.	115768	0.068	0.112
253.76	254.87		4.0	2	27 QZVN 40 70	Local increase in quartz veining.	115769	0.186	0.244
254.87	260	<b>BASALT FLOW BRECCIA</b>							
254.87	256.00	Fine-medium-grained light green chloritic silicic	3.0	1	1 QZVN 0 7	255.87-256.05; vuggy section.	115770	0.078	0.105
256.00	258.00		4.0	2	10 QZVN 0 10		115771	0.086	0.162
258.00	260.00		3.0	1	3 QZVN 90 10	Qtz-zeo veining 259.23-259.29; vuggy 259.45-259.56m; qtz-mt vein at 259.8m.	115772	0.121	1.675
260	302	<b>BASALT FLOW</b>							
260.00	262.00	Fine-medium-grained green brown chloritic sericitic	5.0	2	2 QZVN 70 7	Plag-augite phyrlic section.	115773	0.101	0.109
262.00	264.00	Fine-medium-grained green brown chloritic silicic	5.0	1	12 QZHV 90 7	Disseminated pyrite-magnetite associated with qtz veining.	115774	0.084	0.085
264.00	266.09		4.0	1	40 QZVN 80 5	Augite-plagioclase phyrlic section.	115775	0.094	0.113
266.09	268.02		3.0	1	8 QZVN 0 10	266.9-266.57 shows a local increase in quartz veining.	115776	0.074	0.078
268.02	270.00		3.0		13 QZVN 0 15	Augite plag phenos present.	115777	0.072	0.082
270.00	272.00		1.0	1	58 50 5		115778	0.025	0.032
272.00	274.00		1.0	1	33 QZHV 90 7		115779	0.05	0.066
274.00	276.00		2.0	1	4 QZHV 0 7		115780	0.094	0.104
276.00	278.00	Fine-medium-grained brown green sericitic chloritic	5.0	3	4 QZHV 80 7	277.49 increased veining (qtz-kfsp-mt-py)	115782	0.094	0.122
278.00	280.00	Fine-medium-grained brown green sericitic silicic	6.0	1	42 QZVN 90 7	278-279m; increase in epidote alteration.	115783	0.124	0.142
280.00	282.00		3.0		34 QZVN 0 5		115784	0.049	0.091
282.00	284.00		2.0	1	32 QZCV 30 7	282.18-288.23; local kspars(?) alteration.	115785	0.09	0.063
284.00	286.03		2.0	1	71 QZVN 30 10	Augite phenos present.	115786	0.102	0.225
286.03	288.00		2.0	1	10 QZHV 0 7		115787	0.088	0.107
288.00	290.00	Fine-medium-grained brown green chloritic sericitic	4.0	1	12 QZCV 90 7		115788	0.085	0.076

**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
290.00	292.00	Fine-medium-grained green brown chloritic sericitic	3.0	28	QZHCV 80 5		115789	0.117	0.104
292.00	294.00	Fine-medium-grained green brown chloritic silicic	2.0	40	QZHCV 0 7		115790	0.091	0.122
294.00	296.00	Fine-medium-grained green brown chloritic sericitic	5.0	1	3 QZMOV 0 8		115791	0.127	0.165
296.00	298.00		5.0	0.1	4 40 QZMOV 10 7	Massive mt 296-296.61m; weak epidote alteration. Desseminated py-cpy.	115792	0.158	0.17
298.00	300.00		5.0	0.1	1 69 QZVN 90 10	298.23; pyrite-chalcopyrite aggregates.	115793	0.106	0.177
300.00	302.00	Fine-medium-grained green brown chloritic silicic	4.0	3	25 QZVN 90 7	About 0.8m of core missing; 20cm massive mt vein @ 301.76m.	115794	0.153	0.346
302	306	<b>BASALT FLOW BRECCIA</b>							
302.00	304.00	Fine-medium-grained medium brown sericitic silicic	6.0	1	12 QZVN 80 10	Augite phyric section still present.	115795	0.211	0.216
304.00	306.00		5.0	1	18 QZHCV 90 15		115796	0.085	0.122
306	331.37	<b>BASALT FLOW</b>							
306.00	308.00	Fine-medium-grained medium green chloritic silicic	1.0	2	3 QZV 80 10		115797	0.1	0.144
308.00	310.00		1.0		6 QZHCV 70 10		115798	0.149	0.249
310.00	312.00		1.0		7 QZHCV 80 10	Gouge infilling fault zone 310.35-310.40m.	115799	0.078	0.2
312.00	314.00		0.5		15 QZCV 30 10		115800	0.143	0.218
314.00	316.00	Fine-medium-grained brown green sericitic chloritic	2.0	1	9 QZCV 60 15		115801	0.186	0.385
316.00	318.00	Fine-medium-grained brown green sericitic silicic	1.0	0.3	4 2 QZCV 70 80	317.53-317.69m; qtz-mt vein. Cpy aggregates @ 317.7m with qtz-zeo vein.	115802	0.285	0.603
318.00	320.00		1.0	0.1	2 1 QZHCM 30 10	319.09-319.48m; moly-hem-mt veinlet with qtz-zeolite.	115803	0.233	0.419
320.00	322.00		2.0	1	36 QZVN 90 30	Felsic-siliceous section between 321.29-321.52m.	115804	0.103	0.675
322.00	324.00	Fine-medium-grained medium green chloritic silicic	3.0	0.2	2 54 QZVN 70 10	Augite phyric section still present. Cpy aggregates at 323.16m	115805	0.074	0.145
324.00	326.00	Fine-medium-grained green brown chloritic silicic	2.0	0.2	2 42 QZVN 30 7	325.19m; cpy aggregates. Qtz-mt veining at 325.29m.	115806	0.056	0.109
326.00	327.83		4.0	0.1	1 13 QZCV 70 15	0.5m core loss.	115808	0.097	0.223
327.83	329.00	Fine-medium-grained medium green chloritic silicic	1.0	0.1	2 25 QZVN 50 10		115809	0.097	0.152

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
329.00	330.30	Fine-medium-grained medium green chloritic silicic	2.0 0.3	1	8 QZVN 5 15	324.46m - cpy aggregates associated with qtz veins.	115810	0.147	0.271
330.30	331.37	Fine-medium-grained red green chloritic silicic	1.0 0.1	1	9 QZHV 70 80		115811	0.102	0.224
331.37	341.07	<b>BASALT FLOW BRECCIA</b>							
331.37	333.00	Fine-medium-grained light brown chloritic silicic	3.0	1	5 QZVN 60 15		115812	0.059	0.092
333.00	334.95		3.0	1	4 QZVN 30 7	Amygdular section from 333.15-333.20m	115813	0.046	0.075
334.95	337.00		6.0 0.1	2	51 QZVN 90 10		115814	0.064	0.114
337.00	339.00	Fine-medium-grained medium green chloritic silicic	2.0	3	8 QZVN 30 7		115815	0.08	0.093
339.00	341.07		3.0	4	26 QZVN 90 5	Brecciated texture barely discernable.	115816	0.029	0.042
341.07	345.02	<b>BASALT FLOW</b>							
341.07	343.03	Fine-medium-grained medium green chloritic silicic	5.0 0.2	6	33 QZHV 10 10	342.48 - 343.03m; py-cpy aggregates and stringers. Unit remains augite phyrlic.	115817	0.049	0.057
343.03	345.02	Fine-medium-grained green brown chloritic sericitic	7.0 0.1	1	37 QZHV 50 5	Local broken zones.	115818	0.059	0.088
345.02	350.53	<b>GRANITOID</b>							
345.02	347.00	Fine-medium-grained medium brown silicic sericitic	2.0	1	1 QZVN 90 7	Phaneritic quartz-felspar bearing granitoid crosscut by qtz-zeolite veinlets.	115819	0.062	0.11
347.00	349.00		1.0	2	27 QZVN 0 5	Local broken zones.	115820	0.057	0.12
349.00	350.53	Fine-medium-grained light brown silicic epidote	1.0	3	2 QZVN 80 7	Massive mt units.	115821	0.197	0.606
350.53	437	<b>BASALT FLOW</b>							
350.53	352.00	Fine-medium-grained medium brown silicic sericitic		2	4 QZVN 80 10	Amygdular unit; mt-qtz stringers randomly oriented.	115822	0.091	0.152
352.00	353.61		1.0	2	16 QZKHV 20 15	Local broken zones.	115823	0.112	0.206
353.61	355.00	Fine-medium-grained brown green chloritic sericitic	4.0		1 QZVN 20 5		115824	0.08	0.121
355.00	357.10	Fine-medium-grained medium brown silicic sericitic	6.0		7 QZVN 90 5	Narrow sulfide bearing zone at 355.29m.	115825	0.047	0.108
357.10	358.00	Fine-medium-grained green-grey silicic chloritic	1.0	3	53 QZVN 50 95	Smokey grey qtz veining btween 357.71-357.81m.	115826	0.108	0.195
358.00	360.00	Fine-medium-grained light green silicic chloritic	2.0	2	0 QZVN 20 10	Silicified section: 359.3m to 359.83m.	115827	0.062	0.091

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
360.00	362.00	Fine-medium-grained silicic chloritic light green	2.0	2	8 QZVN 60 10		115828	0.075	0.111
362.00	364.00	Fine-medium-grained silicic sericitic light green	3.0	2	2 QZVN		115829	0.074	0.106
364.00	366.00		2.0	4	30 QZVN 90 15	364.64 - 364.85m; qtz-zeolite vein.	115830	0.117	0.313
366.00	367.67		2.0	4	40 QZVN 90 10		115831	0.076	0.2
367.67	369.00	Fine-medium-grained chloritic sericitic green brown	5.0	3	30 QZVN 1 15		115832	0.137	0.332
369.00	371.00		4.0	2	3 QZVN 30 5	Augite phenos present. Mt vein at 369.97m.	115834	0.072	0.141
371.00	373.00	Fine-medium-grained green chloritic silicic medium	3.0	3	57 QZVN 30 10	371.98m; py-cpy aggregates.	115835	0.069	0.222
373.00	375.00		2.0	1	27 QZVN 80 15		115836	0.083	0.195
375.00	375.80	Fine-medium-grained chloritic epidote light green	0.5		14 QZVN 0 10		115837	0.067	0.127
375.80	376.90	Fine-medium-grained green chloritic silicic medium	0.5	2	56 QZVN 80 5		115838	0.021	0.043
376.90	378.56		1.0		18 QZHV 0 15		115839	0.034	0.074
378.56	380.00		1.0	1	46 QZHV 90 5	Mt-cpy stringers associated with quartz vein at 379.47m	115840	0.029	0.058
380.00	382.00		1.0		70 QZVN 70 5		115841	0.059	0.081
382.00	384.00		1.0		54 QZVN 90 7	Local broken zones.	115842	0.064	0.095
384.00	386.00		2.0	0.3	1 27 QZVN 60 7	Mt-cpy-py aggregates between 384.27 - 384.47m.	115843	0.114	0.106
386.00	388.00		1.0	0.1	3 13 QZKVN 90 5	Rare kspar veining.	115844	0.06	0.1
388.00	390.00		0.5	3	20 QZVN 90 5		115845	0.032	0.059
390.00	392.00		0.5	1	30 QZVN 30 5		115846	0.026	0.081
392.00	394.00		0.5	1	75 QZVN 20 5		115847	0.013	0.022
394.00	396.13			1	52 QZVN 90 5	Augite phenos present; minor broken zones.	115848	0.014	0.023
396.13	398.25		2.0	3	37 QZVN 20 7	397.67 - 397.94m; qtz-mt veining. Minor broken zones.	115849	0.072	0.225
398.25	399.48	Fine-medium-grained amygdular chloritic silicic medium green	2.0	2	16 QZVN 90 5	Amygdaloidal structures present.	115850	0.044	0.096
399.48	400.42	Fine-medium-grained green chloritic silicic medium	1.0	2	7 QZVN 90 10		115851	0.123	0.19
400.42	402.00		3.0	1	13 QZVN 0 10		115852	0.084	0.275
402.00	404.00		2.0		15 QZVN 90 15		115853	0.049	0.101

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
404.00	406.00	Fine-medium-grained green chloritic silicic medium		35	QZVN 0 10		115854	0.066	0.131
406.00	408.00			22	QZVN 5 10		115855	0.059	0.107
408.00	410.00		3.0	8	QZVN 3 7		115856	0.086	0.2
410.00	411.68	Fine-medium-grained green silicic chloritic medium	0.5	40	QZVN 0 10		115857	0.018	0.04
411.68	413.00	Fine-medium-grained green chloritic silicic medium	0.5	37	QZVN 20 10	412.66 - 412.90; qtz-zeo-py vein associated with epidote alteration.	115858	0.029	0.06
413.00	415.00		0.5	1 36	QZVN 10 7	Vuggy dissolution textures between 413.0 - 413.6m.	115860	0.084	0.173
415.00	417.00	Fine-medium-grained green silicic chloritic medium	1.0	57	QZVN 3 7	Moderately broken; hematite lining joint and fracture surfaces.	115861	0.036	0.088
417.00	419.00	Fine-medium-grained green chloritic silicic medium	1.0	40			115862	0.015	0.029
419.00	421.00	Fine-medium-grained green silicic chloritic medium	1.0	113	QZVN 80 7		115863	0.081	0.092
421.00	423.12		1.0	3 42	QZVN 90 5		115864	0.049	0.1
423.12	425.00		2.0 0.1	2 42	QZVN 90 5		115865	0.119	0.165
425.00	427.00		1.0	28	QZVN 70 5		115866	0.228	0.363
427.00	429.00		0.5	1 84	QZVN 80 3	Mt stringers and quartz.	115867	0.024	0.041
429.00	431.00		2.0	3 87	QZVN 90 5		115868	0.088	0.22
431.00	433.00		1.0	1 51	QZVN 0 5	Hematite qtz veining.	115869	0.025	0.047
433.00	435.00		0.5	2 70	QZHV 80 7	Augite phyric unit persists.	115870	0.018	0.038
435.00	437.00		1.0 0.1	2 53	QZVN 80 5	436.04 - 436.1m; py-cpy aggregates.	115871	0.034	0.063
<b>437</b>	<b>445</b>	<b>BASALT FLOW BRECCIA</b>							
437.00	439.10	Fine-medium-grained green brown chloritic sericitic	1.0 0.1	3 61	QZVN 0 7		115872	0.066	0.105
439.10	441.00		1.0 0.3	2 48	QZVN 90 5	439.47 - 439.5m; py-cpy aggregates.	115873	0.091	0.151
441.00	445.00	Fine-medium-grained brown green sericitic chloritic	4.0 0.1	4 27	QZVN 80 7		115874	0.098	0.142
<b>445</b>	<b>476.1</b>	<b>BASALT FLOW</b>							
445.00	447.00	Fine-medium-grained green brown chloritic silicic	2.0	5 44	QZVN 90 5		115875	0.041	0.077
447.00	449.00		2.0	2 36	QZVN 90 7	Desseminated py-cpy.	115876	0.068	0.128

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
449.00	451.00	Fine-medium-grained brown green sericitic chloritic	4.0	1	25 QZVN 60 7	Chalcedonic-qtz vein; 15cms @ 449.0m	115877	0.072	0.114
451.00	453.00	Fine-medium-grained medium green chloritic silicic	2.0	5	58 QZVN 90 7		115878	0.14	0.365
453.00	454.66	Fine-medium-grained green brown silicic chloritic	2.0	3	26 QZHV 0 5		115879	0.191	0.42
454.66	456.52		2.0	0.3	5 64 QZHV 0 15		115880	0.162	0.461
456.52	458.00		3.0	0.1	5 176 QZVN 70 7		115881	0.123	0.341
458.00	460.00		4.0	0.3	5 29 QZVN 90 10	Massive mt zone; cpy at 459.66m with qtz-zeolite vein.	115882	0.106	0.232
460.00	462.10	Fine-medium-grained brown green sericitic chloritic	3.0	0.1	3 10 QZVN 90 10	460.04m; qtz vein with py-cpy; qtz-mt vein at 461.53 to 461.94m	115883	0.199	0.482
462.10	464.61		5.0	0.1	3 55 QZVN 60 10		115884	0.208	0.447
464.61	466.00	Fine-medium-grained light green silicic chloritic	1.0	5	3 QZKN 80 7		115886	0.108	0.167
466.00	468.00		2.0	7	3 QZKN 90 10	466.44-466.92m; qtz vein with mt-py aggregates. Locally vuggy.	115887	0.09	0.125
468.00	468.70		0.5	1	13 QZVN 20 7		115888	0.052	0.071
468.70	470.05	Fine-medium-grained green brown chloritic sericitic	2.0	0.1	3 19 QZVN 1 20	Cpy-py aggregates between 469.54-469.76m.	115889	0.276	0.476
470.05	472.00	Fine-medium-grained green brown chloritic silicic	1.0	2	59 QZVN 0 20	Augite phyrlic unit persists.	115890	0.127	0.236
472.00	473.73	Fine-medium-grained medium green chloritic silicic	1.0	0.2	4 38 QZVN 90 15	472.55m; cpy-py aggregates in qtz veinlets.	115891	0.207	0.608
473.73	476.10		2.0	1	16 QZHV 30 10		115892	0.176	0.287
<b>476.1</b>	<b>478</b>	<b>BASALT FLOW BRECCIA</b>							
476.10	478.00	Fine-medium-grained medium green chloritic silicic	2.0	1	10 QZHV 80	Qtz-zeo veinlets 476.62 - 477.19m. Broken section at 477.19m.	115893	0.257	0.374
<b>478</b>	<b>538</b>	<b>BASALT FLOW</b>							
478.00	480.00	Fine-medium-grained medium green chloritic silicic	2.0	1	22 QZVN 0		115894	0.094	0.162
480.00	481.87	Fine-medium-grained green brown chloritic sericitic	2.0	1	32 QZHV 5 5	Broken section; disseminated pyrite with qtz-hem-zeo stringers.	115895	0.152	0.199
481.87	482.86	Fine-medium-grained medium green chloritic silicic	3.0	2	24 QZVN 0 4	Mt stringers throughout.	115896	0.116	0.095
482.86	484.00		3.0	2	5 QZVN 90 5		115897	0.06	0.072

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
484.00	486.00	Fine-medium-grained green brown chloritic silicic	2.0	1	14 QZHV 20 7		115898	0.092	0.171
486.00	488.00		3.0	3	13 QZHV 0 7		115899	0.056	0.073
488.00	490.00		5.0	10	36 QZVN 70 10		115900	0.057	0.062
490.00	492.00	Fine-medium-grained green brown silicic chloritic	7.0	7	13 QZVN 90 7		115901	0.047	0.068
492.00	494.00	Fine-medium-grained medium green silicic chloritic	4.0	5	24 QZHV 40 7		115902	0.125	0.189
494.00	496.00		4.0	2	4 QZVN 50 5		115903	0.035	0.049
496.00	498.00		5.0	2	11 QZVN 90 6		115904	0.062	0.087
498.00	500.00		3.0	2	43 QZVN 90 3		115905	0.028	0.045
500.00	502.00	Fine-medium-grained medium green chloritic silicic	5.0	0.5	3 10 QZVN 80 5	500.2 - 500.26m; cpy in qvein.	115906	0.064	0.088
502.00	504.00	Fine-medium-grained green brown chloritic sericitic	4.0	0.1	2 13 QZVN 80 7		115907	0.06	0.094
504.00	506.00		5.0	0.1	1 52 QZVN 90 10	Disseminated pyrite-chalcopyrite associated with mt-qtz-veinlets.	115908	0.051	0.073
506.00	508.00		6.0	0.5	2 11 QZHV 80 10		115909	0.058	0.065
508.00	510.00		5.0	0.1	2 52 QZHV 20 5	Disseminated pyrite and stringers and broken zone; augite phyric unit persists.	115910	0.055	0.064
510.00	512.00	Fine-medium-grained green brown chloritic silicic	4.0		3 57 QZHV 80 15		115912	0.191	0.314
512.00	514.00		6.0	0.1	5 60 QZVN 40 7	Mt-py veining between 512.29 and 512.42m.	115913	0.193	0.213
514.00	516.00		4.0	0.1	2 18 QZVN 30 7		115914	0.092	0.204
516.00	517.91		3.0	0.1	2 60 QZVN 80 5		115915	0.132	0.247
517.91	520.00	Fine-medium-grained green brown chloritic sericitic	5.0	0.1	3 31 QZVN 90 7	518.65 - 518.73m; qtz-zeo-mt veining.	115916	0.261	0.488
520.00	522.00		3.0		3 44 QZVN 80 10		115917	0.141	0.288
522.00	524.00	Fine-medium-grained brown green sericitic chloritic	6.0		2 13 QZVN 80 5		115918	0.189	0.234
524.00	526.00		6.0	0.3	2 10 QZVN 90 7		115919	0.25	0.362
526.00	528.00	Fine-medium-grained green brown chloritic silicic	4.0	0.1	3 12 QZVN 40 10	Qtz-zeo-mt-py veining @ 526.07 and 527m.	115920	0.476	0.593
528.00	530.00		5.0	0.3	2 17 QZVN 30 10		115921	0.495	0.506



## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
530.00	531.79	Fine-medium-grained green brown chloritic sericitic	4.0 0.1	3	26 QZVN 80 7		115922	0.157	0.255
531.79	534.00	Fine-medium-grained brown green chloritic sericitic	6.0	1	22 QZVN 40 15		115923	0.257	0.896
534.00	536.00		6.0	1	29 QZVN 90 10		115924	0.254	0.329
536.00	538.00		5.0	1	15 QZVN 60 5		115925	0.238	0.378
538	540	<b>BASALT FLOW BRECCIA</b>							
538.00	540.00	Fine-medium-grained brown green chloritic silicic	4.0	2	29 QZVN 70 7		115926	0.153	0.237
540	551	<b>BASALT FLOW</b>							
540.00	542.00	Fine-medium-grained green brown chloritic silicic	3.0	5	24 QZVN 70 7	Massive mt units. Augite pyric units continue.	115927	0.088	0.181
542.00	543.00		4.0	1	QZVN 80 3		115928	0.231	0.296
543.00	545.00		3.0	1	QZVN 0 5		115929	0.125	0.193
545.00	547.00		5.0	1	QZVN 80 5		115930	0.108	0.154
547.00	549.00		5.0 0.5	3	QZVN 5 10	547.97 and 548.17m; cpy-py disseminations.	115931	0.273	0.43
549.00	551.00	Fine-medium-grained green brown chloritic sericitic	5.0 0.1	2	QZVN 30 7		115932	0.197	0.352
551	562	<b>BASALT FLOW BRECCIA</b>							
551.00	552.53	Fine-medium-grained green brown chloritic silicic	4.0 0.1	3	QZVN 80 3	Fault brecciated section.	115933	0.063	0.102
552.53	554.00				QZVN		115934	0.105	0.18
554.00	556.00		3.0	2	QZVN 20 5		115935	0.119	0.243
556.00	558.00		2.0	3	QZVN 80 5		115936	0.108	0.258
558.00	560.00		2.0	5	QZVN 90 7		115938	0.103	0.168
560.00	562.00		2.0 0.3	3	QZVN 30 7	Cpy grains at 561.25m. Associated with qtz-zeo vein.	115939	0.16	0.219
562	568	<b>BASALT FLOW</b>							
562.00	564.00	Fine-medium-grained green brown chloritic silicic	1.0 0.1	1	QZVN 80 10	Disseminated py-cpy at 562.72m.	115940	0.092	0.172
564.00	566.00		1.0 0.1	1	QZHV 0 7		115941	0.032	0.077
566.00	568.00		5.0	1	QZVN 60 7		115942	0.098	0.143
568	569.89	<b>BASALT FLOW BRECCIA</b>							

## Hole Number: KN-02-51

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
568.00	569.89	Fine-medium-grained green brown chloritic silicic	4.0 0.2	2	QZVN 90 7	Brecciated pyrite aggregates.	115943	0.327	0.576
569.89	574	<b>BASALT FLOW</b>							
569.89	572.00	Fine-medium-grained green brown chloritic silicic	5.0 0.3	5	QZVN 3 10	Desseminated py-cpy at 571.38.	115944	0.15	0.213
572.00	574.00		5.0 0.3	5	QZVN 90 10	572.83m; Mt-qtz-py vein; Py-cpy at 573.02m	115945	0.158	0.274
574	578	<b>BASALT FLOW BRECCIA</b>							
574.00	575.94	Fine-medium-grained green brown chloritic silicic	4.0 0.1	3	QZVN 20 10		115946	0.121	0.45
575.94	578.00		6.0 0.3	5	QZVN 3 15		115947	0.216	0.585
578	668.12	<b>BASALT FLOW</b>							
578.00	580.00	Fine-medium-grained green brown chloritic silicic	1.0	2	QZVN 30 7		115948	0.1	0.197
580.00	582.00	Fine-medium-grained brown green sericitic chloritic	3.0 0.2	5	QZVN 90 10		115949	0.342	0.684
582.00	584.00	Fine-medium-grained green brown silicic chloritic	4.0 0.3	3	QZVN 5 7	Qtz veins with py-cpy @ 582.78 and 582.84m. Local broken zones.	115950	0.382	0.769
584.00	585.97		3.0 0.3	5	QZVN 90 10		115951	0.34	0.72
585.97	588.00	Fine-medium-grained brown green sericitic silicic	6.0 0.3	6	QZVN 30 10		115952	0.145	0.253
588.00	590.00		4.0 0.5	10	QZVN 90 15		115953	0.216	0.352
590.00	592.00	Fine-medium-grained green brown chloritic silicic	2.0 0.1	3	QZVN 90 10		115954	0.352	0.709
592.00	594.05		5.0 0.5	5	QZVN 70 10	Local mt stringers. Py-cpy at 593.94m and 594.05m associated with qtz-zeo veinlets.	115955	0.142	0.278
594.05	596.05		3.0 0.1	1	QZCV 70 70		115956	0.202	0.372
596.05	597.92	Fine-medium-grained brown green sericitic chloritic	3.0	2	QZVN 0 7		115957	0.154	0.28
597.92	599.18		3.0	5	QZVN 70 10		115958	0.272	0.644
599.18	600.97		2.0 0.1	1	QZVN 60 7	Qvn with cpy-py; augite phyric unit continuing.	115959	0.189	0.346
600.97	602.00		2.0 0.5	1	QZVN 90 10		115960	0.251	0.452
602.00	604.00		5.0 0.1	1	QZVN 60 3		115961	0.212	0.322
604.00	606.00		3.0	1	QZVN 40 7		115962	0.343	0.699

**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
606.00	608.00	Fine-medium-grained green brown chloritic silicic	4.0	0.2	1	QZVN 0 5	606.66m; cpy-py in qtz-mt vein.	115964	0.166	0.311
608.00	610.00	Fine-medium-grained brown green sericitic chloritic	4.0	0.5	2	QZVN 70 20	Qtz-zeo veining at 609.32, 609.45 with py-cpy mineralization.	115965	0.296	0.606
610.00	612.00		2.0	0.1	3	QZVN 0 10		115966	0.164	0.406
612.00	614.00		3.0		5	QZVN 70 15		115967	0.223	0.5
614.00	616.00	Fine-medium-grained green brown chloritic sericitic	4.0		3	QZVN 90 7		115968	0.158	0.298
616.00	618.00		4.0		5	QZVN 90 7		115969	0.244	0.42
618.00	619.21		4.0		3	QZGV 30 10	619.13-619.21m clear qtz-selanite vein.	115970	0.258	0.447
619.21	620.00	Fine-medium-grained brown green sericitic chloritic	3.0		1	QZCV 0 20		115971	0.293	0.578
620.00	622.00		4.0		3	QZVN 90 10		115972	0.206	0.403
622.00	624.00	Fine-medium-grained green brown chloritic sericitic	1.0		4	QZVN 50 5	Major core loss. Massive mt with access. Disseminated pyrite.	115973	0.205	0.385
624.00	626.00		1.0	0.1	7	QZVN 60 3		115974	0.238	0.504
626.00	628.00		3.0	0.5	5	QZVN 70 5		115975	0.208	0.476
628.00	630.00		3.0	0.1	5	QZVN 90 7		115976	0.291	0.693
630.00	631.95	Fine-medium-grained grey-green chloritic sericitic	2.0	0.2	2	QZVN 3 3		115977	0.34	0.653
631.95	634.00		4.0	0.1	1	QZVN 90 10		115978	0.256	0.53
634.00	636.00		4.0	0.1	1	QZVN 70 10	Qtz-potassic alteration; 7-8% pyrite and broken section at 634.79 - 635.05m.	115979	0.144	0.355
636.00	638.00		1.0			QZVN 3 7	Augite phyric section diminishing.	115980	0.09	0.256
638.00	640.00		1.0			QZVN 0 5		115981	0.059	0.192
640.00	642.00		1.0			FLT 3	Quartz flooded zone.	115982	0.096	0.244
642.00	644.00		2.0	0.3	10	QVN 20		115983	0.061	0.099
644.00	646.00		3.0	0.1	2	QVN 40 10		115984	0.115	0.095
646.00	648.00		1.0		4	QVN 45 5		115985	0.023	0.08
648.00	650.00		2.0		3	QVN 40 4		115986	0.031	0.075
650.00	652.00		2.0		7	QVN 55 7	Local qtz veinlets @ 5-7cms wide with acc. Kspar(?) alteration.	115987	0.055	0.121
652.00	654.00		2.0		7	QVN 55 5		115988	0.052	0.224

**Hole Number: KN-02-51**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
654.00	656.00	Fine-medium-grained grey-green chloritic sericitic	2.0	0.3	10	QVN 15 20	115990	0.102	0.418
656.00	658.00		2.0		5	QCV 15 10	115991	0.123	0.517
658.00	660.00		2.0	0.1	5	QVN 10	115992	0.069	0.225
660.00	662.00		3.0		7	QVN 7 Pyrite magnetite veinlets xcut by qtz veinlets.	115993	0.047	0.077
662.00	663.67		2.0		7	QVN 10	115994	0.041	0.082
663.67	664.15		5.0		10	QVN 30	115995	0.121	0.104
664.15	666.05		3.0	0.5	4	QCV 60	115996	0.332	0.29
666.05	668.12		3.0	0.8	4	FLT 15 10 Quartz flooding with veinlets locally xcut by py-mt veins. Local zone of gouge at 15 to CA. EOH 668.12m	115997	0.072	0.144

668.12 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-52**

<b>Northing:</b> 14793.8	<b>Total Depth:</b> 660.67m
<b>Easting:</b> 8867.36	<b>Azimuth:</b> 0°
<b>Elevation:</b> 1748.8	<b>Dip:</b> -90°

<b>Geologist:</b> B.Mercer
<b>Logged Date:</b> 10/25/200

Survey Depth	Azimuth	Dip	Comments:
91 m	0 °	-89 °	
183 m	0 °	-88 °	
274 m	0 °	-88 °	
366 m	0 °	-88 °	
457 m	0 °	-88 °	
549 m	0 °	-87 °	
659 m	0 °	-87 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-52**

From (m)	To (m)	Rock Type	Comments
0	6.71	CASING	Overburden - No recovery
6.71	58	INTERMEDIATE VOLCANIC FLOW	C.g. granular and mottled textured with strong ser/chl alt. Disseminated py and semi-massive thin py. stringers.
58	58.3	INTERMEDIATE VOLCANIC FAULT	
58.3	107.05	INTERMEDIATE VOLCANIC FLOW	Very local, f.g. magnetite.
107.05	110.64	INTERMEDIATE FRAGMENTAL	Outlines of sub-rounded fragments and fine tuffaceous fragments. slight reddish tinge locally, due to kfsp alt'n.
110.64	118	INTERMEDIATE VOLCANIC FLOW	Some kfsp alt'n in selvages of qtz/zeo veinlets.
118	124	INTERMEDIATE FRAGMENTAL	Contact with unit above is marked by heavy silicification. Strong kfsp locally.
124	132.64	INTERMEDIATE VOLCANIC FLOW	Massive chalcopyrite associated with massive and semi-massive pyrite veinlets.
132.64	317.7	BASALT FLOW	Augite porphyritic.
317.7	392.86	INTERMEDIATE VOLCANIC FLOW	Local chlorite lined vugs.
392.86	501	BASALT FLOW	Augite porphyritic basalt. Moderate chlorite alt'n. One narrow silicified zone as above.
501	501.42	BLADED FELDSPAR PORPHYRY DYKE	
501.42	547.02	BASALT FLOW	Contact is chilled; probably a dyke. Contains cream coloured and black bladed phenocrysts. The latter may be plagioclase replaced by hornblende.

Hole Number: **KN-02-52**

From (m)	To (m)	Rock Type	Comments
547.02	548.25	MONZONITE DYKE	Very well developed stockwork of qtz/zeolite veinlets creating a net-textured breccia. Weak clay alteration of feldspars.
548.25	576.67	BASALT FLOW	
576.67	577.23	MONZONITE DYKE	M.g. to f.g. crowded feldspar porphyry. Very similar to sample 120750 but without appreciable alt'n.
577.23	584.3	BASALT FLOW	
584.3	585.55	MONZONITE DYKE	3 cm wide vein running parallel t.c.a. for length of sample.
585.55	641.32	BASALT FLOW	
641.32	641.85	BLADED FELDSPAR PORPHYRY DYKE	
641.85	660.5	BASALT FLOW	Chlorite on fractures.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
0	6.71	<b>CASING</b>								
0.00	6.71					Overburden - No recovery	52	-2	-2	
6.71	58	<b>INTERMEDIATE VOLCANIC FLOW</b>								
6.71	8.00	Coarse-grained light green mottled sericitic chloritic	2.0	0.0	0	1 ZCV 10 1	C.g. granular and mottled textured with strong ser/chl alt. Disseminated py and semi-massive thin py. stringers.	117929	0.021	0.088
8.00	10.00		3.0	0.0	0	1 ZCV 35 1		117930	0.013	0.076
10.00	12.00		3.0	0.0	0	1 ZCV 85 1		117931	0.02	0.046
12.00	14.00		3.0	0.0	0	0 ZCV 85 5		117932	0.026	0.089
14.00	16.00	Coarse-grained light green vuggy sericitic chloritic	3.0	0.0	0	1 ZCV 75 15	Chlorite / sericite lined vugs between spider web of very thin zeolite/calcite veins..	117933	0.013	0.037
16.00	18.00	Coarse-grained light green mottled sericitic chloritic	3.0	0.0	0	0 ZCV 75 2		117934	0.024	0.037
18.00	20.00		3.0	0.0	0	0 ZCV 45 4		117935	0.022	0.058
20.00	22.00		4.0	0.0	0	1 ZCV 45 2		117936	0.021	0.072
22.00	24.00		2.0	0.0	0	1 ZCV 35 2		117937	0.027	0.096
24.00	26.00		1.0	0.0	0	0 ZCV 35 0		117938	0.025	0.08
26.00	28.00	Coarse-grained light green mottled sericitic	1.0	0.0	0	0 ZCV 35 2		117939	0.025	0.063
28.00	30.00		1.0	0.0	0	0 ZCV 40 3		117940	0.027	0.071
30.00	32.00		4.0	0.0	0	0 SVN 30 3	Massive py. veinlets. Very strong sericite alteration.	117941	0.004	0.024
32.00	34.00		4.0	0.0	0	0 SVN 25 2	Very thin massive py veinlets and abundant disseminated py.	117942	0.017	0.049
34.00	34.55		4.0	0.0	0	1 SVN 25 2		117943	0.01	0.041
34.55	36.00	Medium-grained green mottled chloritic sericitic	1.0	0.0	0	3 SVN 35 0	Occasional narrow irregular zone that is cream/tan coloured. May be patchy albitization.	117944	0.023	0.035
36.00	38.00	Coarse-grained green homogeneous chloritic sericitic	3.0	0.0	0	0 QKVN 0	Few thin veins each of qtz/kfsp, pyrite and zeo/carb.	117945	0.021	0.041
38.00	40.00		2.0	0.0	0	1 QKVN 0		117946	0.02	0.057
40.00	42.00		1.0	0.0	0	5 ZCV 10 2		117947	0.018	0.053



**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
42.00	44.00	Coarse-grained green homogeneous chloritic sericitic	2.0 0.0	0	1 ZCV 55 2		117948	0.015	0.083
44.00	46.00		3.0 0.0	1	27 ZCV 55 2	Minor amounts of magnetite in fractures.	117949	0.024	0.07
46.00	48.00		4.0 0.0	0	2 ZCV 60 1		117950	0.016	0.04
48.00	48.90		3.0 0.0	1	26 ZCV 60 0	Trace amounts of magnetite in fractures.	117951	0.014	0.028
48.90	50.00	Coarse-grained light green mottled sericitic chloritic	1.0 0.0	0	9 ZCV 40 3		117952	0.02	0.054
50.00	52.00		1.0 0.0	0	0 ZCV 40 3		117953	0.006	0.062
52.00	54.00		2.0 0.0	0	0 ZCV 45 7		117955	0.013	0.053
54.00	56.00		2.0 0.0	0	4 ZCV 45 12		117956	0.011	0.038
56.00	56.50		0.5 0.0	1	12 ZCV 45 15	M.g. and f.g. magnetite disseminated throughout host rock.	117957	0.018	0.045
56.50	58.00	Medium-grained green homogeneous chloritic	2.0 0.0	0	0 ZCV 50 2	Very weak chloritic alt'n.	117958	0.033	0.048
58	58.3	<b>INTERMEDIATE VOLCANIC FAULT</b>							
58.00	58.30	Fine-grained light green sericitic	0.0 0.0	0	0 FLT		117959	0.006	0.021
58.3	107.05	<b>INTERMEDIATE VOLCANIC FLOW</b>							
58.30	60.00	Medium-grained green homogeneous chloritic	3.0 0.0	1	16 SVN 55 0	Very local, f.g. magnetite.	117960	0.019	0.046
60.00	62.00		1.0 0.0	2	52 SVN 30 0	Massive pyrite and py/qtz veinlets. Very weak chlorite alt'n. Extremely f.g. magnetite near end of sample.	117961	0.023	0.043
62.00	64.00	Medium-grained green homogeneous chloritic silicic	2.0 0.0	1	1 SVN 30 2	Similar to above.	117962	0.025	0.038
64.00	66.00		3.0 0.0	0	2 SVN 35 0	Weak chlorite alt'n. Incipient and patchy silicification. Very local kfsp patches.	117963	0.022	0.06
66.00	68.00		3.0 0.0	1	14 QVN 35 0		117964	0.036	0.097
68.00	70.00		3.0 0.0	0	1 SVN 35 0		117965	0.027	0.061
70.00	72.00		3.0 0.0	0	1 SVN 45 0	Similar to above without kfsp.	117966	0.031	0.058
72.00	74.00		3.0 0.0	1	0 SVN 45 0	Local magnetite.	117967	0.019	0.063
74.00	76.00		4.0 0.0	0	0 QVN 50 2		117968	0.02	0.042
76.00	78.00	Medium-grained green homogeneous silicic chloritic	15.0 0.0	0	1 QVN 35 0	C.g. disseminated and irregular stringer pyrite. Moderate and nearly pervasive silicification.	117969	0.004	0.029

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
78.00	80.00	Medium-grained green homogeneous silicic chloritic	7.0 0.0	0	0 QVN 35 2	C.g. disseminated pyrite and moderately patchy silicification.	117970	0.009	0.038	
80.00	82.00		5.0 0.0	0	0 QVN 45 1		117971	0.016	0.045	
82.00	84.00		7.0 0.0	0	1 QVN 55 1	C.g. disseminated pyrite and moderately patchy silicification. Trace arsenopyrite.	117972	0.019	0.053	
84.00	86.00	Medium-grained green homogeneous chloritic silicic	7.0 0.0	0	0 QVN 65 2	C.g. disseminated pyrite and irregular stringer pyrite. Weak chloritic alt'n. Local silicification.	117973	0.015	0.045	
86.00	88.00	Medium-grained green homogeneous chloritic	7.0 0.0	0	14 QVN 70 1	As above, plus trace magnetite in qtz/py vein.	117974	0.023	0.057	
88.00	90.00		7.0 0.0	0	3 QVN 30 0	C.g. disseminated pyrite and irregular stringer pyrite. Weak chloritic alt'n. Local silicification.	117975	0.022	0.046	
90.00	92.00		7.0 0.0	0	1 QVN 35 0		117976	0.041	0.083	
92.00	93.08		12.0 0.0	1	22 CTC 35		117977	0.04	0.561	
93.08	94.00	Medium-grained light grey brecciated silicic	15.0 0.0	0	0 CTC 30	Very strong, pervasive silicification with mottled chlorite stringers. Appears to be breccia infill.	117978	0.03	0.336	
94.00	94.54	Medium-grained green homogeneous chloritic silicic	7.0 0.0	1	1 QVN 35 5	Weak, patchy silicification.	117979	0.006	0.03	
94.54	96.00	Fine-grained light grey green homogeneous sericitic silicic	7.0 0.0	0	0 QVN 45 4	Moderate silicification. Strong disseminated pyrite.	117981	0.042	0.114	
96.00	98.00		5.0 0.0	0	0 QVN 0		117982	0.038	0.068	
98.00	100.00	Fine-grained grey-green homogeneous chloritic silicic	7.0 0.0	0	0 SVN 40 1	Patchy silicification. Strong disseminated pyrite and semi-massive pyrite veinlets.	117983	0.028	0.051	
100.00	102.00	Fine-grained grey tan homogeneous chloritic silicic	2.0 0.0	1	1 QKVN 5	Patchy kfsp and weak silicification. Irregular qtz/kfsp veinlets, randomly oriented.	117984	0.025	0.065	
102.00	104.00	Fine-grained grey tan homogeneous sericitic silicic	2.0 0.0	0	0 QKVN 3		117985	0.023	0.052	
104.00	106.00	Fine-grained grey tan homogeneous chloritic silicic	2.0 0.0	0	0 SVN 0		117986	0.047	0.098	
106.00	107.05	Fine-grained grey-green homogeneous chloritic silicic	2.0 0.0	1	6 SVN 20 0	Bleaching and kfsp alt'n around qtz and pyrite veinlets.	117987	0.036	0.059	
107.05	110.64	<b>INTERMEDIATE FRAGMENTAL</b>								
107.05	109.05	Coarse-grained grey-green brecciated chloritic silicic	2.0 0.0	1	20 QZVN 20 0	Outlines of sub-rounded fragments and fine tuffaceous fragments. slight reddish tinge locally, due to kfsp alt'n.	117988	0.032	0.044	
109.05	110.64	Medium-grained grey-green brecciated chloritic silicic	3.0 0.0	1	16 QZVN 15 0	Strong, patchy kfsp alt'n. This unit contains <15% fragments, generally.	117989	0.033	0.063	

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
110.64	118	<b>INTERMEDIATE VOLCANIC FLOW</b>							
110.64	112.00	Medium-grained green homogeneous chloritic silicic	3.0	0.0	0 2 QZVN 35 0	Some kfsp alt'n in selvages of qtz/zeo veinlets.	117990	0.026	0.035
112.00	114.00		3.0	0.0	0 3 QZVN 35 0		117991	0.035	0.062
114.00	116.00		3.0	0.0	0 0 QZVN 35 5		117992	0.024	0.047
116.00	118.00		4.0	0.0	0 0 SVN 45 0		117993	0.02	0.036
118	124	<b>INTERMEDIATE FRAGMENTAL</b>							
118.00	120.00	Coarse-grained green brecciated chloritic silicic	4.0	0.0	0 3 QVN 40 0	Contact with unit above is marked by heavy silicification. Strong kfsp locally.	117994	0.027	0.046
120.00	122.00		4.0	0.0	0 23 SVN 40 0	Weak silicification.	117995	0.016	0.021
122.00	124.00		1.0	0.0	1 7 QZVN 50 5	Weak silicification. Trace c.g. magnetite in qtz vein. Contact- vague colour change.	117996	0.034	0.02
124	132.64	<b>INTERMEDIATE VOLCANIC FLOW</b>							
124.00	126.00	Medium-grained grey-green homogeneous chloritic	10.0	0.5	0 2 SVN 45 3	Massive chalcopyrite associated with massive and semi-massive pyrite veinlets.	117997	0.163	0.093
126.00	128.00		4.0	0.0	0 3 SVN 0		117998	0.026	0.036
128.00	130.00		10.0	0.0	0 2 SVN 25 0	Includes a 12 cm pyrite vein @ 40 degrees t.c.a.. Very strong disseminated pyrite.	117999	0.037	0.057
130.00	132.00		4.0	0.0	0 11 SVN 35 1		118000	0.016	0.024
132.00	132.64		7.0	0.0	1 50 SVN 35 1	V.f.g. magnetite near end of sample. Very hard to see or estimate.	120501	0.05	0.057
132.64	317.7	<b>BASALT FLOW</b>							
132.64	134.00	Coarse-grained grey-green chloritic	3.0	0.0	1 22 SVN 35 0	Augite porphyritic.	120502	0.046	0.059
134.00	136.00		3.0	0.0	0 3 QVN 35 0		120503	0.036	0.046
136.00	138.00		4.0	0.0	0 1 QVN 35 3		120504	0.037	0.058
138.00	138.68		0.5	0.0	1 23 ZCV 10 3		120505	0.011	0.068
138.68	140.00	Medium-grained grey-green homogeneous chloritic k-felspar	0.5	0.0	1 37 ZCV 3	Patchy kfsp alt'n in first 30 cm.	120507	0.012	0.037
140.00	141.13	Medium-grained grey-green homogeneous chloritic	0.5	0.0	1 12 QVN 20 0		120508	0.02	0.038
141.13	141.88	Coarse-grained light green brecciated chloritic sericitic	1.0	0.0	1 3 ZCV 15	Brecciated and filled with zeolite and carbonate.	120509	0.03	0.055

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
141.88	143.00	Medium-grained grey-green homogeneous chloritic	10.0 0.0	1	1 SVN 10 3		120510	0.018	0.039
143.00	145.00		3.0 0.0	1	3 SVN 40 2		120511	0.015	0.022
145.00	145.72	Medium-grained grey-green homogeneous chloritic sericitic	3.0 0.0	1	1 SVN 40 3		120512	0.01	0.018
145.72	147.00	Coarse-grained grey-green chloritic sericitic	3.0 0.0	0	3 QZVN 60 0	Very coarsely augite porphyritic.	120513	0.017	0.041
147.00	149.00		4.0 0.0	0	1 QZVN 3		120514	0.024	0.081
149.00	151.00	Coarse-grained green tan chloritic sericitic	8.0 0.0	0	10 SVN 2	Strong kfsp alt'n. Strong disseminated pyrite and pyrite in veinlets.	120515	0.028	0.066
151.00	153.04	Coarse-grained green mottled chloritic k-felspar	10.0 0.0	0	0 SVN 15 4	Contact not apparent with next unit. V.c.g. augite phenocrysts cease.	120516	0.033	0.033
153.04	155.00	Medium-grained grey-green mottled chloritic k-felspar	5.0 0.0	1	52 QVN 55 2	Note the change in magnetic susceptibility between these units.	120517	0.04	0.064
155.00	157.00		10.0 0.0	1	13 SVN 25 3	Patchy kfsp alt'n around fractures. Magnetite in fractures.	120518	0.028	0.051
157.00	159.00	Medium-grained grey-green mottled chloritic	12.0 0.0	1	21 SVN 30 3		120519	0.058	0.081
159.00	159.50		7.0 0.0	1	1 SVN 30 3		120520	0.064	0.072
159.50	161.00	Medium-grained grey homogeneous chloritic epidote	1.0 0.0	1	6 SVN 30 0	First appearance of epidote alt'n. Chloritic alt'n is exceptionally weak. Most of the pyrite occurs in veinlets.	120521	0.032	0.032
161.00	163.00		3.0 0.0	1	55 SVN 30 2	First appearance of epidote alt'n. Chloritic alt'n is exceptionally weak. Most of the pyrite occurs in veinlets. Patchy epidote alt'n and majority of pyrite veinlets associated with minor amounts of m.g. magnetite.	120522	0.035	0.076
163.00	165.00		2.0 0.0	1	18 SVN 2		120523	0.022	0.077
165.00	167.00		1.0 0.0	1	57 SVN 30 1	Strong epidote stringers around pyrite veins. Magnetite in pyrite veins and locally finely disseminated.	120524	0.025	0.028
167.00	169.00		0.5 0.0	1	6 SVN 30 0		120525	0.015	0.028
169.00	171.00		0.5 0.0	1	49 SVN 30 0		120526	0.021	0.025
171.00	173.00		0.5 0.0	1	64 SVN 30 0		120527	0.043	0.048
173.00	175.00		0.5 0.0	1	21 SVN 30 0	Epidote selvages around pyrite veinlets.	120528	0.039	0.043
175.00	177.00		10.0 0.0	1	20 QVN 25 5	Abundant pyrite in qtz veins and c.g. disseminations in host rock.	120529	0.021	0.114
177.00	179.00		1.0 0.0	0	10 QZVN 10	No visible magnetite.	120530	0.03	0.032

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
179.00	181.00	Medium-grained grey homogeneous chloritic epidote	2.0 0.1	1	22 QZVN 25 15		120531	0.058	0.048
181.00	183.00	Coarse-grained grey homogeneous chloritic epidote	1.0 0.0	0	14 ZCV 20 4	Similar rock but coarser grained. No visible magnetite.	120533	0.072	0.066
183.00	185.00	Medium-grained dark grey homogeneous chloritic epidote	2.0 0.0	1	3 ZCV 30 2	Weak kfsp selvages around some pyrite veinlets. Strong epidote.	120534	0.05	0.053
185.00	186.70		0.5 0.0	1	39 CTC 75	Sharp contact marked by colour and grain size changes.	120535	0.04	0.044
186.70	188.00		1.0 0.0	1	74 SVN 1	From here to 215.91 metres is predominantly m.g. with local intervals of more f.g. material. Chloritic alt'n very weak.	120536	0.031	0.029
188.00	190.00		2.0 0.0	1	20 SVN 30 2		120537	0.028	0.026
190.00	192.00		1.0 0.0	1	74 SVN 30 1		120538	0.022	0.028
192.00	194.00		0.5 0.0	1	22 SVN 25 0	C.g. magnetite in margins of pyrite veins.	120539	0.028	0.029
194.00	196.00		0.5 0.0	1	14 SVN 10 0		120540	0.021	0.019
196.00	198.00		1.0 0.0	1	15 SVN 30 1	Very weak, incipient, vuggy silicification.	120541	0.042	0.06
198.00	200.00		3.0 0.0	1	34 QVN 10 2	One pyrite/magnetite-rich white qtz vein sub-parallel t.c.a.	120542	0.087	0.066
200.00	202.00		3.0 0.1	1	4 SVN 10 0	One speck of cpy attached to pyrite in an infilled vug. Most pyrite is irregular patches and c.g disseminations.	120543	0.047	0.036
202.00	204.00		2.0 0.0	1	9 SVN 10 0	Rock is too hard to scratch and retains original texture but contained v.f.g. disseminated magnetite.	120544	0.027	0.02
204.00	206.00		1.0 0.0	1	46 SVN 35 0		120545	0.025	0.02
206.00	208.00		1.0 0.0	1	47 ZCV 75 2		120546	0.022	0.023
208.00	210.00		0.1 0.0	1	58 ZCV 75 1	Rock is too hard to scratch and retains original texture but contained v.f.g. disseminated magnetite. Includes a 40 cm section of flow breccia.	120547	0.024	0.021
210.00	212.00		1.0 0.0	1	45 SVN 0	Rock is too hard to scratch and retains original texture but contained v.f.g. disseminated magnetite.	120548	0.039	0.038
212.00	214.00		0.5 0.0	1	65 ZCV 70 2		120549	0.046	0.037
214.00	215.91		0.5 0.0	1	54 ZCV 70 4		120550	0.038	0.046
215.91	217.00	Coarse-grained grey-green homogeneous chloritic epidote	0.3 0.0	0	2 QZVN 70 3	Rock is very hard and chlorite is weak (i.e.: overall alteration is weak). Epidote is controlled by selvages to veins and fractures.	120551	0.063	0.054
217.00	219.00		0.5 0.0	0	4 QZVN 55 2		120552	0.055	0.053

## Hole Number: KN-02-52

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
219.00	221.00	Coarse-grained grey-green homogeneous chloritic epidote	3.0 0.0	1	18 SVN 40	1 Most pyrite occurs in veinlets. Disseminated f.g. to m.g. magnetite.	120553	0.036	0.039
221.00	223.00		5.0 0.0	1	9 SVN 4		120554	0.034	0.047
223.00	225.00		3.0 0.0	1	13 SVN 35	2	120555	0.039	0.038
225.00	227.00		2.0 0.0	1	10 SVN 35	2	120556	0.045	0.079
227.00	229.00		2.0 0.0	1	22 QZVN 5		120557	0.1	0.049
229.00	231.00		1.0 0.0	1	16 QZVN 60	1	120559	0.034	0.03
231.00	233.00		1.0 0.0	1	8 QZVN 60	2 Exceptionally strong epidote.	120560	0.033	0.048
233.00	235.00		5.0 0.0	1	5 QZVN 60	1 Abundant c.g. disseminated pyrite.	120561	0.044	0.064
235.00	235.95		2.0 0.0	1	24 SVN 1		120562	0.037	0.057
235.95	237.00	Fine-grained grey-green homogeneous chloritic epidote	0.5 0.0	1	8 QZVN 0		120563	0.029	0.016
237.00	239.00		0.5 0.0	1	6 SVN 0		120564	0.035	0.028
239.00	241.00		0.5 0.1	1	18 SVN 10	1	120565	0.033	0.037
241.00	243.00		2.0 0.0	1	76 SVN 10	1 Pyrite occurs 50% of the time as disseminated and 50% as veinlets in this sample.	120566	0.044	0.032
243.00	245.00		4.0 0.0	1	32 QZVN 25	0 Heavy c.g. disseminated pyrite.	120567	0.054	0.178
245.00	247.00		4.0 0.0	1	4 SVN 2		120568	0.03	0.046
247.00	249.00		3.0 0.0	1	6 ZCV 60	5	120569	0.027	0.04
249.00	251.00		10.0 0.0	0	1 QZVN 10	1 Abundant c.g. disseminated and irregular/discontinuous stringer pyrite.	120570	0.113	0.117
251.00	252.67		2.0 0.0	0	1 CTC 58		120571	0.028	0.039
252.67	253.27	Fine-grained grey white mottled silicic chloritic	1.0 0.0	5	78 ZCV 3	3 Semi-massive magnetite locally. Very strong silicification in fractured to brecciated flows.	120572	0.087	0.128
253.27	253.72	Fine-grained grey-green homogeneous chloritic	0.2 0.0	1	3 QVN 45	0	120573	0.097	0.161
253.72	254.02	Fine-grained grey white mottled silicic chloritic	0.2 0.0	1	8 ZCV 5	5 Semi-massive magnetite locally. Very strong silicification in fractured to brecciated flows.	120574	0.164	0.248
254.02	254.60	Fine-grained grey-green homogeneous chloritic	0.2 0.0	1	1 QVN 30	0	120575	0.041	0.035
254.60	255.90	Coarse-grained grey white in-situ brecciated silicic chloritic	1.0 0.0	3	45 MVN 3	3 Semi-massive magnetite locally. Very strong silicification in fractured to brecciated flows.	120576	0.027	0.056

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
255.90	256.68	Fine-grained grey-green homogeneous chloritic	0.5 0.0	1	0 QVN 15 0		120577	0.072	0.049
256.68	258.17	Fine-grained grey white mottled silicic	4.0 0.0	1	1 ZCV 5	Extremely f.g. disseminated pyrite. Very strong silicification. The first 30 cm of this interval contains all of the magnetite.	120578	0.012	0.043
258.17	258.82	Coarse-grained grey white in-situ brecciated silicic	0.2 0.0	1	37 ZCV 15	Abundant random zeolite/calcite veins infilling fractures in strongly silicified zone.	120579	0.04	0.358
258.82	259.68	Fine-grained grey-green homogeneous chloritic	5.0 0.0	1	1 SVN 25 0	Heavily disseminated c.g. pyrite. Thin magnetite veinlets at the beginning of this interval.	120580	0.056	0.063
259.68	259.98	Coarse-grained grey white in-situ brecciated silicic	1.0 0.0	1	19 ZCV 15	Abundant, randomly oriented zeolite/calcite veins infilling fractures.	120581	0.032	0.046
259.98	262.00	Fine-grained dark grey homogeneous chloritic epidote	4.0 0.0	1	15 SVN 35 2		120582	0.03	0.023
262.00	264.00		4.0 0.0	1	18 SVN 35 2		120583	0.04	0.038
264.00	266.00		2.0 0.0	1	13 SVN 35 0		120585	0.025	0.027
266.00	268.00		3.0 0.0	1	26 SVN 25 2	Very strong epidote alt'n. C.g. magnetite in pyrite veins and m.g. disseminated magnetite.	120586	0.052	0.027
268.00	270.00		5.0 0.0	1	9 SVN 20 3	Trace epidote, weak chlorite. One 5 cm patch of salmon coloured kfsp alt'n.	120587	0.093	0.189
270.00	272.00		1.0 0.0	1	35 ZCV 55 3	Trace epidote, weak chlorite.	120588	0.043	0.048
272.00	274.00		0.5 0.0	2	67 SVN 20 0		120589	0.025	0.024
274.00	274.95		2.0 0.0	0	4 SVN 25 0	Trace epidote, weak chlorite. Possible contact @ 30 degrees t.c.a.	120590	0.029	0.027
274.95	276.00	Coarse-grained dark grey chloritic epidote	4.0 0.0	1	8 SVN 25 2	Weakly augite porphyritic in a c.g. matrix.	120591	0.071	0.071
276.00	278.00		3.0 0.1	1	4 QVN 30 2	Weakly augite porphyritic in a c.g. matrix. One speck of chalcopyrite.	120592	0.071	0.059
278.00	279.41		7.0 0.0	2	20 CTC 35		120593	0.086	0.054
279.41	281.00	Fine-grained dark grey homogeneous chloritic epidote	0.3 0.0	1	12 QVN 35 0		120594	0.055	0.022
281.00	283.00		3.0 0.0	1	24 ZCV 85 2		120595	0.091	0.065
283.00	285.00		2.0 0.0	1	4 ZCV 2		120596	0.049	0.052
285.00	287.00		1.0 0.0	1	22 ZCV 2		120597	0.03	0.019
287.00	289.00		1.0 0.0	1	31 QVN 35 0		120598	0.083	0.036

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
289.00	291.00	Fine-grained dark grey homogeneous chloritic epidote	1.0 0.0	1	15 QVN 25 0		120599	0.033	0.038
291.00	291.60		2.0 0.0	2	54 ZCV 55 2		120600	0.109	0.121
291.60	292.58		1.0 0.0	1	8 SVN 1	Weak silicification.	120601	0.031	0.033
292.58	293.38	Coarse-grained light green brecciated chloritic epidote	2.0 0.0	5	141 QZVN 35 10	Several clots of massive magnetite in silicified and highly epidotized (30% epidote) horizon.	120602	0.034	0.046
293.38	295.00	Fine-grained dark grey homogeneous chloritic epidote	0.3 0.0	1	45 QZVN 25 0	V.c.g. clots of magnetite sporadically distributed.	120603	0.014	0.024
295.00	297.00		1.0 0.0	2	30 ZCV 2		120604	0.058	0.046
297.00	299.00		0.5 0.0	1	34 QZVN 40 0		120605	0.04	0.043
299.00	301.00		2.0 0.0	1	5 SVN 25 1		120606	0.08	0.047
301.00	303.00		2.0 0.0	1	12 SVN 25 1		120607	0.057	0.037
303.00	305.00		3.0 0.0	1	7 SVN 25 2		120608	0.074	0.076
305.00	307.00	Fine-grained grey-green homogeneous chloritic epidote	1.0 0.0	1	15 SVN 1	Includes 4 cm wide banded calcite vein.	120609	0.068	0.029
307.00	309.00		4.0 0.0	1	2 SVN 30 2		120611	0.03	0.028
309.00	311.00		3.0 0.0	1	1 SVN 15 2		120612	0.034	0.146
311.00	312.15		2.0 0.0	1	29 SVN 15 1		120613	0.016	0.011
312.15	313.03	Coarse-grained light green in-situ brecciated chloritic epidote	1.0 0.0	1	5 ZCV 15	Strongly epidotized insitu breccia infilled with zeolite/carbonate.	120614	0.026	0.022
313.03	314.85	Fine-grained grey-green homogeneous chloritic epidote	3.0 0.0	0	1 ZCV 5		120615	0.051	0.036
314.85	315.35	Fine-grained light green mottled chloritic epidote	1.0 0.0	2	48 ZCV 15	Patchy sericite/silica alt'n. Irregular, thin magnetite stringers. Randomly oriented zeolite/calcite veins.	120616	0.224	0.237
315.35	317.00	Coarse-grained dark grey chloritic epidote	5.0 0.0	1	15 ZCV 3	Coarsely augite porphyritic basalt.	120617	0.072	0.065
317.00	317.70		2.0 0.0	1	24 ZCV 2	Coarsely augite porphyritic basalt, with contact gradational over 20-30 cm.	120618	0.028	0.035
<b>317.7</b>	<b>392.86</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
317.70	319.00	Fine-grained grey-green homogeneous chloritic epidote	1.0 0.0	1	8 QZVN 70 2	Local chlorite lined vugs.	120619	0.021	0.022
319.00	321.00		2.0 0.0	1	13 QZVN 70 2	Banded qtz/zeolite/calcite veins. Local chlorite lined vugs.	120620	0.043	0.042
321.00	323.00		2.0 0.0	2	55 ZCV 70 2	C.g. to irregular patches of magnetite.	120621	0.029	0.027



**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
323.00	325.00	Fine-grained grey-green homogeneous chloritic epidote	5.0 0.0	2	98 SVN 0 0	Fine grained to aphanitic intermediate flows. C.g. magnetite in irregular patches and in pyrite veins.	120622	0.029	0.028
325.00	327.00		3.0 0.0	2	4 SVN 0 0		120623	0.089	0.056
327.00	329.00		2.0 0.1	2	39 ZCV 30 0	One speck of chalcopyrite in magnetite lined fracture veinlet.	120624	0.04	0.034
329.00	331.00		2.0 0.0	2	7 SVN 0 0		120625	0.064	0.048
331.00	333.00		1.0 0.0	2	34 SVN 10 0		120626	0.056	0.061
333.00	335.00		2.0 0.0	2	11 QVN 15 0	Qtz/mag veinlets with trace to abundant pyrite.	120627	0.017	0.018
335.00	337.00		2.0 0.0	3	9 QVN 15 0		120628	0.038	0.036
337.00	339.00		3.0 0.0	2	45 QVN 15 0	Very thin qtz/mag veinlets.	120629	0.024	0.025
339.00	341.00		2.0 0.0	1	8 QVN 15 0		120630	0.062	0.073
341.00	343.00		1.0 0.0	1	2 QVN 10 2		120631	0.115	0.126
343.00	345.00		0.5 0.0	1	8 QVN 5 2		120632	0.082	0.12
345.00	347.00		1.0 0.1	2	5 ZCV 2	15 to 20% epidote as selvages to fractures.	120633	0.064	0.08
347.00	349.00		1.0 0.0	1	7 ZCV 5		120634	0.063	0.098
349.00	351.00		1.0 0.0	1	26 ZCV 2	Less epidote. Very irregular distribution of c.g. magnetite.	120635	0.034	0.035
351.00	353.00		0.5 0.0	2	4 QVN 2	Irregular gash-filled qtz.	120637	0.047	0.038
353.00	355.00		0.5 0.0	1	8 QVN 2		120638	0.069	0.1
355.00	357.00	Fine-grained grey homogeneous chloritic epidote	4.0 0.0	1	25 QVN 2		120639	0.032	0.039
357.00	359.00	Fine-grained grey-green homogeneous chloritic epidote	1.0 0.0	1	37 ZCV 0 0	15 to 20% epidote as selvages to fractures.	120640	0.097	0.059
359.00	361.00		0.5 0.0	1	35 ZCV 0	Much weaker epidote all'n.	120641	0.038	0.051
361.00	363.00		0.5 0.0	1	21 QZCV 45 2		120642	0.031	0.019
363.00	365.00		0.5 0.0	1	16 QZCV 1		120643	0.039	0.032
365.00	367.00		0.2 0.0	1	7 QZCV 40 3		120644	0.06	0.168
367.00	369.00		0.5 0.0	1	22 ZCV 1		120645	0.01	0.014
369.00	371.00		0.5 0.0	1	21 ZCV 10		120646	0.059	0.143
371.00	373.00		1.0 0.0	1	47 ZCV 0		120647	0.054	0.057
373.00	375.00		1.0 0.0	1	44 QZCV 1	Moderate to strong, but patchy, epidote all'n.	120648	0.012	0.014
375.00	377.00		1.0 0.0	1	14 QZCV 0		120649	0.035	0.047

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
377.00	379.00	Fine-grained grey-green homogeneous chloritic epidote	0.5 0.0	1	64 ZCV 25 1		120650	0.021	0.029
379.00	381.00		0.5 0.0	1	48 ZCV 25 0	May contain more magnetite: v.f.g. and hard to see.	120651	0.038	0.058
381.00	381.83	Fine-grained dark grey homogeneous chloritic epidote	3.0 0.0	0	1 CTC 65	M.g. evenly disseminated pyrite. Very weak silicification in lower 15 cm of sample.	120652	0.034	0.062
381.83	382.98	Coarse-grained light grey brecciated silicic sericitic	1.0 0.0	0	1 QZCV 10	Irregular zeolite infill. Lower contact indistinct.	120653	0.045	0.084
382.98	385.00	Fine-grained grey-green homogeneous chloritic	2.0 0.0	0	5 QZCV 45 3	Epidote is absent.	120654	0.061	0.083
385.00	387.00		2.0 0.0	0	2 QZCV 35 1		120655	0.076	0.1
387.00	387.46		4.0 0.0	0	0 QZCV 30 5		120656	0.061	0.078
387.46	387.88	Medium-grained grey tan mottled silicic	0.5 0.0	0	1 QZVN 25 10	Highly silicified zone with f.g. kfsp flooding.	120657	0.089	0.119
387.88	389.00	Fine-grained grey-green homogeneous chloritic	5.0 0.0	0	0 QZVN 15 3	Note that chlorite alt'n is picking up from predominantly very weak (as seen prior to 383.00 metres) to weak to moderate (following 383.00 metres). One narrow silicified zone.	120658	0.064	0.084
389.00	391.00		5.0 0.0	0	6 ZCV 25 0		120659	0.096	0.15
391.00	392.00		7.0 0.0	0	0 QZVN 0		120660	0.081	0.077
392.00	392.86	Medium-grained grey tan mottled silicic	1.0 0.1	1	4 ZCV 5		120661	0.194	0.181
392.86	501	<b>BASALT FLOW</b>							
392.86	394.00	Medium-grained dark green grey chloritic	3.0 0.0	1	2 ZCV 0	Augite porphyritic basalt. Moderate chlorite alt'n. One narrow silicified zone as above.	120663	0.039	0.05
394.00	396.00		2.0 0.0	1	4 ZCV 40 2		120664	0.036	0.038
396.00	398.00		10.0 0.0	2	21 QZVN 5 3	Massive pyrite in selvages of qtz veins.	120665	0.08	0.099
398.00	400.00		5.0 0.0	2	59 QZVN 15 0	Massive pyrite in selvages of qtz veins. Augite porphyritic to augite phytic.	120666	0.038	0.064
400.00	402.13		2.0 0.0	1	8 QZVN 15 1	Multiple very thin pyrite veins (1-2 mm).	120667	0.05	0.049
402.13	402.73		15.0 0.0	0	1 ZCV 5	V.c.g. pyrite in qtz/calcite flooded zone. Minor kfsp alt'n.	120668	0.074	0.171
402.73	404.00		3.0 0.0	1	5 ZCV 3		120669	0.044	0.045
404.00	406.00		3.0 0.0	1	19 ZCV 1		120670	0.047	0.043
406.00	408.00		2.0 0.0	1	16 ZCV 25 0	Very minor, patchy kfsp alt'n.	120671	0.027	0.025
408.00	410.00		2.0 0.0	2	44 SVN 30 1		120672	0.063	0.061

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
410.00	412.00	Medium-grained dark green grey chloritic	1.0 0.0	2 33	SVN 15 0	Very minor, patchy kfsp alt'n.	120673	0.035	0.031
412.00	414.00		1.0 0.3	1 6	QZVN 0	One 2mm wide massive chalcopyrite veinlet.	120674	0.034	0.027
414.00	416.00	Medium-grained dark green chloritic	7.0 0.1	1 22	ZCV 0 1	Two specks of chalcopyrite. C.g. augite phenocrysts in a fine grained matrix.	120675	0.055	0.051
416.00	418.00	Medium-grained green-grey chloritic	1.0 0.0	1 12	ZCV 0 1		120676	0.032	0.028
418.00	420.00		1.0 0.0	1 22	ZCV 2		120677	0.043	0.041
420.00	422.00	Coarse-grained dark grey chloritic	1.0 0.0	1 12	ZCV 45 0	Very weak chlorite alt'n. Rock is very fresh-looking. Comprised of augite phenocrysts (10%) in a matrix of plagioclase and augite. Individual crystals are easily discernable. Individual augite crystals are pristine. Chlorite is confined mostly to slips, fractures and vein selvages. Magnetite occurs as occasional, irregular patches of massive material.	120678	0.021	0.024
422.00	423.65		2.0 0.0	1 5	ZCV 80 0		120679	0.043	0.04
423.65	425.30	Coarse-grained light green vuggy chloritic	2.0 0.0	1 6	ZCV 40		120680	0.041	0.067
425.30	427.00	Coarse-grained dark grey chloritic	3.0 0.0	1 9	ZCV 15 3		120681	0.05	0.048
427.00	429.00		1.0 0.0	1 54	ZCV 65 2		120682	0.028	0.027
429.00	431.00		1.0 0.0	1 40	ZCV 35 1		120683	0.036	0.041
431.00	433.00		3.0 0.0	1 28	SVN 0	Contains several thin massive pyrite veinlets with magnetite in contact selvages.	120684	0.072	0.075
433.00	435.00		2.0 0.0	1 14	SVN 20 0	Very weak chlorite alt'n. Rock is very fresh-looking. Comprised of augite phenocrysts (10%) in a matrix of plagioclase and augite. Individual crystals are easily discernable. Individual augite crystals are pristine. Chlorite is confined mostly to slips, fractures and vein selvages. Magnetite occurs as occasional, irregular patches of massive material.	120685	0.043	0.051
435.00	437.00		2.0 0.0	1 11	SVN 20 0		120686	0.091	0.089
437.00	439.00		0.5 0.0	2 44	QZVN 0		120687	0.035	0.025
439.00	441.00		0.3 0.0	2 88	QZVN 0		120689	0.018	0.015
441.00	443.00		1.0 0.0	1 22	QZVN 0		120690	0.038	0.021
443.00	445.00		2.0 0.0	1 1	ZCV 2		120691	0.061	0.047
445.00	447.00		0.3 0.0	1 6	ZCV 5		120692	0.025	0.018

## Hole Number: KN-02-52

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
447.00	449.00	Coarse-grained dark grey chloritic	2.0 0.0	1 44	SVN 2	Randomly oriented pyrite filled fractures.	120693	0.032	0.028
449.00	451.00		2.0 0.0	1 10	SVN 2	Very coarsely augite porphyritic (up to 3 mm).	120694	0.035	0.025
451.00	453.00		0.5 0.0	1 2	ZCV 5 2	Very coarsely augite porphyritic (up to 3 mm), with patchy, pale, tan/red kfsp overprint.	120695	0.034	0.045
453.00	455.00		1.0 0.0	1 18	ZCV 60 0	Very coarsely augite porphyritic (up to 3 mm).	120696	0.039	0.038
455.00	457.00		0.5 0.0	1 81	ZCV 70 1		120697	0.043	0.057
457.00	459.00		2.0 0.0	1 12	ZCV 35 15	Very strong kfsp overprint.	120698	0.098	0.083
459.00	461.00		1.0 0.0	1 8	QZVN 3	Strong but patchy kfsp overprint.	120699	0.063	0.046
461.00	463.00		2.0 0.0	1 2	ZCV 45 7	Disseminated and stringer pyrite. Very thin zeolite fracture fill veinlets. Kfsp alt'n near some veinlets.	120700	0.056	0.054
463.00	465.00		2.0 0.0	1 19	ZCV 5		120701	0.039	0.036
465.00	467.00		2.0 0.0	1 24	ZCV 5		120702	0.027	0.037
467.00	469.00		5.0 0.0	2 41	QCVN 25 15	Massive magnetite stringers near end of sample.	120703	0.064	0.116
469.00	471.00		0.5 0.0	1 30	QZVN 25 1		120704	0.036	0.033
471.00	473.00	Coarse-grained grey	0.5 0.0	1 10	QZVN 25 1	Continuing from here, the rock is essentially unaltered except for traces around fractures and veinlets. It is dense, crystalline, and less augite porphyritic, but is still augite phyrlic. Chlorite appears only in fractures and slips.	120705	0.039	0.044
473.00	475.00		1.0 0.0	1 10	QZVN 25 1		120706	0.032	0.023
475.00	477.00		3.0 0.0	1 1	QZVN 25 2		120707	0.026	0.02
477.00	479.00		5.0 0.0	1 13	QZVN 25 0		120708	0.064	0.04
479.00	481.00		0.5 0.0	1 29	QZVN 25 0		120709	0.035	0.032
481.00	483.00		1.0 0.1	1 54	QVN 18 3	Two minute specks of chalcopyrite in two separate fracture-controlled pyrite-rich veinlets. Abundant molybdenite in white qtz veinlets.	120710	0.052	0.058
483.00	485.00		2.0 0.0	1 16	QVN 35 0		120711	0.04	0.039
485.00	487.00		1.0 0.0	1 13	QVN 20 0	Two c.g. specks of chalcopyrite in qtz vein.	120712	0.046	0.065
487.00	489.00		5.0 0.1	1 15	QVN 0 5		120713	0.149	0.259
489.00	491.00	Coarse-grained grey homogeneous	1.0 0.0	1 9	QVN 20 0		120715	0.05	0.033
491.00	493.00		2.0 0.0	1 7	QVN 0 0		120716	0.046	0.027
493.00	495.00		1.0 0.2	1 6	QVN 0 3	1 x 1 cm bleb of massive chalcopyrite in qtz vein.	120717	0.069	0.047

## Hole Number: KN-02-52

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
495.00	497.00	Fine-grained grey homogeneous	2.0 0.0	1 12	QVN 35 0	Gradational contact. Similar flows, but getting much finer grained, with only occasional phenocrysts.	120718	0.06	0.041
497.00	499.00		1.0 0.0	1 2	QVN 15 0		120719	0.034	0.018
499.00	501.00		3.0 0.0	1 2	QVN 15 3		120720	0.053	0.023
501	501.42	<b>BLADED FELDSPAR PORPHYRY DYKE</b>							
501.00	501.42	Coarse-grained grey	3.0 0.0	1 12	QVN 35 0		120721	0.051	0.018
501.42	547.02	<b>BASALT FLOW</b>							
501.42	502.60	Coarse-grained grey	0.0 0.0	0 8	CTC 65	Contact is chilled: probably a dyke. Contains cream coloured and black bladed phenocrysts. The latter may be plagioclase replaced by hornblende.	120722	0.066	0.037
502.60	503.27	Fine-grained grey vuggy	0.5 0.0	1 19	ZCV 25	Silica/zeolite zone. Vuggy cavities lined with euhedral crystals of what looks like heulandite.	120723	0.138	0.119
503.27	505.00	Fine-grained grey homogeneous	1.0 0.2	1 7	QVN 0		120724	0.054	0.041
505.00	507.00		1.0 0.0	1 12	QVN 25 0		120725	0.045	0.034
507.00	509.00		1.0 0.0	1 13	QVN 25 0		120726	0.043	0.032
509.00	511.00		1.0 0.0	1 33	QVN 25 0		120727	0.024	0.038
511.00	513.00	Medium-grained grey	0.5 0.0	1 15	QVN 25 0		120728	0.025	0.045
513.00	514.85	Medium-grained green-grey	0.5 0.0	1 23	QVN 25 0	Very weak chlorite- increasing down hole.	120729	0.035	0.047
514.85	516.85	Fine-grained green-grey mottled	0.5 0.0	1 19	ZCV 10		120730	0.055	0.077
516.85	518.85		0.1 0.0	0 4	ZCV 10	Some lost core.	120731	0.015	0.024
518.85	519.37		0.1 0.0	0 3	ZCV 10		120732	0.03	0.036
519.37	521.00	Fine-grained green-grey homogeneous	1.0 0.0	1 12	ZCV 70 2		120733	0.04	0.082
521.00	523.00		1.0 0.0	1 13	QZVN 45 1		120734	0.031	0.027
523.00	525.00		0.5 0.0	1 19	QZVN 45 1		120735	0.017	0.019
525.00	526.85		0.5 0.0	1 18	QZVN 35 0		120736	0.023	0.017
526.85	527.33		0.5 0.0	1 5	QZVN 35 1		120737	0.027	0.021
527.33	529.21	Fine-grained tan homogeneous	1.0 0.0	1 5	ZCV 10	Abundant fractures filled with zeolite/calcite, chlorite lined vugs, and weak, probably kfsp, wash.	120738	0.273	0.086
529.21	531.00	Fine-grained grey-green homogeneous	1.0 0.0	1 1	ZCV 35 2		120739	0.055	0.031
531.00	533.00		1.0 0.0	1 9	ZCV 1		120741	0.039	0.025

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
533.00	535.00	Fine-grained grey-green homogeneous	1.0 0.0	0	2 QZVN	5	120742	0.061	0.046
535.00	537.00	Fine-grained green tan homogeneous	1.0 0.0	0	3 ZCV	2	120743	0.068	0.07
537.00	539.00	Fine-grained grey-green homogeneous	0.5 0.0	1	9 ZCV	0	120744	0.024	0.035
539.00	540.23		0.5 0.0	1	28 ZCV	2	120745	0.014	0.016
540.23	542.00	Medium-grained grey-green chloritic	2.0 0.0	1	10 ZCV	2	120746	0.046	0.043
542.00	544.00		3.0 0.0	1	15 ZCV	2	120747	0.06	0.117
544.00	546.00		3.0 0.0	1	4 ZCV	3	120748	0.06	0.056
546.00	547.02		3.0 0.0	1	16 ZCV	2	120749	0.039	0.024
<b>547.02</b>	<b>548.25</b>	<b>MONZONITE DYKE</b>							
547.02	548.25	Coarse-grained green tan brecciated chloritic	0.5 0.0	0	1 QZVN	15	120750	0.029	0.043
<b>548.25</b>	<b>576.67</b>	<b>BASALT FLOW</b>							
548.25	550.00	Medium-grained grey chloritic	0.5 0.0	0	7 QZVN	3	121001	0.031	0.026
550.00	552.00		0.5 0.2	0	5 ZCV	2	121002	0.043	0.033
552.00	554.00		1.0 0.0	0	4 ZCV	2	121003	0.043	0.024
554.00	556.00		1.0 0.0	0	11 ZCV	1	121004	0.053	0.025
556.00	558.00		1.0 0.0	1	12 ZCV	1	121005	0.051	0.027
558.00	559.30		0.5 0.0	0	7 ZCV	35 3	121006	0.044	0.026
559.30	561.30	Fine-grained grey homogeneous chloritic	0.5 0.0	0	16 ZCV	0	121007	0.033	0.026
561.30	563.23		1.0 0.0	0	12 ZCV	1	121008	0.04	0.053
563.23	565.00	Coarse-grained grey homogeneous chloritic	0.5 0.0	0	23 ZCV	80 2	121009	0.035	0.025
565.00	567.00		0.5 0.0	0	25 ZCV	80 0	121010	0.04	0.025
567.00	568.12		0.5 0.0	0	18 ZCV	0	121011	0.021	0.015
568.12	570.00	Fine-grained green-grey homogeneous chloritic	0.5 0.0	0	14 ZCV	0	121012	0.029	0.018
570.00	572.00		0.5 0.0	0	25 ZCV	65 2	121013	0.026	0.023

**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
572.00	574.00	Fine-grained green-grey homogeneous chloritic	0.5 0.0	0	17 ZCV 40 0		121014	0.034	0.025
574.00	576.00		0.5 0.0	0	6 ZCV 65 1		121015	0.023	0.017
576.00	576.67		0.5 0.0	0	12 CTC 25		121017	0.135	0.092
576.67	577.23	<b>MONZONITE DYKE</b>							
576.67	577.23	Medium-grained light grey chloritic	0.0 0.0	0	7 CTC 40	M.g. to f.g. crowded feldspar porphyry. Very similar to sample 120750 but without appreciable alt'n.	121018	0.127	0.118
577.23	584.3	<b>BASALT FLOW</b>							
577.23	579.00	Fine-grained green-grey homogeneous chloritic	1.0 0.0	0	18 ZCV 40 0		121019	0.063	0.04
579.00	581.00		1.0 0.1	0	13 QZVN 30 1		121020	0.039	0.022
581.00	583.00		2.0 0.0	0	4 ZCV 30 1		121021	0.088	0.056
583.00	584.30		2.0 0.0	0	26 ZCV 20 0		121022	0.103	0.094
584.3	585.55	<b>MONZONITE DYKE</b>							
584.30	585.55	Medium-grained light grey chloritic	0.2 0.0	0	1 QZVN 0 40	3 cm wide vein running parallel t.c.a. for length of sample.	121023	0.035	0.04
585.55	641.32	<b>BASALT FLOW</b>							
585.55	587.55	Fine-grained green-grey homogeneous chloritic sericitic	0.5 0.0	0	23 ZCV 2		121024	0.055	0.037
587.55	589.10	Fine-grained green-grey homogeneous chloritic	0.5 0.0	0	6 ZCV 70 10		121025	0.017	0.012
589.10	591.00	Coarse-grained green vuggy chloritic sericitic	0.2 0.0	0	8 QZVN 25	V.c.g. augite porphyritic basalt. Contains up to 30% augite. Spider-web of qtz/zeo/calcite and zeo/calcite veins.	121026	0.154	0.328
591.00	593.00		0.2 0.0	0	2 QZVN 0 25	Banded qtz/zeo/calcite veins running parallel t.c.a. Chlorite/sericite filled vugs between thin spider web veinlets.	121027	0.038	0.032
593.00	594.60	Coarse-grained green chloritic sericitic	0.2 0.0	0	1 QZVN 15		121028	0.035	0.032
594.60	596.00	Coarse-grained grey-green chloritic	0.0 0.0	0	14 ZCV 45 2		121029	0.046	0.046
596.00	597.00		0.5 0.0	0	14 ZCV 10		121030	0.029	0.037
597.00	599.00		0.1 0.0	0	11 ZCV 75 8	V.c.g. augite phyric to augite porphyritic.	121031	0.012	0.008
599.00	601.00		0.1 0.0	0	3 ZCV 1		121032	0.026	0.011
601.00	603.00		0.5 0.0	0	2 ZCV 2		121033	0.017	0.01

## Hole Number: KN-02-52

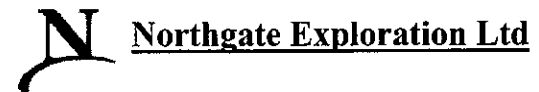
From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
603.00	605.00	Fine-grained grey-green mottled chloritic	0.5	0.0	0	0 QZVN 5 50	Contact with above obscured by zeo/calcite veining. Zeo/calcite vein running parallel t.c.a. contains ~ 3% molybdenite.	121034	0.019	0.024
605.00	607.00		0.5	0.0	0	1 QZVN 10 25		121035	0.047	0.033
607.00	609.00	Coarse-grained grey-green chloritic	0.5	0.0	0	9 QZVN 3	Contact obscured by qtz/zeo veining.	121036	0.095	0.068
609.00	610.17		0.5	0.0	0	4 QZVN 2		121037	0.045	0.05
610.17	612.00	Coarse-grained grey-green homogeneous chloritic	1.0	0.0	0	7 QZVN 0	Includes vuggy vein of transparent euhedral zeolite, probably heulandite.	121038	0.044	0.026
612.00	613.38		3.0	0.0	0	9 QZVN 0		121039	0.065	0.041
613.38	614.78	Coarse-grained light grey brecciated silicic chloritic	3.0	0.0	0	1 QZVN 0 20	Silicified and hematized, highly brecciated basalt. Qtz/zeo veins sub-parallel t.c.a.	121040	0.119	0.059
614.78	615.69		3.0	0.0	0	8 QZVN 0 10		121041	0.069	0.054
615.69	617.00	Fine-grained green-grey homogeneous chloritic	3.0	0.0	0	10 QVN 0	Scattered, irregular, thin (<2 mm) bluish gray qtz veins.	121043	0.048	0.034
617.00	619.00		7.0	0.0	0	22 QVN 0	Abundant semi-massive stringers and c.g. disseminated pyrite. No visible magnetite. Bluish gray qtz veins.	121044	0.093	0.083
619.00	621.00	Fine-grained dark green grey homogeneous chloritic	5.0	0.0	0	27 QZVN 2		121045	0.147	0.102
621.00	623.00		5.0	0.1	0	21 QZVN 1		121046	0.202	0.143
623.00	625.00		5.0	0.1	0	8 QZVN 5 3	Abundant semi-massive stringers and c.g. disseminated pyrite. No visible magnetite. Bluish gray qtz veins. Narrow zones of magnetite. C.g. crowded plagioclase.	121047	0.122	0.061
625.00	627.00		5.0	0.0	0	4 QVN 0		121048	0.121	0.076
627.00	627.46		5.0	0.0	0	7 ZCV 0		121049	0.153	0.087
627.46	629.46	Fine-grained green vuggy chloritic	0.5	0.0	0	0 ZCV 30	Highly broken zone of vuggy zeo/calcite veins.	121050	0.062	0.037
629.46	630.02		0.5	0.0	0	1 ZCV 15		121051	0.032	0.025
630.02	632.00	Medium-grained grey homogeneous	2.0	0.0	0	8 QVN 35 0	Very fresh-looking plagioclase-phyric basalt. Trace chlorite on fractures and near veinlet contacts.	121052	0.073	0.046
632.00	634.00		0.5	0.0	0	0 QVN 35 0		121053	0.067	0.08
634.00	636.00		0.1	0.0	0	0 QVN 35 0		121054	0.048	0.059
636.00	638.00		5.0	0.0	0	0 ZCV 35 5		121055	0.139	0.172
638.00	640.00		5.0	0.0	0	5 ZCV 35 3		121056	0.096	0.165
640.00	641.32		2.0	0.0	2	20 ZCV 35 2	F.g. magnetite in fracture controlled stringers.	121057	0.031	0.053



**Hole Number: KN-02-52**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
641.32	641.85	<b>BLADED FELDSPAR PORPHYRY DYKE</b>							
641.32	641.85	Medium-grained grey	0.0	0.0	0	5 ZCV 35 10	121058	0.044	0.053
641.85	660.5	<b>BASALT FLOW</b>							
641.85	643.00	Medium-grained grey homogeneous chloritic	2.0	0.0	0	12 ZCV 40 4	121059	0.049	0.047
643.00	645.00		2.0	0.0	1	22 ZCV 20 15	121060	0.093	0.066
645.00	647.00		3.0	0.0	1	1 ZCV 10 25	121061	0.105	0.125
647.00	649.00		3.0	0.0	0	10 ZCV 45 5	121062	0.074	0.097
649.00	651.00		3.0	0.0	1	29 ZCV 25 3	121063	0.102	0.226
651.00	653.00		3.0	0.0	3	80 ZCV 25 3	121064	0.063	0.799
653.00	655.00		3.0	0.0	4	69 ZCV 25 2	121065	0.082	0.332
655.00	657.00	Fine-grained grey homogeneous chloritic sericitic	3.0	0.0	1	10 ZCV 10	121066	0.057	0.062
657.00	659.00	Fine-grained grey homogeneous chloritic	3.0	0.0	7	220 ZCV 0	121067	0.077	0.081
659.00	660.50		3.0	0.0	7	83 ZCV 0	121069	0.064	0.107
660.5		EOH							

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-53**

<b>Northing:</b> 15115.1	<b>Total Depth:</b> 15.24m
<b>Easting:</b> 8538.42	<b>Azimuth:</b> 180°
<b>Elevation:</b> 1809.6	<b>Dip:</b> -80°

**Geologist:** E.Ramsay  
**Logged Date:** 10/9/2002

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
15 m	0 °	-90 °	No Survey - aband

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-53**

From (m)	To (m)	Rock Type	Comments
0	15.24	BASALT FLOW	hole abandoned; no samples taken; typical msv Takla vol'c w/ oxidized fx's

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-53**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	15.24	<b>BASALT FLOW</b>							
0.00	15.24	Fine-grained dark grey porphyritic	2.0	4		hole abandoned; no samples taken; typical msv Takla vol'c w/ oxidized fx's	53	-2	-2
15.24 EOH									

# Kemess North 2002 - Diamond Drill Log



Hole Number: *KN-02-54*

Northing: 15915.3	Total Depth: 557.01m
Easting: 10162.4	Azimuth: 180°
Elevation: 1718.7	Dip: -55°

Geologist: J.Mazvihwa
Logged Date: 10/22/200

Survey Depth	Azimuth	Dip	Comments:
100 m	211 °	-53 °	
191 m	174 °	-57 °	
283 m	176 °	-60 °	
374 m	174 °	-59 °	
465 m	181 °	-58 °	
556 m	188 °	-58 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-54**

From (m)	To (m)	Rock Type	Comments
0	14.65	CASING	Overburden; 50' HW casing 1.2m recovered to first block.
14.65	227.69	ANDESITE FLOW	Chlorite, intermediate andesite flow, weakly oxidized on vein margins and joint planes. Local vuggy dissolution textures.
227.69	228.72	ANDESITE	Gypsum-selenite veins locally associated with mt stringers.
228.72	371	ANDESITE FLOW	Zeolite associated with gypsum veining.
371	377	BASALT FLOW	Augite phyric section continues.
377	379	ANDESITE FLOW	Anhydrite-gypsum veining present.
379	381	BASALT FLOW	
381	440	ANDESITE FLOW	
440	490	BASALT FLOW	
490	503.51	ANDESITE FLOW	
503.51	556.87	BASALT FLOW	

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	14.65	<b>CASING</b>							
0.00	14.65					Overburden; 50' HW casing 1.2m recovered to first block.	54B	0	0
14.65	227.69	<b>ANDESITE FLOW</b>							
14.65	15.85	Fine-medium-grained green brown chloritic oxidized		1	63 QZVN 3 10	Chlorite, intermediate andesite flow, weakly oxidized on vein margins and joint planes. Local vuggy dissolution textures.	120149	0	0
15.85	17.37			1	12 QZVN 80 10	Broken Zone	120150	0	0
17.37	18.90		1.0		26 QZVN 20 7	Dark green mafic phenocrysts in flow; augite phyrlic; disseminated pyrite associated with veining.	120151	0	0
18.90	20.42		1.0		20 QZVN 90 7	Rare pyrite stringers.	120152	0	0
20.42	21.95	Fine-medium-grained green brown chloritic	1.0		21 QZVN 90 7	Oxidised joint planes.	120153	0	0
21.95	23.47		1.0	1	52 QZVN 90 5	Rare pyrite stringers.	120154	0	0
23.47	24.99		1.0	1	90 QZVN 80 7	Disseminated in flow.	120155	0	0
24.99	26.52		1.0	1	8 QZVN 90 7		120157	0	0
26.52	28.04		1.0	1	13 QZVN 80 5	Oxidised joint planes.	120158	0	0
28.04	29.57		0.5	1	15 QZVN 70 7	Broken section.	120159	0	0
29.57	31.09		0.5	1	1 QZVN 80 10	30.5m - 0.5m qtz vein with minor pyrite stringers.	120160	0	0
31.09	37.19		0.5	1	6 QVN 90 5	High core loss section between 31.0 and 76.8m.	120161	0	0
37.19	40.24		0.5	1	14 QVN 70 5		120162	0	0
40.24	42.38		1.0	1	30 QVN 80 5		120163	0	0
42.38	47.85		1.0	1	15 QVN 90 5		120164	0	0
47.85	52.43	Fine-medium-grained medium green chloritic	1.0		0 QVN	Broken, fault zone to 110.34m	120165	0	0
52.43	60.05		3.0		0 QVN		120166	0	0
60.05	66.10		2.0		0 QMVN	Qtz rich silicified zone, moly in selvage of joint surfaces between 64.6 and 66.1m.	120167	0	0
66.10	81.38		1.0		0 QVN	Porphyritic monzonite fragment around 79.86 - 82.9m	120168	0	0

**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
81.38	84.43	Fine-medium-grained medium green chloritic	2.0	0	QVN		120169	0	0	
84.43	87.48		2.0	0	QVN		120170	0	0	
87.48	90.53		2.0	0	QVN	Augite phyric mafic unit....local crackle brecciation.	120171	0	0	
90.53	93.57		2.0	0	QVN	Rare pyrite stringers.	120172	0	0	
93.57	96.62		2.0	1	QVN		120173	0	0	
96.62	98.15		2.0	0	QVN	Locally silicified.	120174	0	0	
98.15	101.19		2.0	3	QVN		120175	0	0	
101.19	104.24		2.0	3	QVN		120176	0	0	
104.24	105.77		2.0	1.0	3	QVN	Less broken section. Vuggy sections. Covellite or bornite grains present(5%) at 105.3m.	120177	0	0
105.77	107.29		2.0	0	QZVN	Qtz-zeolite veining.	120178	0	0	
107.29	110.34		2.0		QVN	More broken section.	120179	0	0	
110.34	111.85		2.0	2	0	QVN 70 5	Sporadic qtz-zeo veining.Coarse pyrite disseminations present. Poor recovery.	120180	0	0
111.85	113.39		3.0	1	4	QVN 30 10	Vuggy section.	120181	0	0
113.39	114.91		3.0	2	1	QVN 90 10		120183	0	0
114.91	116.43		1.0		0	QVN 80 15	Slightly more competent.	120184	0	0
116.43	117.96		2.0		0	QVN 90 10		120185	0	0
117.96	119.48		2.0		46	QVN 70 20	Slightly more competent.	120186	0	0
119.48	121.01		2.0		11	QVN 70 20		120187	0	0
121.01	122.53		1.0	1	8	QVN 50 10		120188	0	0
122.53	128.63		2.0		7	QVN 30 5	Pyrite aggregates on joint surfaces.	120189	0	0
128.63	130.15		2.0		1	QZVN 40 7	Augite phyric protolith - monzonite fragment present in rubble.	120190	0	0
130.15	131.67		3.0	1	18	QZVN 80 15	Randomly oriented veins.	120191	0	0
131.67	133.02		3.0	1	9	QVN 30 15	Local hematite on joint surfaces.	120192	0	0
133.02	134.72		3.0		1	QVN 90 15	Sulfides as disseminations and grain aggregates.	120193	0	0
134.72	136.60		2.0		1	QVN 20 10		120194	0	0
136.60	137.77		2.0		1	QVN 80 10	Poor recovery.	120195	0	0
137.77	140.82		2.0			QVN		120196	0	0



**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
140.82	143.87	Fine-medium-grained medium green chloritic sericitic	1.0	1	78 QVN 90	Poor recovery.	120197	0	0
143.87	149.96	Fine-medium-grained medium green chloritic	2.0	3	102 QVN	Increasing magnetite content.	120198	0	0
149.96	163.98		2.0	1	5 QVN		120199	0	0
163.98	168.25		2.0		0 QVN		120200	0	0
168.25	169.77		2.0		0 QVN	Clay altered portion @ 169.0m	120201	0	0
169.77	172.82		1.0		0 QZVN	Zeolite on joint planes.	120202	0	0
172.82	174.35		2.0		0 QVN		120203	0	0
174.35	175.87		2.0		0 QVN		120204	0	0
175.87	177.39		2.0		0 QVN	Pyrite aggregates and stringers.	120205	0	0
177.39	178.25		2.0		0 QVN		120206	0	0
178.25	180.44		2.0		0 QGCV 90 10	Gypsum-quartz veining.	120207	0	0
180.44	182.00		3.0		0 QGCV 80 15		120209	0	0
182.00	184.00		3.0		4 QZGCV 60 15	Augite porphyritic.	120210	0	0
184.00	186.00		4.0		0 QZGCV 20 15		120211	0	0
186.00	188.00		3.0		1 QGCV 90 15	Fine biotite alteration.	120212	0	0
188.00	190.00		4.0		0 QGCV 80 20		120213	0	0
190.00	192.00		4.0		0 QGHCV 10 20	Rare hematite veining.	120214	0	0
192.00	194.00	Fine-medium-grained green brown chloritic	5.0		0 QGCV 45 15		120215	0	0
194.00	196.00		5.0		2 10 QGHCV 90 15	Mt-hematite veining with gypsum selvage.	120216	0	0
196.00	198.00		4.0		2 1 QGCV 70 30		120217	0	0
198.00	200.00	Fine-medium-grained medium green chloritic	4.0		2 1 QGCV 90 10	Py-mt veining associated with qtz-gypsum veinlets.	120218	0	0
200.00	201.98		3.0		3 QGCV 15 15	Augite porphyritic.	120219	0	0
201.98	204.00		4.0		0 QGCV 20 30	Amygdular section. Secondary qtz 201.98-202.08m forming stockwork locally.	120220	0	0
204.00	206.00	Fine-medium-grained green brown chloritic sericitic	3.0		0 QGCV 80 20		120221	0	0
206.00	207.60		3.0		0 QGVN 80 30		120222	0	0

**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
207.60	208.88	Fine-medium-grained medium green brecciated chloritic	2.0	0	QGVN 90 20	Sheared and weakly brecciated - possible in-situ breccia.	120223	0	0
208.88	210.00	Fine-medium-grained dark green chloritic	3.0	0	QVN 70 3		120224	0	0
210.00	212.00	Fine-medium-grained medium green chloritic	4.0	0	QGVN 80 30	Gypsum flooding - clear selenite. 210.96 - 211.23m -- >kspar veinlets.	120225	0	0
212.00	214.00		4.0	0	QGVN 0 15		120226	0	0
214.00	216.00	Fine-medium-grained medium green chloritic silicic	4.0	0	QGKV 80 20		120227	0	0
216.00	217.95	Fine-medium-grained medium green chloritic	3.0	2	43 QGVN 60 20	Pyrite aggregates associated with gypsum-qtz veinlets.	120228	0	0
217.95	220.00		1.0	0	QGVN 50 30	At 218.5 and 219.5m minor fuchsite. Section with brown gypsum.	120229	0	0
220.00	222.00		1.0	0	QGVN 15	Rare mt stringers.	120230	0	0
222.00	223.97		1.0	0	QGVN 45 30	Gypsum veinlets at 223.53, 223.64, 223.8 - 223.97m.	120231	0	0
223.97	224.72			4	GVN 70 40	Gypsum flooding - selenite in places.	120232	0	0
224.72	226.00	Fine-medium-grained brown green chloritic sericitic	3.0	41	GZVN 70 20	Minor vuggy structures.	120233	0	0
226.00	227.69	Fine-medium-grained brown green chloritic	2.0	1	GZVN 60 30	Disseminated py associated with selenite-zeolite veinlets.	120235	0	0
<b>227.69</b>	<b>228.72</b>	<b>ANDESITE</b>							
227.69	228.72	Fine-medium-grained light grey	1	6	GVN 100	Gypsum-selenite veins locally associated with mt stringers.	120236	0	0
<b>228.72</b>	<b>371</b>	<b>ANDESITE FLOW</b>							
228.72	230.72	Fine-medium-grained light green chloritic sericitic	1.0	0	QZVN 80 30	Zeolite associated with gypsum veining.	120237	0	0
230.72	232.00	Fine-medium-grained light green chloritic	2.0	0	GVN 80 30		120238	0	0
232.00	233.78		2.0	0	GKVN 80 30	232.47 to 232.76m gypsum flooding and pyrite in selvages.	120239	0	0
233.78	235.29		1.0	1	0 GVN 70 90		120240	0	0
235.29	236.83	Fine-medium-grained medium green chloritic	2.0	16	QGVN 90 20		120241	0	0
236.83	238.00		3.0	21	QVN 70 20		120242	0	0
238.00	240.00		3.0	3	53 GZCV 80 20	Mt disseminated in flow and associated with selenite.	120243	0	0

## Hole Number: KN-02-54

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
240.00	242.00	Fine-medium-grained medium green chloritic	4.0	0	GVN 60 15		120244	0	0
242.00	244.00		3.0	0	GVN 80 15	Local gypsum veining.	120245	0	0
244.00	246.00		4.0	0	GVN 70 10	Increasing vein density to 250m.	120246	0	0
246.00	248.00		4.0	0	GVN 60 15		120247	0	0
248.00	250.00		4.0	0	GVN 80 20		120248	0	0
250.00	252.00		4.0	0	GVN 70 10	Disseminated pyrite associated with veinlet systems.	120249	0	0
252.00	254.00		6.0	0	GVN 70 15		120250	0	0
254.00	256.00		6.0	0	GVN 20 10		120251	0	0
256.00	258.00		3.0	0	QGVN 80 10	Patch down clouration due to sericite-biotite alteration. Local broken zone.	120252	0	0
258.00	260.00	Fine-medium-grained medium green chloritic sericitic	3.0	1	QVN 80 7	Py veins associated mt-cc-qtz veining.	120253	0	0
260.00	262.00	Fine-medium-grained green brown chloritic	2.0	0	QVN 70 10	Vuggy section.	120254	0	0
262.00	264.00		2.0	1	QVN 70 15		120255	0	0
264.00	266.00		3.0	0	QVN 90 15	Vuggy dissolution textures in qtz veins - local minor mt.	120256	0	0
266.00	268.00		4.0	1	QVN 90 7		120257	0	0
268.00	270.00		6.0	0	QVN 90 7	Local amygdular sections.	120258	0	0
270.00	272.00		4.0	0	QVN 70 5	Local broken zones.	120259	0	0
272.00	274.00		4.0	0	QGVN 40 10	Local mottled texture with rare gypsum veins.	120261	0	0
274.00	276.00		4.0	0	QVN 70 15		120262	0	0
276.00	278.00		5.0	0	QGVN 90 10		120263	0	0
278.00	280.00		4.0	1	QGVN 70 15	Augite phyric section continues. Py-my associated with qtz veins.	120264	0	0
280.00	282.00	Fine-medium-grained medium green porphyritic chloritic	4.0	1	QGVN 5 15	Notable increase in augite phenocrysts.	120265	0	0
282.00	284.00	Fine-medium-grained green brown brecciated chloritic	5.0	1	QGVN 50 20	In-situ brecciated section.	120266	0	0
284.00	286.00		5.0	0	QZVN 5 10	Crackle brecciated.	120267	0	0
286.00	288.00	Fine-medium-grained medium green porphyritic chloritic	5.0	0	QGZV 70 15		120268	0	0

**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
288.00	290.00	Fine-medium-grained medium green chloritic	5.0	0	QZVN 60 7	Rare cpy associated with pyrite in qtz veins. Vuggy section.	120269	0	0
290.00	291.95		4.0	2	100 QZVN 5 7	Locally broken sections.	120270	0	0
291.95	294.00	Fine-medium-grained light green chloritic	5.0	0	QZVN 90 15	Vuggy flow and vein textures.	120271	0	0
294.00	296.00	Fine-medium-grained green brown chloritic	4.0	0	QZVN 90 10		120272	0	0
296.00	298.00		4.0	1	0 QVN 40 7	Rare mt veining.	120273	0	0
298.00	300.00		5.0	2	0 QZVN 80 10		120274	0	0
300.00	302.00		4.0	0	QZVN 40 15		120275	0	0
302.00	304.00		4.0	0	QZVN 80 15	Local broken zones.	120276	0	0
304.00	306.00		6.0	0	QVN 70 15		120277	0	0
306.00	308.00		5.0	0	QVN 70 15		120278	0	0
308.00	314.55		6.0	0	QGVN 60 15	Broken section; poor recovery.	120279	0	0
314.55	316.00		4.0	0	QGVN 80 10	Augite phyric section continues. Py in flow as disseminations.	120280	0	0
316.00	317.36		5.0	0	QGVN 30 5		120281	0	0
317.36	319.35	Fine-medium-grained light green sericitic	7.0	2	0 QZVN 80 15	Strongly sericitized section.	120282	0	0
319.35	321.00	Fine-medium-grained green brown chloritic	5.0	1	QZVN 90 7		120283	0	0
321.00	322.17		4.0	0	QZVN 50 5	Minor broken section.	120284	0	0
322.17	324.00		7.0	0	QZVN 90 7	Amygdular section - filled with 2ndy py and chlorite.	120285	0	0
324.00	326.00	Fine-medium-grained medium green chloritic	6.0	0	QVN 80 7	Rare epidote sections.	120287	0	0
326.00	328.00	Fine-medium-grained green brown chloritic	4.0	0	QZHV 90 7	Vuggy qtz vein at 327.14m - py aggregates.	120288	0	0
328.00	330.00	Fine-medium-grained brown green chloritic	5.0	0	QVN 70 7	Vuggy qtz-cbt vein with diss pyrite.	120289	0	0
330.00	332.00	Fine-medium-grained medium brown sericitic	6.0	0	QGCV 90 15		120290	0	0
332.00	334.00	Fine-medium-grained green brown chloritic	4.0	0	QCVN 90 10	Locally vuggy sections.	120291	0	0
334.00	336.00		5.0	2	QGCV 90 15	Slightly increased veining.	120292	0	0

**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
336.00	338.00	Fine-medium-grained green brown chloritic	5.0	0	QGZCV 70 15	Dissolution features on gyp-cc veins.	120293	0	0
338.00	340.00		4.0	0	QGCV 70 10		120294	0	0
340.00	342.00		3.0	0	QGCV 70 7	Minor broken section - 340-342m.	120295	0	0
342.00	344.00		4.0	0	QGCV 20 10		120296	0	0
344.00	346.00		3.0	0	QZVN 80 7	Vuggy vein textures locally.	120297	0	0
346.00	348.00		4.0	0	QZVN 40 10		120298	0	0
348.00	350.00		4.0	0	QZVN 80 7	Broken zone. Augite phyric unit continues.	120299	0	0
350.00	352.63	Fine-medium-grained green brown amygdular chloritic	4.0	0	QZVN 50 10	Poor recovery - amygdular section.	120300	0	0
352.63	354.00	Fine-medium-grained green brown chloritic	3.0	0	QZVN 80 7		120301	0	0
354.00	356.00		3.0	0	QZVN 90 5	Broken fault zone associated with clay alteration.	120302	0	0
356.00	358.00		4.0	2	114 QZVN 80 7		120303	0	0
358.00	360.00		3.0	11	QVN 80 7		120304	0	0
360.00	362.00		3.0	2	31 QGVN 80 10	Mt associated with gypsum veining.	120305	0	0
362.00	363.47		3.0	1	0 QGZV 70 15		120306	0	0
363.47	365.00		5.0	1	6 QGZV 80 20		120307	0	0
365.00	367.00		5.0	0	QGZV 70 15	Weak epidote associated with qtz-gypsum veining.	120308	0	0
367.00	369.00		5.0	0	QGVN 70 10	Local anhydrite.	120309	0	0
369.00	371.00		6.0	22	QGVN 50 15		120311	0	0
<b>371</b>	<b>377</b>	<b>BASALT FLOW</b>							
371.00	373.00	Fine-medium-grained green brown porphyritic chloritic	5.0	1	3 QGZV 80 10	Augite phyric section continues.	120312	0	0
373.00	375.00		4.0	4	QGZAV 90 10	Anhydrite veining present.	120313	0	0
375.00	377.00		3.0	2	38 QGZV 70 10		120314	0	0
<b>377</b>	<b>379</b>	<b>ANDESITE FLOW</b>							
377.00	379.00	Fine-medium-grained green brown chloritic	3.0	1	46 QGAV 70 7	Anhydrite-gypsum veining present.	120315	0	0
<b>379</b>	<b>381</b>	<b>BASALT FLOW</b>							
379.00	381.00	Fine-medium-grained medium green porphyritic chloritic	4.0	1	50 QGVN 90 7		120316	0	0

## Hole Number: KN-02-54

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
381	440	<b>ANDESITE FLOW</b>							
381.00	383.00	Fine-medium-grained green brown chloritic	10.0	1	0 QGAV 70 15		120317	0	0
383.00	384.00		7.0	1	4 QZVN 70 15		120318	0	0
384.00	386.00	Fine-medium-grained green brown porphyritic chloritic	5.0	3	2 QGAZV 45 15	Broken zone - rare zeolite veining - zone dominated by gypsum-anhydrite veining.	120319	0	0
386.00	388.00	Fine-medium-grained green brown chloritic	6.0	4	68 QGAZV 50 20	Randomly oriented zeolite stringers.	120320	0	0
388.00	390.00		5.0	1	2 QGAZV 70 15	Disseminated mt in flow - no visible mt present.	120321	0	0
390.00	392.00		4.0	1	0 QGAZV 80 25	Rare anhydrite-gypsum veining.	120322	0	0
392.00	394.00		5.0	3	19 QGAZV 60 20		120323	0	0
394.00	396.00		3.0	1	0 QGZV 70 15	Localised epidote alteration.	120324	0	0
396.00	398.00		4.0	3	40 QGAZV 70 20	Mt veinlets - rest sulphates.	120325	0	0
398.00	400.00		3.0	4	133 QGAZV 30 15	Fragmental shear @ 398.5 - 399.0m.	120326	0	0
400.00	402.00		2.0	3	40 QGAZV 0 30	Qtz-anhydrite-gypsum veins xcut by zeolite veins.	120327	0	0
402.00	404.00	Fine-medium-grained medium green chloritic	4.0		0 QGAZV 90 20		120328	0	0
404.00	406.00	Fine-medium-grained green brown chloritic	2.0	2	6 QGZV 30 20	Massive mt in flow unit locally.	120329	0	0
406.00	408.00		2.0	4	51 QZVN 70 15	Rare py veinlets.	120330	0	0
408.00	409.94		4.0	1	1 QGZV 90 10	Local broken sections.	120331	0	0
409.94	412.00		4.0	1	3 QGAZV 5 20	Brecciated insitu fragmental - locally sheared.	120332	0	0
412.00	414.00		2.0	3	21 QGZV 30		120333	0	0
414.00	416.00		2.0	1	4 QGZV 0 15	Local increase in zeolite veining.	120334	0	0
416.00	418.00		3.0	1	9 QGAZV 50 15		120335	0	0
418.00	420.00	Fine-medium-grained medium green chloritic	5.0	2	0 QGAZV 30 20		120337	0	0
420.00	422.00	Fine-medium-grained green brown chloritic	3.0	5	1 QGAZV 80 25		120338	0	0
422.00	424.00		4.0	5	88 QGAZV 80 15		120339	0	0
424.00	426.00	Fine-medium-grained medium green chloritic	3.0	2	7 QGAZV 70 10		120340	0	0

## Hole Number: KN-02-54

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
426.00	428.00	Fine-medium-grained green brown chloritic	3.0	3	50 QGAZV 80 15		120341	0	0
428.00	430.00		5.0	3	37 QGAZV 90 10	Pink clouration possibly due to potassic alteration.	120342	0	0
430.00	432.00		5.0	3	19 QGAZV 90 15	Augite phyric unit continues.	120343	0	0
432.00	434.00		6.0	1	29 QGAZV 80 15	Disseminated pyrite between 432.0 and 432.20m associated with mt.	120344	0	0
434.00	436.00	Fine-medium-grained medium green chloritic	5.0	2	23 QGAZV 70 10		120345	0	0
436.00	438.00		4.0	3	4 QGAZV 90 15		120346	0	0
438.00	440.00		4.0	2	5 QGAZV 20 10		120347	0	0
440	490	<b>BASALT FLOW</b>							
440.00	442.00	Fine-medium-grained medium green chloritic	3.0	2	88 QGVN 80 7		120348	0	0
442.00	444.00	Fine-medium-grained medium green porphyritic chloritic	6.0	1	23 QGAV 60 7	Ankerite associated with gypsum vein.	120349	0	0
444.00	446.00	Fine-medium-grained medium green chloritic	7.0	3	4 QGZV 90 10	Massive mt in unit with minor pyrite. Rare zeolite veinlets.	120350	0	0
446.00	448.00	Fine-medium-grained medium green porphyritic chloritic	5.0	4	51 QGVN 80 7		120351	0	0
448.00	450.00		5.0	1	11 QGVN 70 10		120352	0	0
450.00	452.00		6.0	3	113 QGVN 90 10		120353	0	0
452.00	454.00		6.0		11 QGZV 5 20		120354	0	0
454.00	456.00		7.0	3	15 QGAV 0 15		120355	0	0
456.00	458.00	Fine-medium-grained green brown porphyritic chloritic silicic	5.0	2	109 QGZAV 70 15	Local epidote-rich section; mt aggregates associated with gypsum veins. Local broken zone.	120356	0	0
458.00	460.00	Fine-medium-grained medium green porphyritic chloritic	7.0	2	93 QGZAV 80 15	Mt vein. Augite porphyritic section continues.	120357	0	0
460.00	462.00		7.0	2	28 QGZAV 80 15		120358	0	0
462.00	464.00		8.0		8 QGZAV 90 25		120359	0	0
464.00	466.00		10.0		1 QGZAV 70 15		120360	0	0
466.00	468.00		6.0	3	40 QZVN 0 15		120361	0	0
468.00	470.00		7.0		2 QGZAV 60 15		120363	0	0
470.00	472.00	Fine-medium-grained medium green porphyritic chloritic silicic	7.0		3 QGZAV 80 15		120364	0	0

**Hole Number: KN-02-54**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
472.00	474.00	Fine-medium-grained green brown porphyritic chloritic silicic	6.0	1	QGZAV 60 15	Selenite-anhydrite vein locally developed.	120365	0	0
474.00	476.00	Fine-medium-grained medium green porphyritic chloritic	6.0	0	QGZAV 70 20		120366	0	0
476.00	478.00		7.0	13	QGZAV 70 20		120367	0	0
478.00	480.00		8.0	5	QGHZA 40 15		120368	0	0
480.00	482.00		3.0	3	QGZV 60 10		120369	0	0
482.00	484.00		2.0	2	66 QGZV 80 15		120370	0	0
484.00	486.00		2.0	1	36 QGZV 90 10	Augite-plagioclase phyric section.	120371	0	0
486.00	487.66	Fine-medium-grained green brown porphyritic chloritic	3.0	1	5 QGZV 40 10		120372	0	0
487.66	490.00	Fine-medium-grained light green porphyritic silicic	4.0	2	QGZV 60 10		120373	0	0
490	503.51	<b>ANDESITE FLOW</b>							
490.00	492.00	Fine-medium-grained green brown chloritic	6.0	2	23 QGZV 70 7		120374	0	0
492.00	494.00		7.0	2	14 QGZAV 3 10		120375	0	0
494.00	496.00		5.0	2	29 QGVN 70 15	Local broken zones.	120376	0	0
496.00	498.00		3.0	1	QZVN 30 10	Broken zone - sheared section with disseminated pyrite.	120377	0	0
498.00	500.00	Fine-medium-grained medium green chloritic	3.0	3	QVN 70 7	Augite-plagioclase phyric section.	120378	0	0
500.00	502.00		4.0	0	QGVN 80 5		120379	0	0
502.00	503.51		2.0	1	26 QGVN 90	502.79-503.51; qtz gypsum veining with epidote alteration.	120380	0	0
503.51	556.87	<b>BASALT FLOW</b>							
503.51	505.00	Fine-medium-grained medium green porphyritic chloritic	4.0	1	71 QZVN 80 7		120381	0	0
505.00	507.00		6.0	1	3 QGZV 3 10		120382	0	0
507.00	509.00		3.0	3	53 QZVN 5 5	Massive mt rich section - very fine grained.	120383	0	0
509.00	511.00		3.0	2	22 QGZV 80 7		120384	0	0
511.00	513.00		5.0	2	36 QGZV 70 10		120385	0	0
513.00	515.00		6.0	5	QGVN 80 10		120386	0	0
515.00	517.00		7.0	6	QGVN 80 10		120387	0	0

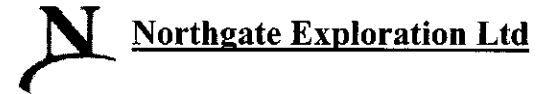


## Hole Number: KN-02-54

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
517.00	519.00	Fine-medium-grained medium green porphyritic chloritic	7.0	1	QGVN 80 7	Rare pyrite stringers associated with gypsum anhydrite veinlets.	120389	0	0
519.00	521.00		7.0	8	QGVN 50 7		120390	0	0
521.00	523.00		5.0	0	QGVN 70 7		120391	0	0
523.00	525.00		8.0	5	QGVN 80 7		120392	0	0
525.00	527.00		7.0	4	QGVN 50 10		120393	0	0
527.00	529.00		5.0	2	14 QGZVN 40 10		120394	0	0
529.00	531.00		3.0	5	36 QGVN 70 7		120395	0	0
531.00	533.00		4.0	3	9 QGVN 60 7		120396	0	0
533.00	535.00		3.0	3	3 QGZVN 90 15	Massive mt in unit with augite phenos.	120397	0	0
535.00	537.00		4.0	2	QGVN 70 15	Augite-plagioclase phyric section.	120398	0	0
537.00	539.00		3.0	0	QGVN 60 10		120399	0	0
539.00	541.00		4.0	0	QGVN 45 15		120400	0	0
541.00	543.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	1	QGVN 70 7		120401	0	0
543.00	545.00	Fine-medium-grained medium green porphyritic chloritic	3.0	4	51 QGVN 60 10		120402	0	0
545.00	547.00		3.0	2	46 QGVN 70 10	Amygdular section - filled with 2ndy py and chlorite.	120403	0	0
547.00	549.00		4.0	0	QGVN 70 15		120404	0	0
549.00	551.00	Fine-medium-grained medium green chloritic	4.0	5	17 QGZVN 60 10	Massive mt fragmental...mafic flow.	120405	0	0
551.00	553.00	Fine-medium-grained medium green porphyritic chloritic	5.0	2	QGZV 80 12		120406	0	0
553.00	555.00		7.0	3	30 QGZV 5 15		120407	0	0
555.00	556.87		5.0	3	13 QGZV 50 7	Mt-py veinlets and aggregates associated with gypsum veining. Crosscut by later zeolite veining. EOH 556.87m.	120408	0	0

556.87 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-54A**

<b>Northing:</b> 15915.3	<b>Total Depth:</b> 39.62m
<b>Easting:</b> 10162.4	<b>Azimuth:</b> 180°
<b>Elevation:</b> 1718.7	<b>Dip:</b> -55°

<b>Geologist:</b> B. LaPeare
<b>Logged Date:</b> 10/11/200

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
35 m	180 °	-55 °	No survey/lost hole

# Kemess North 2002 - Summary Drill Log



Hole Number:

**KN-02-541**

From (m)	To (m)	Rock Type	Comments
		CASING	Hole abandoned.
0	39.62	ANDESITE FLOW	Rubble, broken, moderately to highly oxidized. Protolith barely visible. Moderate to strong chlorite alt'n. Qtz vein intact, limonite lining joint planes. Significant core loss.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-54A**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	39.62	<b>ANDESITE FLOW</b>							
0.00	9.76	Fine-medium-grained brown green oxidized chloritic		1	QVN	5 Rubble, broken, moderately to highly oxidized. Protolith barely visible. Moderate to strong chlorite alt'n. Qtz vein intact, limonite lining joint planes. Significant core loss.	120129	0	0
9.76	14.33			15	QVN	5	120131	0	0
14.33	15.85	Fine-medium-grained brown green chloritic oxidized	1	7	QVN	90 7 Slightly more competent portions with qtz vein associated with rare magnetite stringers. Slightly less oxidized.	120132	0	0
15.85	17.38		1.0	1	43 QVN	5 10 Dark to medium green flow, brown coloured portions due to oxidation. Qtz veining associated locally with pyrite aggregates, magnetite aggregates and oxidized weakly to moderately. Weakly to moderately oxidized unit. Joint planes oxidized. Local broken zones, vuggy in places.	120133	0	0
17.38	18.90	Fine-medium-grained green brown chloritic oxidized	1.0	1	49 QZVN	80 15 Broken. Weakly to moderately oxidized, with vuggy dissolution features between 17.38 to 17.60 metres. Strongly chloritic from 17.60 to 18.90 metres, associated with qtz/mag/zeo veining, randomly oriented and irregularly spaced. Associated with pyrite aggregates in places. Vuggy dissolution features in chloritic unit. Intermediate andesitic flow.	120134	0	0
18.90	20.43		1.0	2	20 QZVN	5 15 As above, with weak oxidation mainly confined to joint planes. Qtz vein locally enveloping magnetite vein and aggregates, locally associated with pyrite aggregates and stringers. Decreased zeolite veining.	120135	0	0
20.43	21.95		1.0	2	17 QZVN	60 15 Same as sample 120134, with weak to moderate oxidation locally. Qtz/zeo veining associated with magnetite and pyrite aggregates.	120136	0	0
21.95	23.48	Fine-medium-grained medium green chloritic	1.0	1	43 QZVN	90 15 Very weak, localized sericite alt'n. Vuggy dissolution features in qtz vein and flow. Joint planes oxidized locally.	120137	0	0
23.48	24.99	Fine-medium-grained medium green chloritic sericitic	1.0	2	118 QZVN	90 15 Magnetite aggregates enveloped with qtz/zeolite veining. Weak sericite alteration associated with vuggy structures in flow.	120138	0	0
24.99	26.52		1.0	3	78 QZVN	70 15 Increased qtz/mag veining. Local, weak sericite alt'n associated with increased qtz/zeo/mag veining. Vuggy dissolution features visible locally.	120139	0	0

**Hole Number: KN-02-54A**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
26.52	28.04	Fine-medium-grained medium green chloritic sericitic	1.0	3	67 QZVN 90 15	Joint planes oxidized in places. Broken portions. Qtz/zeo veins associated with disseminated pyrite. Increased veining in sericite altered portions.	120140	0	0
28.04	29.57		1.0	2	31 QZVN 80 10	Local decrease in Qtz/zeo veining associated in placed with pyrite and magnetite aggregates. Local, weakly silicified portions.	120141	0	0
29.57	31.09		1.0	1	30 QZVN 90 10	Weak to moderate sericite alt'n, localized. Joint planes oxidized locally. Broken in places, associated with pyrite aggregates in places. Qtz/mag veining.	120142	0	0
31.09	32.62	Fine-medium-grained medium green chloritic oxidized	2.0	1	64 QZVN 5 7	Joint planes oxidized in places. Slight increase in pyrite content. Qtz/zeolite veining. Broken.	120143	0	0
32.62	34.14		1.0		38 QZVN 50 10	Joint planes oxidized. Broken. Veining also oxidized, associated with pyrite aggregates. Locally fragmented, polyolithic, not clear.	120144	0	0
34.14	35.66		1.0		20 QZVN	Fault. Broken zone. Increased oxidation, confined locally to joint planes. Rare epidote alt'n. Locally fragmented, possibly polyolithic.	120145	0	0
35.66	37.19		1.0		7 QZVN	As above, with Qtz/zeo veining. Broken.	120146	0	0
37.19	38.71		1.0		11 QZVN	Same as sample 120145, with Qtz/zeo veining. Broken.	120147	0	0
38.71	39.62		1.0		5 QZVN	Same as sample 120145, with no visible veining. Joint planes oxidized.	120148	0	0

39.62 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-55**

<b>Northing:</b> 15768	<b>Total Depth:</b> 572.26m
<b>Easting:</b> 9457.77	<b>Azimuth:</b> 0°
<b>Elevation:</b> 1780.3	<b>Dip:</b> -90°

<b>Geologist:</b> B.Mercer
<b>Logged Date:</b> 10/20/200

Survey Depth	Azimuth	Dip	Comments:
92 m	270 °	-86 °	
183 m	270 °	-86 °	
274 m	270 °	-85 °	
366 m	270 °	-85 °	
457 m	270 °	-85 °	
572 m	270 °	-85 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-55**

From (m)	To (m)	Rock Type	Comments
0	5.75	CASING	Casing - No recovery
5.75	14.4	DACITE TOODOGGONE	Massive dacite to dacitic andesite. anhedral plagioclase and occasional quartz phenocrysts in a dark green aphanitic matrix.
14.4	37.4	POLYLITHIC TUFF TOODOGGONE	Poly lithic breccia / conglomerate of dacite, BFP, andesite and silicified feldspar porphyry clasts in a quartz-eye bearing matrix.
37.4	56.4	INTERMEDIATE VOLCANIC FLOW	Core is badly broken. Sampled from footage marker to footage marker up till 49.38m due to poor recovery.
56.4	99.32	BLADED FELDSPAR PORPHYRY FLOW	Can't see weak ghost texture of BFP.
99.32	103.11	INTERMEDIATE VOLCANIC FLOW	Mottled textured, weakly silicified flows cut by numerous gypsum / anhydrite veins. C.g. dissem. py.
103.11	127	BLADED FELDSPAR PORPHYRY FLOW	
127	195	BASALT FLOW	Mottled to coarsely mafic mineral porphyritic basalt. It is somewhat gabbroic looking and some mafic phenocrysts look like amphibole while others look like augite.
195	201	BLADED FELDSPAR PORPHYRY FLOW	Weak BFP texture locally. Cpy. evenly distributed throughout sample.
201	211	BASALT FLOW	
211	220	BLADED FELDSPAR PORPHYRY FLOW	Well evident BFP texture locally.
220	226	BASALT FLOW	M.g. to f.g. basalt flow with occasional c.g. clots less than 10cm long.

Hole Number:

**KN-02-55**

From (m)	To (m)	Rock Type	Comments
226	294.27	BLADED FELDSPAR PORPHYRY FLOW	BFP texture is very weak.
294.27	295.3	FELSITE DYKE	Aphanitic felsite dyke. Chloritic along fractures. Upper contact 65 deg. t.c.a. Lower contact 90 deg. t.c.a.
295.3	300.84	BLADED FELDSPAR PORPHYRY FLOW	Few specks of c.g. cpy. in QAVN's
300.84	307.2	BASALT FLOW	Silicified basalt. One massive py. veinlet and dissem. py. plus cpy. and c.g mt. throughout host.
307.2	308.9	DIABASE DYKE	Near aphanitic diabase. Scattered <1mm Fe-carb. filled amygdules.
308.9	315.6	INTERMEDIATE VOLCANIC FLOW	V.f.g. mt. at end of sample.
315.6	326.9	INTERMEDIATE FRAGMENTAL	C.g breccia of sericitized and silic'd volcanics in dark f.g. chloritic matrix. Massive py. and c.g cpy.
326.9	327.83	MONZONITE	Brown coloured monzonite porphyry with approx. 20% 2-3mm anhedral feldspar phenocrysts in an aphanitic matrix.
327.83	330.3	INTERMEDIATE VOLCANIC FLOW	
330.3	331.96	DIABASE DYKE	Diabase dyke with 15% carb. filled amygdules and a 25 cm xenolith of volcanic rock.
331.96	339.94	INTERMEDIATE VOLCANIC FLOW	Trace gypsum in some veins. Weak kfsp. patches.
339.94	365.5	BLADED FELDSPAR PORPHYRY FLOW	Irregularly dissem. c.g. py.
365.5	371.13	BASALT FLOW	White zeolite veins picking up in intensity.
371.13	372.7	INTERMEDIATE FRAGMENTAL FLOW	Dissem. and stringer py.
372.7	373	INTERMEDIATE FRAGMENTAL FAULT	sericite gouge zone. Contracts not preserved.



Hole Number:

**KN-02-55**

From (m)	To (m)	Rock Type	Comments
373	401.32	INTERMEDIATE FRAGMENTAL	V.c.g. volcanic fragmental with blocks up to boulder size. Moderate sericite alt. and weak chl. alt. riddled with white zeolite/calcite + Fe-carb. filled fractures and randomly orientated veinlets. Occasional pink zeolite veinlet as well.
401.32	402.3	DIABASE DYKE	
402.3	403.75	INTERMEDIATE FRAGMENTAL	As for 371.13 to 401.32m.
403.75	412.25	INTERMEDIATE VOLCANIC FLOW	
412.25	412.55	INTERMEDIATE VOLCANIC FAULT	
412.55	417.75	INTERMEDIATE VOLCANIC FLOW	
417.75	418.13	INTERMEDIATE VOLCANIC FAULT	V.f.g. mt. in fault zone. Cannot measure fault orientation.
418.13	419.22	INTERMEDIATE VOLCANIC FLOW	
419.22	419.68	INTERMEDIATE VOLCANIC FAULT	V.f.g. mt. in fault zone. Cannot measure fault orientation.
419.68	443.35	INTERMEDIATE VOLCANIC FLOW	
443.35	450.55	BASALT FLOW	Abundant massive mt. in qtz. veins and in host rock. Sample also contains one 8cm wide vuggy qtz./py. vein at 65 deg. t.c.a.
450.55	467.43	INTERMEDIATE VOLCANIC FLOW	
467.43	485	BASALT FLOW	Augite porphyritic basalt with mod. chl. and v. wk. ser. alt. The latter is in bands or on slips.
485	485.95	MONZONITE POST-MINERAL DYKE	Upper contact is hard to pinpoint due to kfsp. alt. and chilling of monzonite near margin. Lower contact is sharp.

Hole Number:

**KN-02-55**

From (m)	To (m)	Rock Type	Comments
485.95	489.45	BASALT FLOW	Kfsp. alt. near margin of monzonite.
489.45	490.34	MONZONITE POST-MINERAL DYKE	Crowded feldspar monzonite porphyry
490.34	542.4	BASALT FLOW	Light colour is due to a thick stockwork of ZCV's. Strong chl. wk. ser. alt. Augite porphyritic.
542.4	548.7	MONZONITE POST-MINERAL DYKE	Includes several basalt xenoliths. Carbonate poor ZCV's.
548.7	550.6	BASALT FLOW	Contact sharp and marked by a qtz./zeo. vein.
550.6	572.11	MONZONITE POST-MINERAL DYKE	Typical post mineral monzonite with areas of crowded feldspar porphyry texture and other areas that look more chilled. Contains < 10% mafic minerals on average. Breaks easily on numerous randomly orientated ZCV's.

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	5.75	<b>CASING</b>						
0.00	5.75				Casing - No recovery	55	-2	-2
5.75	14.4	<b>DACITE TOODOGGONE</b>						
5.75	7.75	Medium-grained grey chloritic limonitic		36	Massive dacite to dacitic andesite. anhedral plagioclase and occasional quartz phenocrysts in a dark green aphanitic matrix.	117601	0.002	-2
7.75	9.75			38		117602	0.005	0.007
9.75	11.75			26		117603	0.001	0.008
11.75	12.40			16		117604	0.002	0.009
12.40	14.40	Medium-grained mottled sericitic silicic		1	Highly silicified and sericitized zone. locally vuggy silicification with yellow - green sericite. Fragmental texture locally.	117605	0.001	0.009
14.4	37.4	<b>POLYLITHIC TUFF TOODOGGONE</b>						
14.40	16.42	Coarse-grained light grey brecciated sericitic limonitic		16	Polyolithic breccia / conglomerate of dacite, BFP, andesite and silicified feldspar porphyry clasts in a quartz-eye bearing matrix.	117606	0.004	0.007
16.42	18.00	Coarse-grained dark green brecciated chloritic limonitic		28		117607	0.008	0.007
18.00	20.00			30		117608	0.004	0.007
20.00	22.00			21		117609	0.003	0.007
22.00	24.00			40		117610	0.007	0.014
24.00	26.00			8		117611	0.002	0.01
26.00	28.00			92		117612	0.025	0.037
28.00	30.00			52	Very abundant qtz. eyes.	117613	0.019	0.042
30.00	32.00			19		117614	0.026	0.056
32.00	34.00			1		117615	0.006	0.036
34.00	36.00			8		117616	0.004	0.007
36.00	37.40			30	The contact with the underlying Takla Group volcanic rocks is ground and lost.	117617	0.012	0.123

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
37.4	56.4	<b>INTERMEDIATE VOLCANIC FLOW</b>							
37.40	40.23	Fine-grained light grey homogeneous sericitic gypsum	3.0	0		Core is badly broken. Sampled from footage marker to footage marker up till 49.38m due to poor recovery.	117618	0.003	0.064
40.23	41.45		3.0	0		Badly broken rubble of highly sericitic homogeneous looking flows. Very strong ser. alt. trace gypsum/anhydrite.	117619	0.039	0.163
41.45	42.37		3.0	0			117620	0.033	0.144
42.37	43.89		3.0	0			117621	0.013	0.111
43.89	46.33		3.0	0			117622	0.008	0.091
46.33	49.38		3.0	0			117623	0.008	0.049
49.38	51.38	Fine-grained light grey homogeneous sericitic chloritic	3.0	0		Same as above but the core is somewhat more intact.	117624	0.038	0.085
51.38	53.38		3.0	0			117625	0.026	0.088
53.38	55.38	Fine-grained light grey homogeneous sericitic gypsum	3.0	0			117627	0.067	0.093
55.38	56.40		3.0	0			117628	0.071	0.081
56.4	99.32	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
56.40	58.00	Coarse-grained light grey sericitic gypsum	5.0	0		Can to see weak ghost texture of BFP.	117629	0.011	0.124
58.00	60.00		5.0	0			117630	0.018	0.049
60.00	62.00		10.0	0			117631	0.011	0.061
62.00	64.00		7.0	0			117632	0.032	0.072
64.00	66.00		5.0	0			117633	0.01	0.074
66.00	68.00		10.0	0		Can to see weak ghost texture of BFP.	117634	0.028	0.137
68.00	70.00		10.0	0		Badly broken rubble. Can to see weak ghost texture of BFP on occasional larger piece.	117635	0.028	0.106
70.00	72.00		10.0	0			117636	0.009	0.076
72.00	74.00		10.0	0			117637	0.006	0.137
74.00	76.00		10.0	0			117638	0.006	0.113
76.00	78.00		5.0	0			117639	0.009	0.085
78.00	80.00		5.0	0			117640	0.056	0.202
80.00	82.00		10.0	0			117641	0.022	0.106

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
82.00	82.91	Coarse-grained light grey sericitic gypsum	10.0	0		Very poor recovery. Sampled from footage marker to footage marker	117642	0.03	0.138
82.91	85.95		10.0	0			117643	0.003	0.054
85.95	86.75	Coarse-grained dark green chloritic sericitic	1.0	25			117644	0.019	0.106
86.75	88.75		1.0	5			117645	0.057	0.325
88.75	90.75	Coarse-grained dark green sericitic chloritic	1.0	0			117646	0.024	0.116
90.75	92.05		1.0	0			117647	0.013	0.05
92.05	95.10	Coarse-grained grey-green sericitic chloritic	3.0	0			117648	0.06	0.261
95.10	97.10		3.0	0			117649	0.028	0.12
97.10	98.15		3.0	0		HQ Ends.	117650	0.033	0.138
98.15	99.32	Coarse-grained light grey sericitic chloritic	5.0	0 GVN	35 2	NQ starts. C.g. disseminated py. and occasional py. veinlet. Numerous thin gypsum veinlets.	117651	0.039	0.185
99.32	103.11	<b>INTERMEDIATE VOLCANIC FLOW</b>							
99.32	101.32	Fine-grained light grey mottled sericitic silicic	4.0	0 GAVN	35 7	Mottled textured, weakly silicified flows cut by numerous gypsum / anhydrite veins. C.g. dissem. py.	117653	0.019	0.136
101.32	103.11		6.0	0 CON	75	Similar to above with abundant py. in the gypsum / anhydrite veins.	117654	0.006	0.125
103.11	127	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
103.11	105.00	Coarse-grained grey chloritic sericitic	4.0	1 GVN	60 2		117655	0.041	0.163
105.00	107.00		10.0	1 GVN	30 2	C.g. dissem. py. and semi-massive py. stringers. Strong ghost texture of BFP.	117656	0.011	0.096
107.00	109.00	Coarse-grained grey black chloritic sericitic	2.0	34 GVN	10 2	C.g. dissem. py.	117657	0.038	0.129
109.00	111.00		2.0	0 GVN	10 2		117658	0.031	0.115
111.00	113.00		5.0	0 GVN	30 0	Weak patchy silicification with clots of semi-massive py.	117659	0.053	0.187
113.00	115.00		2.0	0 GAVN	60 0		117660	0.052	0.193
115.00	117.00		4.0	0 GAVN	35 10		117661	0.044	0.16
117.00	119.00		4.0	0 GAVN	45 2		117662	0.039	0.167
119.00	121.00		2.0	0 GAVN	10 4		117663	0.038	0.14

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
121.00	123.00	Coarse-grained grey black chloritic sericitic	2.0	0.1	1 GAVN 35 3	Tr. cpy. in massive py. veinlet.	117664	0.033	0.11
123.00	125.00		2.0		0 GAVN 35 2		117665	0.052	0.176
125.00	127.00		2.0		0 GAVN 40 2		117666	0.046	0.143
127	195	<b>BASALT FLOW</b>							
127.00	129.00	Coarse-grained grey black chloritic sericitic	2.0		0 GAVN 30 1	Mottled to coarsely mafic mineral porphyritic basalt. It is somewhat gabbroic looking and some mafic phenocrysts look like amphibole while others look like augite.	117667	0.047	0.139
129.00	131.00		2.0		0 GAVN 45 3		117668	0.022	0.086
131.00	133.00		4.0		0 GAVN 25 3		117669	0.019	0.065
133.00	135.00		2.0		1 GAVN 30 4		117670	0.016	0.059
135.00	137.00		2.0		1 GAVN 30 4		117671	0.044	0.131
137.00	139.00		0.5		3 GAVN 30 3		117672	0.055	0.14
139.00	141.00		1.0	1	66 GAVN 30 2	Massive magnetite borders at margins of gyp./anh. veinlets.	117673	0.046	0.148
141.00	143.00		1.0		1 AQVN 30 2		117674	0.078	0.228
143.00	145.00		5.0	2	2 AQVN 25 2	V.c.g. mt. in quartz / anhydrite veins. V.c.g. to semi-massive py. in same or cross-cutting same veins.	117675	0.068	0.222
145.00	147.00		0.5	1	1 AQVN 35 1		117676	0.04	0.138
147.00	149.00		1.0	1	3 AQVN 35 2	V.c.g. mt. locally.	117677	0.079	0.247
149.00	151.00		2.0	0	4 AQVN 65 1		117679	0.038	0.277
151.00	153.00		1.0	1	1 AQVN 45 1	V.c.g. mt. locally.	117680	0.061	0.172
153.00	155.00		1.0	1	41 AQVN 30 0		117681	0.064	0.192
155.00	157.00		2.0	0.2	1 1 AQVN 55 0	All of the mt. is in one massive vein, parallel t.c.a. C.g. cpy. in two AQVN veinlets.	117682	0.073	0.156
157.00	159.00		0.5	1	2 AQVN 10 0		117683	0.106	0.272
159.00	161.00		0.5	1	12 AQVN 10 0		117684	0.057	0.139
161.00	163.00		0.5	0.1	1 51 AQVN 45 2		117685	0.067	0.203
163.00	164.38		0.5	0.1	1 4 AQVN 2 0		117686	0.05	0.149
164.38	165.65	Fine-grained light grey homogeneous silicic sericitic	5.0	0.1	2 CON 55	Qtz. / anh. flooded zone. F.g. dissem. py., trace cpy. and occasional py. stringer. Upper contact of flooded zone is gradational while the lower contact is sharp.	117687	0.161	0.591

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
165.65	167.00	Coarse-grained grey black chloritic	2.0	1	18 GAVN 35 2	Sericite has disappeared.	117688	0.133	0.393
167.00	169.00		3.0	1	14 GAVN 15 1		117689	0.096	0.188
169.00	171.00		1.0	1	5 GAVN 65 2		117690	0.108	0.295
171.00	173.00		2.0	1	2 GAVN 10 0		117691	0.065	0.174
173.00	175.00		1.0	0.1	1 46 GAVN 25 1	M.g. cpy. in GAVN.	117692	0.13	0.383
175.00	177.00	Coarse-grained grey black biotite chloritic	0.5	0.3	2 150 GAVN 25 2	M.g. cpy. in GAVN and in fractures.	117693	0.07	0.237
177.00	179.00		2.0	0.1	2 27 QAVN 25 1	Gypsum is disappearing in favour of bluish qtz./anh. veins. Biotite alt. is picking up. Chlorite on slips only.	117694	0.095	0.281
179.00	181.00	Coarse-grained black grey biotite chloritic	0.5	0.1	2 27 QAVN 25 2		117695	0.116	0.299
181.00	183.00		0.5	0.1	2 63 QAVN 25 1		117696	0.081	0.247
183.00	185.00		0.5		2 32 QAVN 25 1		117697	0.08	0.253
185.00	187.00		0.5	0.1	2 34 QAVN 45 2		117698	0.072	0.198
187.00	189.00		0.5	0.3	2 33 QAVN 30 1	Tr. molybdenite. with cpy. in qtz. / anh. vein. cpy. also in thin mt. veinlet.	117699	0.098	0.256
189.00	191.00		0.5	0.2	3 103 QAVN 20 3	Cpy. on fringes of py. in qtz./anh. veinlets.	117700	0.085	0.249
191.00	193.00		0.5		3 28 QAVN 20 1	Tr. gypsum veinlets as well as qtz./anh. veinlets.	117701	0.118	0.368
193.00	195.00		0.5	0.3	1 9 QAVN 25 2	C.g. cpy. in several qtz./anh. veinlets.	117702	0.105	0.249
195	201	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
195.00	197.00	Coarse-grained black grey biotite chloritic	0.5	0.4	1 28 QAVN 25 2	Weak BFP texture locally. Cpy. evenly distributed throughout sample.	117703	0.101	0.239
197.00	199.00		0.5	0.7	1 8 QAVN 25 3	Abundant f.g. and c.g. cpy. in veins throughout sample. Chl. on slips only.	117705	0.189	0.565
199.00	201.00		0.5	0.7	2 1 QAVN 35 10	Note: These basalt flows are very similar to the BFP flows but are lacking bladed feldspar. The plagioclase is more anhedral and surrounded by anhedral masses of biotite and mafic minerals. V.c.g. to semi-massive clots of cpy. Chl. on slips only.	117706	0.12	0.253
201	211	<b>BASALT FLOW</b>							
201.00	203.00	Coarse-grained black grey mottled biotite chloritic	0.5	1.0	3 48 QAVN 35 10		117707	0.14	0.523

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
203.00	205.00	Coarse-grained black grey mottled biotite chloritic	0.5 0.7	3	76 QAVN 60 6	M.g. and c.g. cpy. in qtz./anh. veinlets throughout sample. Magnetite distributed through mafic groundmass and as occasional clot or pseudomorph of augite.	117708	0.136	0.37
205.00	207.00		0.5 0.4	3	77 QAVN 35 4		117709	0.158	0.452
207.00	209.00		0.5 0.3	3	63 QAVN 35 8		117710	0.154	7.41
209.00	211.00		0.5 1.0	3	75 QAVN 35 7	Semi-massive cpy. in qtz./anh. veins.	117711	0.15	0.441
211	220	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
211.00	213.00	Coarse-grained black grey biotite chloritic	0.5 0.4	3	38 QAVN 40 3	Well evident BFP texture locally.	117712	0.147	0.495
213.00	217.00		0.5 0.4	2	40 QAVN 35 5		117713	0.183	0.462
217.00	218.54		0.5 0.1	2	12 QAVN 35 5		117714	0.119	0.343
218.54	220.00		0.5	3	183 QAVN 35 5	Scattered zeolite veinlets.	117715	0.126	0.39
220	226	<b>BASALT FLOW</b>							
220.00	222.00	Coarse-grained black grey homogeneous biotite chloritic	0.5 0.1	1	12 QAVN 35 10	M.g. to f.g. basalt flow with occasional c.g. clot less than 10cm long.	117716	0.129	0.4
222.00	224.00	Medium-grained black grey homogeneous biotite chloritic	0.5 0.3	1	12 QAVN 35 3		117717	0.083	0.225
224.00	224.73		0.5 0.3	2	60 QAVN 35 2		117718	0.106	0.28
224.73	226.00		0.5 0.3	2	27 QAVN 30 2		117719	0.171	0.415
226	294.27	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
226.00	228.00	Coarse-grained black grey biotite chloritic	0.5 0.1	2	13 QAVN 10 4	BFP texture is very weak.	117720	0.089	0.253
228.00	230.00		0.5 0.1	2	11 QAVN 30 6		117721	0.154	0.528
230.00	232.00		0.5 0.1	2	59 QAVN 35 1	Strong BFP texture.	117722	0.096	0.312
232.00	234.00		0.5 1.0	2	26 QAVN 20 10	Sporadic clots of BFP texture throughout c.g. flows. Semi-massive cpy. in qtz./anh. vein.	117723	0.357	0.559
234.00	236.00		0.5 0.4	2	13 QAVN 35 10	Cpy. in qtz./anh. veins often associated with m.g. py. Well evident BFP texture.	117724	0.117	0.469
236.00	238.00		0.5 0.3	2	9 QAVN 35 5		117725	0.135	0.513
238.00	240.00		0.5 0.2	2	36 QAVN 35 5		117726	0.1	0.333
238.00	240.00		0.5 0.2	2	68 QAVN 35 2		117727	0.089	0.215
240.00	242.00		0.5 0.4	2	18 QAVN 35 3		117728	0.119	0.303



## Hole Number: KN-02-55

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
242.00	244.00	Coarse-grained black grey biotite chloritic	0.5	0.3	2 57 QAVN 35 3		117729	0.097	0.327
244.00	244.90		0.5	0.4	2 15 QAVN 35 10		117731	0.132	0.412
244.90	246.22	Coarse-grained light grey silicic anhydrite	2.0	0.5	2 10 QAVN 45 50	Very strong qtz./anh. flooding.	117732	0.162	0.369
246.22	248.00	Coarse-grained black grey biotite chloritic	1.0	0.4	2 91 QAVN 35 7		117733	0.111	0.262
248.00	250.00		0.5	0.1	2 44 QAVN 35 2	Tr. v.f.g. cpy.	117734	0.096	0.271
250.00	252.00		0.5		2 49 QAVN 35 3		117735	0.082	0.254
252.00	254.00		0.3	0.1	2 19 QAVN 35 5	Tr. v.f.g. cpy.	117736	0.085	0.253
254.00	256.00		0.3	0.1	2 114 QZAV 35 5	Relatively abundant white zeolite in qtz./anh. veins.	117737	0.108	0.302
256.00	258.00		0.1		2 20 QZAV 35 7		117738	0.099	0.274
258.00	260.00		0.1		2 107 QZAV 35 4		117739	0.132	0.348
260.00	262.00		0.5		2 41 QAVN 35 1		117740	0.082	0.192
262.00	264.00		0.3	0.1	2 19 QAVN 55 1	V.c.g. bladed plagioclase.	117741	0.129	0.32
264.00	266.00		0.3	1.5	2 49 QAVN 45 5	Abundant c.g. cpy. at 265.45 to 266.00m	117742	0.216	0.436
266.00	268.00		0.3	0.3	2 73 QAVN 45 2		117743	0.181	0.422
268.00	270.00		0.3	0.1	2 20 QAVN 10 7	Abundant zeolite veins sub-parallel t.c.a.	117744	0.101	0.242
270.00	271.60	Coarse-grained black biotite chloritic	0.3	0.2	2 40 QAVN 45 1		117745	0.194	0.47
271.60	273.00	Coarse-grained light grey silicic anhydrite	0.3		1 40 QAVN	Very strong qtz./anh. flooding. Can see ghost BFP texture.	117746	0.129	0.365
273.00	275.00		0.3	0.1	1 QAVN	Similar to above with some brecciation and trace pyrophyllite.	117747	0.169	0.401
275.00	275.58		0.1	0.1	1 CON 45	Weakly disseminated py. and cpy. Can see outlines of BFP fragments.	117748	0.159	0.285
275.58	277.58	Coarse-grained black biotite chloritic			1 29 QAVN 35 1		117749	0.062	0.154
277.58	278.12		0.1	0.7	1 1 QAVN 35 7	V.c.g. cpy. in QAVN's near end of sample.	117750	0.378	0.981
278.12	279.20	Coarse-grained light grey silicic anhydrite			1 25	As for 117746.	117751	0.122	0.197
279.20	281.20	Coarse-grained grey-green chloritic	2.0	0.2	1 3 QAVN 35 6	Py. and cpy. in QAVN's. Minor zeolite veining.	117752	0.156	0.273
281.20	282.55	Coarse-grained black grey biotite chloritic	1.0		1 0 QAVN 20 1	C.g. py. in veins and f.g. py. erratically dissem. in host rock. Light coloured fibrous radiating crystals of zeolite.	117753	0.102	0.251
282.55	283.33		0.1	0.2	1 66 QAVN 45 0		117754	0.134	0.308

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
283.33	285.00	Coarse-grained light grey anhydrite silicic	0.5 0.1	1	12 ZVN 35 0	Brecciated anhydrite / silica flooded BFP.	117755	0.245	0.423
285.00	285.68		1.0 0.1	0	5 ZVN 35 0	Cpy. associated with v.c.g. py.	117757	0.231	0.391
285.68	287.00	Coarse-grained black biotite chloritic	0.5 0.1	1	8 QAVN 30 1	Several grains of cpy. in host rock. Py. in QAVN's.	117758	0.177	0.404
287.00	289.00	Coarse-grained black grey biotite chloritic	0.3		3 QAVN 35 3		117759	0.124	0.331
289.00	291.00		0.3		1 QAVN 35 1		117760	0.086	0.228
291.00	293.00		0.3		1 QAVN 45 2		117761	0.095	0.223
293.00	294.27		0.3		1 QAVN 30 0		117762	0.067	0.156
<b>294.27</b>	<b>295.3</b>	<b>FELSITE DYKE</b>							
294.27	295.30	Fine-grained light grey homogeneous silicic chloritic	0.5 0.1		3 GVN 75 0	Aphanitic felsite dyke. Chloritic along fractures. Upper contact 65 deg. t.c.a. Lower contact 90 deg. t.c.a.	117763	0.335	0.445
<b>295.3</b>	<b>300.84</b>	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
295.30	297.30	Coarse-grained black grey biotite chloritic	0.3 0.1	1	42 QAVN 40 1	Few specks of c.g. cpy. in QAVN's	117764	0.206	0.435
297.30	299.30		1.0 0.3	1	23 QAVN 45 2	Wk. graphite on some cleavage planes. C.g. cpy. at several locations in QAVN's. Some massive py. veins at start of sample.	117765	0.08	0.178
299.30	300.84		0.5 0.1		0 QAVN 35 2		117766	0.167	0.368
<b>300.84</b>	<b>307.2</b>	<b>BASALT FLOW</b>							
300.84	301.44	Medium-grained light grey mottled silicic chloritic	1.0 0.3	2	39 QAVN 0 5	Silicified basalt. One massive py. veinlet and dissem. py. plus cpy. and c.g. mt. throughout host.	117767	0.315	0.703
301.44	303.44	Medium-grained black grey homogeneous biotite chloritic	1.0 0.1		7 QAVN 50 5		117768	0.136	0.361
303.44	305.44		0.5 1.0		0 QAVN 50 5	Dissem. and semi-massive cpy. Local anhydrite flooding.	117769	0.215	0.621
305.44	307.20	Medium-grained green-grey mottled chloritic sericitic	0.5		5 CON 55	Very weak sericite.	117770	0.097	0.202
<b>307.2</b>	<b>308.9</b>	<b>DIABASE DYKE</b>							
307.20	308.90	Fine-grained grey black amygdular			36 CON 65	Near aphanitic diabase. Scattered <1mm Fe-carb. filled amygdules.	117771	0.007	-2
<b>308.9</b>	<b>315.6</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
308.90	310.90	Fine-grained grey-green homogeneous chloritic sericitic	0.5	2	107 QGAV 40 5	V.f.g. mt. at end of sample.	117772	0.079	0.168

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
310.90	312.90	Fine-grained grey-green in-situ brecciated chloritic sericitic	0.5	0.1	1 46 QGAV 45 5	Thin mt. boarders to QAVN's. Tr. cpy., wk. sericite.	117773	0.086	0.207
312.90	314.90	Fine-grained green in-situ brecciated chloritic sericitic	0.3	0.1	1 QGAV 55 1	Moderate sericite alteration.	117774	0.064	0.198
314.90	315.60				1 QGAV 25 0	Similar to above but totally devoid of sulphides.	117775	0.076	0.192
<b>315.6</b>	<b>326.9</b>	<b>INTERMEDIATE FRAGMENTAL</b>							
315.60	316.00	Coarse-grained green black brecciated chloritic sericitic	1.0	0.3	15 GVN 70 0	C.g breccia of sericitized and silic'd volcanics in dark f.g. chloritic matrix. Massive py. and c.g cpy.	117776	0.132	0.302
316.00	318.00	Coarse-grained green-grey brecciated chloritic sericitic	0.1		3 QAVN 30 2	Fragments up to cobble size.	117777	0.068	0.162
318.00	320.00		0.1		2 QAVN 45 2		117778	0.042	0.101
320.00	322.00		0.1		5 QAVN 25 3	Locally graphitic.	117779	0.073	0.153
322.00	324.00		0.1		8 QAVN 30 0	More tuffaceous looking texture here.	117780	0.074	0.176
324.00	326.00		0.3	0.1	1 QAVN 50 5	Contains an 8cm wide dykelet of brown coloured monzonite porphyry. Contacts at 70 deg. t.c.a.	117781	0.101	0.191
326.00	326.90		0.5	0.1	9 QAVN 50 15	Contains one 11cm QAVN and several smaller ones.	117783	0.083	0.158
<b>326.9</b>	<b>327.83</b>	<b>MONZONITE</b>							
326.90	327.83	Medium-grained brown chloritic	0.5		32 QAVN 40 1	Brown coloured monzonite porphyry with approx. 20% 2-3mm anhedral feldspar phenocrysts in an aphanitic matrix.	117784	0.131	0.522
<b>327.83</b>	<b>330.3</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
327.83	329.83	Medium-grained grey black mottled chloritic	0.3		40 QAVN 40 2		117785	0.048	0.137
329.83	330.30	Fine-grained grey black mottled chloritic			20 CON 30	Scattered qtz./anhy./gyp. vein.	117786	0.146	0.331
<b>330.3</b>	<b>331.96</b>	<b>DIABASE DYKE</b>							
330.30	331.96	Fine-grained black amygdular			13 CON 72	Diabase dyke with 15% carb. filled amygdules and a 25 cm xenolith of volcanic rock.	117787	0.061	0.093
<b>331.96</b>	<b>339.94</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>							
331.96	333.96	Fine-grained grey-green mottled chloritic sericitic	0.3	1	27 QGAV 35 4	Trace gypsum in some veins. Weak kfsp. patches.	117788	0.063	0.146
333.96	335.96		0.3		1 QGAV 35 3		117789	0.035	0.071
335.96	337.96	Fine-grained green tan mottled chloritic sericitic			0 QGAV 40 2	Kfsp. alt. much stronger.	117790	0.046	0.093

## Hole Number: KN-02-55

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
337.96	339.94	Fine-grained green tan mottled chloritic sericitic		6	QGAV 25 3		117791	0.055	0.115
<b>339.94</b>	<b>365.5</b>	<b>BLADED FELDSPAR PORPHYRY FLOW</b>							
339.94	341.00	Coarse-grained grey black biotite chloritic	0.5	1	20 QGAV 35 0	Irregularly dissem. c.g. py.	117792	0.036	0.086
341.00	343.00		1.0	1	2 QGAV 35 2	Irregularly dissem. c.g. py. One 1cm wide semi-massive py./qtz. vein.	117793	0.082	0.199
343.00	345.00		0.2		4 QGAV 35 3		117794	0.125	0.301
345.00	347.00		0.5		7 QGAV 25 4	Very weak sericite alt. as narrow (3-5cm) bands.	117795	0.128	0.276
347.00	349.00		1.0		1 QGAV 30 2		117796	0.158	0.31
349.00	351.00		0.5	0.1	2 QGAV 30 5		117797	0.199	0.472
351.00	353.00	Coarse-grained grey black chloritic sericitic	0.1	0.1	1 QGAV 50 5	Broken over last 50cm.	117798	0.165	0.439
353.00	355.00	Coarse-grained green black chloritic sericitic	0.1	0.1	4 QGAV 50 2		117799	0.121	0.496
355.00	357.00		0.1	0.1	3 QGAV 45 1	One QGAV at 355.15 has perfectly transparent gypsum.	117800	0.214	0.714
357.00	359.00		0.1	0.1	1 QGAV 30 1	Very wk. sericite and moderate chl. alt.	117801	0.178	0.433
359.00	361.00		0.1	0.1	10 QGAV 30 2		117802	0.138	0.339
361.00	363.00		0.5	0.1	0 QGAV 20 1		117803	0.243	0.529
363.00	365.00		1.0	0.1	3 QGAV 20 0		117804	0.202	0.435
365.00	365.50		0.5	0.1	8 QGAV 40 1		117805	0.156	0.701
<b>365.5</b>	<b>371.13</b>	<b>BASALT FLOW</b>							
365.50	367.50	Fine-grained dark grey homogeneous chloritic	1.0	0.1	24 QGAV 40 1	White zeolite veins picking up in intensity.	117806	0.153	0.33
367.50	368.95		2.0	0.1	9 QGAV 40 0	Scattered massive mt. veinlets.	117807	0.179	0.598
368.95	370.00	Coarse-grained dark grey chloritic	2.0	2	6 QVN 30 2	Dissem and stringer py. This rock is similar to the c.g. basalt at the top of the hole.	117809	0.286	0.876
370.00	371.13		2.0	2	47 QVN 30 3		117810	0.195	0.597
<b>371.13</b>	<b>372.7</b>	<b>INTERMEDIATE FRAGMENTAL FLOW</b>							
371.13	372.70	Coarse-grained green brecciated sericitic chloritic	1.0	2	30 ZCV 30	Dissem. and stringer py.	117811	0.142	0.436
<b>372.7</b>	<b>373</b>	<b>INTERMEDIATE FRAGMENTAL FAULT</b>							

## Hole Number: KN-02-55

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
372.70	373.00	Coarse-grained green sericitic chloritic		0	9 FLT	sericite gouge zone. Contracts not preserved.	117812	0.272	0.934	
<b>373</b>	<b>401.32</b>	<b>INTERMEDIATE FRAGMENTAL</b>								
373.00	375.00	Coarse-grained green brecciated sericitic chloritic	0.1	0	13 ZCV	5 V.c.g. volcanic fragmental with blocks up to boulder size. Moderate sericite alt. and weak chl. alt. riddled with white zeolite/calcite + Fe-carb. filled fractures and randomly orientated veinlets. Occasional pink zeolite veinlet as well.	117813	0.242	0.619	
375.00	377.00		0.1	0	8 ZCV	15	117814	0.159	0.377	
377.00	379.00		0.1	1	33 ZCV	15	117815	0.135	0.282	
379.00	381.00		0.1	1	20 ZCV	5	117816	0.204	0.562	
381.00	383.00		0.1	1	1 ZCV	15	117817	0.272	0.567	
383.00	385.00		0.1		0 ZCV	15	117818	0.112	0.171	
385.00	387.00		0.1	1	2 ZCV	15	117819	0.133	0.276	
387.00	389.00		0.3		1 ZCV	15	117820	0.214	0.499	
389.00	391.00			1	20 ZCV	15	117821	0.155	0.337	
391.00	393.00				4 ZCV	15	117822	0.112	0.229	
393.00	395.00				4 ZCV	15	117823	0.197	0.479	
395.00	397.00				3 ZCV	15	117824	0.182	0.441	
397.00	399.00				2 ZCV	15	117825	0.268	0.483	
399.00	401.00				2 ZCV	15	117826	0.223	0.423	
401.00	401.32				0 CON	35	117827	0.187	0.277	
<b>401.32</b>	<b>402.3</b>	<b>DIABASE DYKE</b>								
401.32	402.30	Fine-grained black amygdular		27	CON	30	117828	0.042	0.073	
<b>402.3</b>	<b>403.75</b>	<b>INTERMEDIATE FRAGMENTAL</b>								
402.30	403.75	Coarse-grained green brecciated sericitic chloritic		0	ZCV	15	As for 371.13 to 401.32m.	117829	0.127	1.895
<b>403.75</b>	<b>412.25</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>								
403.75	405.75	Medium-grained green homogeneous sericitic chloritic	0.5		1 ZCV	20	117830	0.193	0.418	
405.75	407.75	Medium-grained green in-situ brecciated sericitic chloritic	0.5		6 ZCV	15	117831	0.21	0.404	

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
407.75	409.75	Medium-grained green homogeneous sericitic chloritic	0.5	1	ZCV 20		117832	0.428	0.739
409.75	411.75			3	ZCV 10		117833	0.243	0.447
411.75	412.25			7	ZCV 5		117835	0.353	0.719
412.25	412.55	<b>INTERMEDIATE VOLCANIC FAULT</b>							
412.25	412.55	Medium-grained green sericitic chloritic		3	ZCV 20		117836	0.303	0.604
412.55	417.75	<b>INTERMEDIATE VOLCANIC FLOW</b>							
412.55	414.55	Medium-grained green in-situ brecciated sericitic chloritic		2	ZCV 15		117837	0.249	0.534
414.55	416.55			5	ZCV 7		117838	0.216	0.534
416.55	417.75			4			117839	0.194	0.471
417.75	418.13	<b>INTERMEDIATE VOLCANIC FAULT</b>							
417.75	418.13	Medium-grained green sericitic chloritic	1	29		V.f.g. mt. in fault zone. Cannot measure fault orientation.	117840	0.058	0.167
418.13	419.22	<b>INTERMEDIATE VOLCANIC FLOW</b>							
418.13	419.22	Medium-grained green homogeneous sericitic chloritic		1			117841	0.187	0.35
419.22	419.68	<b>INTERMEDIATE VOLCANIC FAULT</b>							
419.22	419.68	Medium-grained green sericitic chloritic	1	14		V.f.g. mt. in fault zone. Cannot measure fault orientation.	117842	0.714	1.07
419.68	443.35	<b>INTERMEDIATE VOLCANIC FLOW</b>							
419.68	421.00	Medium-grained green homogeneous sericitic chloritic	1	2	ZCV 1		117843	0.109	0.198
421.00	423.00		0.1	1	11 ZCV 1	Contact between m.g. and f.g flows is gradational.	117844	0.175	0.328
423.00	425.00	Fine-grained dark green homogeneous chloritic sericitic	1.0	0.1	1 10 QCV 30	2 Tr. c.g. cpy. in qtz. vein.	117845	0.169	0.351
425.00	427.00		0.5	0.1	1 5 QCV 25	1	117846	0.312	0.571
427.00	429.00		2.0	0.1	1 12 QCV 40	5 Tr. f.g. cpy. in massive py./mt. aggregate at start of sample. Mt. in several QCV's and in fractures.	117847	0.27	0.457
429.00	431.00		1.0	1	12 QCV 40	0 Chl. strong and ser. very weak.	117848	0.237	0.42
431.00	433.00		0.5	1	16 QCV 40	0 Several bright white calcite veins as well as QCV's.	117849	0.261	0.583
433.00	435.00		0.5	1	8 QCV 40	1 Mt. in several QCV's and in fractures.	117850	0.224	0.431

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
435.00	437.00	Fine-grained dark green homogeneous chloritic sericitic	5.0 0.1	1	10 PYV	10 5	Tr. f.g. cpy. in massive py./mt. aggregate in middle of sample. Massive vein runs from 435.20 to 435.67m.	117851	0.37	0.476
437.00	438.80		0.3	1	3 QCV	40 1		117852	0.221	0.363
438.80	440.10	Fine-grained dark green homogeneous chloritic			11		Highly chloritic broken zone.	117853	0.076	0.135
440.10	442.10	Fine-grained dark green homogeneous chloritic sericitic	0.3 0.1	1	14 QCV	25 3		117854	0.117	0.248
442.10	443.35		0.5	1	25 CON	35	Sharp contact between f.g. IVO and augite porphyritic basalt.	117855	0.263	0.485
<b>443.35</b>	<b>450.55</b>	<b>BASALT FLOW</b>								
443.35	445.00	Coarse-grained dark green chloritic sericitic	3.0 0.2	10	198 QMV	20 15	Abundant massive mt. in qtz. veins and in host rock. Sample also contains one 8cm wide vuggy qtz./py. vein at 65 deg. t.c.a.	117856	0.435	0.649
445.00	447.00		0.3 0.1	1	29 QCV	25 3	Augite porphyritic basalt.	117857	0.188	0.426
447.00	449.00		0.5	1	53 QCV	30 1	V.c.g. augite phenocrysts locally in a fine grained matrix.	117858	0.17	0.385
449.00	450.55		3.0	2	38 QMV	35 1	Abundant c.g. dissem. py. and py. in qtz./carb. veins.	117859	0.144	0.249
<b>450.55</b>	<b>467.43</b>	<b>INTERMEDIATE VOLCANIC FLOW</b>								
450.55	452.00	Fine-grained green homogeneous chloritic sericitic	1.0	1	3 ZCV	10 2		117861	0.159	0.347
452.00	454.00		2.0	1	7 ZCV	35 2		117862	0.205	0.493
454.00	456.00		2.0	1	9 ZCV	7		117863	0.226	0.562
456.00	458.00		2.0	1	2 ZCV	7		117864	0.246	0.495
458.00	460.00		0.3	1	12 ZCV	30 1		117865	0.149	0.406
460.00	462.00		0.3	1	31 ZCV	1		117866	0.097	0.201
462.00	464.00		0.3	1	34 ZCV	3		117867	0.161	0.317
464.00	466.00		0.3	1	12 ZCV	30 2		117868	0.298	0.549
466.00	467.43		0.3	1	6 ZCV	2		117869	0.189	0.495
<b>467.43</b>	<b>485</b>	<b>BASALT FLOW</b>								
467.43	469.00	Coarse-grained grey-green chloritic sericitic		1	3 ZCV	35 0	Augite porphyritic basalt with mod. chl. and v. wk. ser. alt. The latter is in bands or on slips.	117870	0.209	0.559
469.00	471.00		0.3	1	17 ZCV	35 0		117871	0.142	0.311
471.00	473.00		0.5	1	15 ZCV	2		117872	0.192	0.368

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
473.00	475.00	Coarse-grained grey-green chloritic sericitic	1.0	1	28 ZCV 55 0		117873	0.117	0.178
475.00	477.00		0.5	1	28 ZCV 55 3		117874	0.129	0.19
477.00	479.00		1.0	1	7 ZCV 55 5	Minor kfsp. alt. in selvages of thin ZCV's and py. stringers.	117875	0.183	0.262
479.00	481.00		0.5	1	46 ZCV 40 1		117876	0.211	0.578
481.00	483.00		0.1	1	6 ZCV 55 1		117877	0.101	0.149
483.00	485.00				15 ZCV 15		117878	0.185	0.521
<b>485</b>	<b>485.95</b>	<b>MONZONITE POST-MINERAL DYKE</b>							
485.00	485.95	Coarse-grained orange k-felspar		2	CON 45	Upper contact is hard to pinpoint due to kfsp. alt. and chilling of monzonite near margin. Lower contact is sharp.	117879	0.071	0.048
<b>485.95</b>	<b>489.45</b>	<b>BASALT FLOW</b>							
485.95	487.00	Coarse-grained grey-green chloritic sericitic	0.1		5 ZCV 3	Kfsp. alt. near margin of monzonite.	117880	0.189	0.468
487.00	488.78		1.0		2 ZCV 5		117881	0.104	0.055
488.78	489.45	Coarse-grained green chloritic sericitic	0.3	1	3 CON 75	Weak kfsp. alt. near contact with PMD.	117882	0.102	0.162
<b>489.45</b>	<b>490.34</b>	<b>MONZONITE POST-MINERAL DYKE</b>							
489.45	490.34	Coarse-grained orange k-felspar chloritic	0.5	1	15 QZCV 1	Crowded feldspar monzonite porphyry	117883	0.113	0.092
<b>490.34</b>	<b>542.4</b>	<b>BASALT FLOW</b>							
490.34	492.05	Coarse-grained light grey mottled chloritic sericitic	1.0	1	9 QZCV 60	Light colour is due to a thick stockwork of ZCV's. Strong chl. wk. ser. alt. Augite porphyritic.	117884	0.127	0.084
492.05	494.00	Coarse-grained grey-green mottled chloritic sericitic	0.3	1	4 ZCV 30	Porphyritic nature hard to see locally due to the strong chl alt and the intensity of zeo./carb. veining.	117885	0.139	0.458
494.00	496.00		0.3	1	8 ZCV 30		117887	0.106	0.196
496.00	498.00		0.3	1	5 ZCV 30		117888	0.072	0.114
498.00	500.00		0.3	1	8 ZCV 15		117889	0.107	0.261
500.00	502.00	Coarse-grained dark grey chloritic sericitic	0.3	3	77 ZCV 15		117890	0.135	0.269
502.00	504.00		0.3		6 ZCV 15	As above but core is more broken. Cut by randomly orientated zeo./carb. veinlets. Most of the carbonate is calcite. sericite alt is v. wk. and barely perceptible.	117891	0.133	0.153
504.00	506.00		0.3		3 ZCV 15		117892	0.146	0.331



**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
506.00	508.00	Coarse-grained dark grey chloritic sericitic	0.3		10 ZCV	15	117893	0.111	0.199
508.00	510.00		1.0	0	2 ZCV	15	117894	0.119	0.106
510.00	512.00		1.0		6 ZCV	15	117895	0.12	0.233
512.00	514.00		0.5		2 ZCV	15	117896	0.096	0.113
514.00	516.00		1.0		4 ZCV	15	117897	0.098	0.202
516.00	518.00		2.0		0 ZCV	10	117898	0.09	0.135
518.00	520.00		2.0		11 ZCV	10	117899	0.085	0.131
520.00	522.00		1.0		1 ZCV	55 10	117900	0.093	0.107
522.00	524.00		1.0		10 ZCV	65 5	117901	0.076	0.103
524.00	526.00		1.0		1 ZCV	65 3	117902	0.07	0.125
526.00	528.00	Fine-grained dark grey homogeneous chloritic sericitic	2.0		3 ZCV	5	117903	0.088	0.079
528.00	530.00		2.0		1 ZCV	75 5	117904	0.085	0.075
530.00	532.00		3.0		7 ZCV	75 3	117905	0.066	0.085
532.00	534.00		2.0		5 ZCV	65 5	117906	0.054	0.076
534.00	536.00		1.0		4 ZCV	65 3	117907	0.109	0.194
536.00	538.00		1.0		1 ZCV	65 5	117908	0.079	0.155
538.00	540.00		1.0		3 ZCV	5	117909	0.072	0.114
540.00	542.00		1.0		2 ZCV	70 3	117910	0.099	0.194
542.00	542.40		2.0		3 ZCV	3	117911	0.118	0.117
542.4	548.7	<b>MONZONITE POST-MINERAL DYKE</b>							
542.40	544.00	Coarse-grained orange brown k-felspar chloritic			20 ZCV	1	117913	0.052	0.112
544.00	546.00		0.3		0 ZCV	70 3	117914	0.07	0.1
546.00	548.00		0.3		1 ZCV	70 10	117915	0.046	0.183
548.00	548.70		0.2		28 ZCV	0	117916	0.084	0.17
548.7	550.6	<b>BASALT FLOW</b>							

**Hole Number: KN-02-55**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
548.70	550.60	Fine-grained dark grey homogeneous chloritic	2.0	0	4 CON 75	Contact sharp and marked by a qtz./zeo. vein.	117917	0.1	0.147
<b>550.6</b>	<b>572.11</b>	<b>MONZONITE POST-MINERAL DYKE</b>							
550.60	552.00	Coarse-grained orange grey k-felspar chloritic		0	ZCV	10	117918	0.065	0.082
552.00	554.00			6	ZCV	10	117919	0.082	0.094
554.00	556.00			1	ZCV	5	117920	0.045	0.078
556.00	558.00			2	ZCV	15	117921	0.081	0.125
558.00	560.00			3	ZCV	15	117922	0.052	0.101
560.00	562.00			1	ZCV	15	117923	0.087	0.17
562.00	564.00			0	ZCV	15	117924	0.092	0.149
564.00	566.00			1	ZCV	15	117925	0.066	0.127
566.00	568.00			2	ZCV	15	117926	0.059	0.083
568.00	570.00			2	ZCV	15	117927	0.066	0.129
570.00	572.11		0.2	2	ZCV	10	117928	0.061	0.101
<b>572.11 EOH</b>									

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-56**

<b>Northing:</b> 15005.4	<b>Total Depth:</b> 542.07m
<b>Easting:</b> 8751.88	<b>Azimuth:</b> 360°
<b>Elevation:</b> 1758.7	<b>Dip:</b> -80°

<b>Geologist:</b> E.Ramsay
<b>Logged Date:</b> 10/24/200

Survey Depth	Azimuth	Dip	Comments:
79 m	3 °	-79 °	
170 m	9 °	-79 °	
262 m	7 °	-80 °	
353 m	353 °	-78 °	
445 m	7 °	-79 °	
536 m	5 °	-78 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-56**

From (m)	To (m)	Rock Type	Comments
0	3.05	CASING	Casing, no recovery
3.05	25.1	BASALT	Dark greenish gray to greenish black, porphyritic basalt showing 1-5 millimetric-sized euhedral to subhedral augite phenocrysts in an aphanitic matrix. Weak chloritization throughout. Local epidote traces to 5% pyrite and traces of cpy, mostly as fracture filling but also in Qtz- veins.
25.1	26.4	MAFIC DYKE	Post mineral, mafic, amygdular, aphyric dyke @ 40 t.c.a..
26.4	27.95	BASALT	
27.95	29.4	MAFIC DYKE	Post mineral, mafic dyke, amygdular, aphyric @ 40 t.c.a..
29.4	32	BASALT	
32	32.75	MAFIC DYKE	Post mineral, mafic dyke, amygdular, aphyric @ 45 t.c.a..
32.75	60.45	BASALT	
60.45	60.95	MAFIC DYKE	Post-mineral mafic dyke, amygdular, aphyric, @ 40 to C>A>
60.95	67.9	BASALT	
67.9	70	BASALT MAFIC DYKE	2 post mineral dykes @ 69.70-68.15 m, and 69.25-69.35 m. Both mafic, aphyric and amygdular
70	261	BASALT	
261	263	BLADED FELDSPAR PORPHYRY	
263	321.95	BASALT	
321.95	322.78	MAFIC DYKE	Post mineral amygdular mafic dyke, black, aphyric, @ 40 t.c.a..

Hole Number:

**KN-02-56**

From (m)	To (m)	Rock Type	Comments
322.78	344.73	BASALT	
344.73	356.8	MONZONITE	greenish to locally orange gray, medium-grained monzonite, slightly porphyritic w/ magnetite-rich matrix (1-3%) and very weak epidotization. Qtz-vein @ contact (45 degrees to contact)
356.8	359.66	MAFIC DYKE	Post mineral, aphyric amygdular mafic dyke
359.66	364.65	MONZONITE	Monzonite
364.65	385.64	BASALT	augite-phyric basalt weakly chloritic
385.64	386.11	MONZONITE	Monzonite intrusive breccia showing centimetric angular basalt fragments
386.11	387.36	BASALT	qtz + mt +/- py veins
387.36	387.95	MONZONITE	monzonite dyke
387.95	408.6	BASALT	qtz + mt +/- py veins
408.6	409.15	MAFIC DYKE	
409.15	423.7	BASALT	qtz + mt + minor py
423.7	496.4	MONZONITE	Monzonite, medium-grained, slightly porphyritic, very weakly chloritized
496.4	497.95	BASALT	
497.95	498.55	MONZONITE DYKE	Monzonite w/ qtz -mt + py =trace cpy veins
498.55	514.65	BASALT	Monzonite dykelet between 499.47 - 499.65 m, qtz - mt veins throughout
514.65	517.7	MAFIC DYKE	Post mineral, aphyric, amygdular mafic dyke, upper contact @ 45 t.c.a., lower contact broken
517.7	522.65	MONZONITE	
522.65	523.7	MONZONITE DYKE	Monzonite dykelet between 523.50 -523.67 m, irregular contacts

Hole Number:

**KN-02-56**

From (m)	To (m)	Rock Type	Comments
523.7	532.18	BASALT	
532.18	541.93	MONZONITE	

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	3.05	<b>CASING</b>							
0.00	3.05					Casing, no recovery	56	-2	-2
3.05	25.1	<b>BASALT</b>							
3.05	5.49	Fine-medium-grained porphyritic chloritic	1.0	42		Dark greenish gray to greenish black, porphyritic basalt showing 1-5 millimetric-sized euhedral to subhedral augite phenocrysts in an aphanitic matrix. Weak chloritization throughout. Local epidote traces to 5% pyrite and traces of cpy, mostly as fracture filling but also in qtz- veins.	118975	0.058	0.102
5.49	7.50		0.1	0.1	27		118976	0.166	0.489
7.50	9.14		2.0	0.1	28 CVN	3 Downsized HQ-NQ @9.14 Meters carbonate-qtz-py veins	118977	0.168	0.63
9.14	11.00		0.1		55		118978	0.035	0.218
11.00	13.00	Fine-medium-grained green-grey porphyritic chloritic	1.0	0.1	3 QVN	5 5 Qtz-calcite-pyrite +/- cpy @low angle t.c.a.. Minor zeolite+ calcite filled fractures	118979	0.322	0.736
13.00	15.00		1.0	0.1	5		118980	0.209	0.473
15.00	17.00	Fine-medium-grained porphyritic chloritic	1.0		4		118981	0.066	0.123
17.00	19.00		2.0	0.1	8		118982	0.077	0.855
19.00	21.00		0.5		21		118983	0.069	0.119
21.00	23.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.5		14		118984	0.033	0.155
23.00	25.10		0.5		12 CTC	30 Small black mafic aphyric dykelet between 23.45-23.54m, @ 30 t.c.a.. (Post mineral)	118985	0.007	0.039
25.1	26.4	<b>MAFIC DYKE</b>							
25.10	26.40	Fine-grained amygdular			25 CTC	40 Post mineral, mafic, amygdular, aphyric dyke @ 40 t.c.a..	118986	0.008	0.012
26.4	27.95	<b>BASALT</b>							
26.40	27.95	Fine-medium-grained green-grey porphyritic chloritic epidote	3.0		31		118987	0.097	0.329
27.95	29.4	<b>MAFIC DYKE</b>							

## Hole Number: KN-02-56

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
27.95	29.40	Fine-grained amygdular		24	CTC 40	Post mineral, mafic dyke, amygdular, aphyric @ 40 t.c.a..	118989	0.009	0.011
<b>29.4</b>	<b>32</b>	<b>BASALT</b>							
29.40	31.00	Fine-medium-grained porphyritic chloritic epidote	1.0	3			118990	0.031	0.121
31.00	32.00		1.0	11			118991	0.038	0.091
<b>32</b>	<b>32.75</b>	<b>MAFIC DYKE</b>							
32.00	32.75	Fine-grained amygdular		25	CTC 45	Post mineral, mafic dyke, amygdular, aphyric @ 45 t.c.a..	118992	0.008	-2
<b>32.75</b>	<b>60.45</b>	<b>BASALT</b>							
32.75	34.00	Fine-medium-grained porphyritic chloritic epidote	0.5	40			118993	0.092	0.151
34.00	36.00						118994	0.138	0.215
36.00	38.00						118995	0.1	0.175
38.00	40.00						118996	0.041	0.085
40.00	42.00						118997	0.07	0.121
42.00	44.00						118998	0.058	0.157
44.00	46.00	Fine-medium-grained amygdular chloritic epidote				Amygdular w/ trachytic texture	118999	0.031	0.067
46.00	48.00	Fine-medium-grained dark grey porphyritic chloritic epidote	1.0	1	60		113676	0.051	0.484
48.00	50.00		0.1	0.1	0	56	113677	0.116	0.255
50.00	52.00		1.5		28	CVN 25 2	113678	0.141	0.384
52.00	54.00		0.5	0	27		113679	0.086	0.201
54.00	56.00		0.5	0.1	0	38	113680	0.164	0.28
56.00	58.00		1.0	1	10		113681	0.153	0.268
58.00	60.00		0.1	0	27		113682	0.137	0.327
60.00	60.45		0.5	0.1	0	34	113683	0.155	0.493
<b>60.45</b>	<b>60.95</b>	<b>MAFIC DYKE</b>							
60.45	60.95	Fine-grained amygdular		27	CTC 40	Post-mineral mafic dyke, amygdular, aphyric, @ 40 to C>A>	113684	0.01	-2
<b>60.95</b>	<b>67.9</b>	<b>BASALT</b>							



## Hole Number: KN-02-56

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
60.95	62.00	Fine-medium-grained porphyritic chloritic epidote	0.5	1	55		113685	0.023	0.035
62.00	64.00		0.5	1	48		113686	0.03	0.102
64.00	66.00		0.5	1	38		113687	0.059	0.122
66.00	67.90	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1	1	48		113688	0.087	0.238
67.9	70	<b>BASALT MAFIC DYKE</b>							
67.90	70.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1	1	66	2 post mineral dykes @ 69.70-68.15 m, and 69.25-69.35 m. Both mafic, aphyric and amygdular	113689	0.061	0.066
70	261	<b>BASALT</b>							
70.00	72.00	Fine-medium-grained dark grey porphyritic chloritic epidote	1.0	0.1	2 QVN	50 2	113691	0.182	0.356
72.00	74.00		1.0		35		113692	0.099	0.31
74.00	76.00		2.0	1.0	0		113693	0.343	8.35
76.00	78.00		2.0	0.1	15	Silica cemented breccia 76.70-76.90m.	113694	0.095	0.494
78.00	80.00		0.5		52		113695	0.139	0.355
80.00	82.00		0.1	0.1	78 QVN	50 2 Qtz-mt-py vein	113696	0.171	0.335
82.00	84.00		0.5		75 QVN	30 5 Qtz-mt-py vein weak incipient silification	113697	0.089	0.186
84.00	86.00	Fine-medium-grained porphyritic chloritic epidote	1.0	0.1	60 QVN	4 Qtz-mt-py- +/- cpy vein	113698	0.08	0.378
86.00	88.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1		29 QVN	3	113699	0.216	0.563
88.00	90.00		0.1		50		113700	0.075	0.131
90.00	92.00		0.5		39		113701	0.048	0.104
92.00	94.00		0.1	0.1	72		113702	0.099	0.15
94.00	96.00	Fine-medium-grained dark grey amygdular chloritic epidote	0.1	0.1	54	amygdular	113703	0.043	0.124
96.00	98.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1	0.1	62		113704	0.039	0.108
98.00	100.00		0.1		49		113705	0.078	0.244
100.00	102.00		0.5	0.5	44		113706	0.133	0.166
102.00	104.00		0.5	0.5	60		113707	0.072	0.162
104.00	106.00		0.3		66		113708	0.06	0.118

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
106.00	108.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.5 0.1	53			113709	0.131	0.225
108.00	110.00		1.0 0.5	59			113710	0.124	0.2
110.00	112.00		0.5 0.2	64			113711	0.085	0.172
112.00	114.00		0.5 0.1	42			113712	0.066	0.095
114.00	116.00		0.5 0.2	44			113713	0.145	0.258
116.00	118.00		0.1	62			113714	0.109	0.228
118.00	120.00		2.0 0.1	54			113715	0.151	0.267
120.00	122.00		1.0 0.2	0 15	QVN 40 17	Qtz +/- mt-py vein	113717	0.517	1.275
122.00	124.00		1.0 0.1	1 63			113718	0.201	0.399
124.00	126.00		0.5 0.2	1 44	QVN 2	Qtz-py vein	113719	0.108	0.18
126.00	128.00		0.5 0.1	2 102			113720	0.053	0.067
128.00	130.00		1.0 0.5	1 5	QVN 45 6	Qtz-mt-py- trace cpy vein	113721	0.154	0.189
130.00	132.00		2.0 0.1	1 15	QVN 45 7		113722	0.179	0.293
132.00	134.00		1.0 0.1	1 57			113723	0.182	0.263
134.00	136.00		1.0 0.1	1 12	FLT 7	Minor fault @ unknown angle t.c.a.. (broken zone)	113724	0.111	0.186
136.00	138.00		1.0 0.1	1 60			113725	0.094	0.152
138.00	140.00		0.5 0.1	1 28			113726	0.098	0.152
140.00	142.00		0.5 0.1	1 45			113727	0.21	0.394
142.00	144.00		0.1 0.1	1 7			113728	0.07	0.148
144.00	146.00		0.1	1 57			113729	0.048	0.07
146.00	148.00		0.5 0.1	1 35			113730	0.069	0.084
148.00	150.00		0.5 0.1	1 35			113731	0.083	0.163
150.00	152.00		0.5 0.1	0 21			113732	0.103	0.218
152.00	154.00		0.5 0.3	17	CVN 40 8	Calcite - qtz + py +/- cpy vein	113733	0.21	0.397
154.00	156.00	Fine-medium-grained dark grey porphyritic epidote chloritic	0.5	1 35			113734	0.085	0.136
156.00	158.00		0.1 1.5	0 10	QVN 40 15	Qtz + cpy+ mt +/- py vein	113735	0.395	0.788
158.00	160.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1 0.1	1 56			113736	0.156	0.402

## Hole Number: KN-02-56

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
160.00	162.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1 0.1	1	47		113737	0.098	0.207
162.00	164.00		0.5 0.3	2	54		113738	0.156	0.341
164.00	166.00		0.5 0.2	0	7		113739	0.097	0.228
166.00	168.00		1.0 0.1	1	67		113740	0.147	0.317
168.00	170.00		1.0 0.1	1	29 QVN	20 1	113741	0.093	0.197
170.00	172.00		0.5 0.1	1	51		113743	0.049	0.137
172.00	174.00		0.5 0.5	1	25		113744	0.084	0.156
174.00	176.00		0.1 0.1	1	32		113745	0.023	0.091
176.00	178.00		0.5 0.1	0	28		113746	0.059	0.183
178.00	180.00		0.5 0.1	1	54		113747	0.054	0.18
180.00	182.00		0.3 0.3	1	45		113748	0.032	0.069
182.00	184.00		0.2 0.3	0	23 QVN	55 2	113749	0.028	0.056
184.00	186.00		0.2 0.5	1	125		113750	0.122	0.262
186.00	188.00		0.3 0.5	1	42		113751	0.188	0.395
188.00	190.00		0.1 0.1	1	87		113752	0.142	0.28
190.00	192.00		0.1	2	35 CTC	25	113753	0.144	0.25
192.00	192.85		0.1 0.2	1	27 QVN	25 2	113754	0.125	0.492
						Greenish gray monzonite, showing orange staining along fracture (FeO) showing along veinlets of Qtz+cpy @25 t.c.a..			
192.85	193.80		0.2	1	36	upper contact irregular @ roughly 25 t.c.a..	113755	0.082	0.202
193.80	195.00		0.1	1	46 CTC	25	113756	0.113	0.242
195.00	197.00		1.0 0.1	1	59		113757	0.162	0.427
197.00	199.00		0.1	1	31		113758	0.096	0.224
199.00	201.00		0.1	1	34 QVN	2	113759	0.072	0.175
201.00	203.00		0.1	1	40 QVN	15 6	113760	0.037	0.076
203.00	205.00		0.1	1	45	Qtz - molybdenite veins (traces of molybdenite only)	113761	0.094	0.247
205.00	207.00		1.0 0.5	1	34		113762	0.091	0.199
207.00	209.00		0.1 0.1	1	45		113763	0.033	0.065
209.00	211.00		0.1 0.1	0	28		113764	0.047	0.094

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
211.00	213.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.1 0.1	1	34		113765	0.029	0.051
213.00	215.00		0.1 0.1	0	35		113766	0.025	0.128
215.00	217.00		0.1	0	36		113767	0.057	0.153
217.00	219.00		0.1 0.1	1	36		113769	0.099	0.228
219.00	221.00		0.1 0.1	1	45 QVN 70 7	Qtz - mt veins	113770	0.106	0.178
221.00	223.00		0.1	1	76		113771	0.081	0.152
223.00	225.00		0.2 0.1	1	64		113772	0.042	0.062
225.00	227.00		0.5 0.2	0	12		113773	0.147	0.274
227.00	229.00		0.5 0.3	1	38		113774	0.161	0.391
229.00	231.00		0.1 0.1	1	59	traces of molybdenite	113775	0.093	0.165
231.00	233.00		1.0 0.1	1	41		113776	0.062	0.13
233.00	235.00		0.5 0.1	1	68		113777	0.06	0.138
235.00	237.00		0.1 0.1	1	42		113778	0.11	0.253
237.00	239.00		0.5 0.1	1	96		113779	0.085	0.168
239.00	241.00		0.5 0.1	1	125		113780	0.062	0.158
241.00	243.00		0.5	1	71		113781	0.08	0.174
243.00	245.00		0.1 0.1	1	67		113782	0.065	0.134
245.00	247.00		0.1 0.1	1	62		113783	0.076	0.162
247.00	249.00		0.5 0.1	0	16		113784	0.21	0.378
249.00	251.00		1.0 0.3	1	88		113785	0.098	0.192
251.00	253.00		1.0 0.1	1	72		113786	0.158	0.31
253.00	255.00		0.2 0.3	1	52		113787	0.211	0.411
255.00	257.00		0.5 0.3	1	67		113788	0.113	0.264
257.00	259.00		0.5 0.1	1	108		113789	0.196	0.426
259.00	261.00		0.5	2	155		113790	0.109	0.274
261	263	<b>BLADED FELDSPAR PORPHYRY</b>							
261.00	263.00	Fine-medium-grained dark grey chloritic epidote	0.5 0.2	1	122		113791	0.048	0.088
263	321.95	<b>BASALT</b>							

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
263.00	265.00	Fine-medium-grained dark grey porphyritic chloritic epidote	0.5	0.1	1	106	113792	0.03	0.049
265.00	267.00		1.0	0.1	1	40	113793	0.09	0.194
267.00	269.00		0.5	0.1	1	71	113795	0.115	0.299
269.00	271.00		1.0	0.2	1	44	113796	0.092	0.199
271.00	273.00		3.0		1	74 QVN 25 6	113797	0.044	0.105
273.00	275.00		1.0	0.1	1	49	113798	0.108	0.306
275.00	277.00		0.2		0	22	113799	0.107	0.238
277.00	279.00		0.5	0.1	3	84 MVN 50 2 massive magnetite vein	113800	0.147	0.968
279.00	281.00		0.5	0.1	2	94	113801	0.139	0.342
281.00	283.00		0.5	0.1	1	38 QVN 70 2 Qtz - mt veins	113802	0.247	0.697
283.00	285.00		1.0	0.1	2	100	113803	0.07	0.152
285.00	287.00		0.5		1	69	113804	0.065	0.168
287.00	289.00		0.1		1	70	113805	0.081	0.197
289.00	291.00		0.5	1.0	2	78	113806	0.153	0.322
291.00	293.00		0.5	0.5	1	65	113807	0.114	0.231
293.00	295.00		0.5	1.0	2	83	113808	0.368	1.045
295.00	297.00		1.0	0.1	1	48 FLT 45 6 Minor brittle fault w/ zeolite-carbonate infilling and gougy slip planer	113809	0.124	0.295
297.00	299.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.5	0.1	1	44	113810	0.093	0.19
299.00	301.00		1.0		1	55	113811	0.117	0.293
301.00	303.00		0.5		1	59	113812	0.103	0.246
303.00	305.00		0.4	0.1	3	370	113813	0.136	0.416
305.00	307.00		1.0	0.1	1	50	113814	0.197	0.581
307.00	309.00		0.2	0.2	5	1925 MVN 45 10 Qtz - mt veins	113815	0.131	0.405
309.00	311.00		2.0	0.5	1	56	113816	0.262	0.693
311.00	313.00		0.5	0.1	1	68	113817	0.173	0.52
313.00	315.00		0.1	0.1	1	62	113818	0.072	0.198
315.00	317.00		0.5		1	51	113819	0.042	0.103

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
317.00	319.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	1	75		113821	0.111	0.229
319.00	321.00			1	65		113822	0.091	0.211
321.00	321.95		1.0	1	28 QVN	7 Qtz + mt + py veins	113823	0.299	0.742
<b>321.95</b>	<b>322.78</b>	<b>MAFIC DYKE</b>							
321.95	322.78	Fine-medium-grained amygdular		42	CTC	40 Post mineral amygdular mafic dyke, black, aphyric, @ 40 t.c.a..	113824	0.013	0.023
<b>322.78</b>	<b>344.73</b>	<b>BASALT</b>							
322.78	324.00	Fine-medium-grained green-grey porphyritic chloritic epidote		1	111		113825	0.106	0.279
324.00	326.00		0.5	0.1	1	69 QVN 20 4 Qtz + mt + py + cpy vein	113826	0.156	0.351
326.00	328.00		0.1	1	73		113827	0.07	0.132
328.00	330.00		2.0	2	131 QVN	30 4 Qtz + mt + py vein	113828	0.044	0.106
330.00	332.00		0.1	0.2	2	94 FLT 5 10 minor brittle fault @ low angle t.c.a..	113829	0.11	0.143
332.00	334.00		0.1	0.5	2	102 QVN 8 Qtz + mt + cpy veins	113830	0.054	0.314
334.00	336.00		0.5	2	103 QVN	2 Qtz + mt + py vein	113831	0.058	0.171
336.00	338.00		1.0	0.1	2	93 QVN 5 Qtz + mt + py +/- cpy veins	113832	0.044	0.101
338.00	340.00		0.1	3	190 QVN	8 Qtz + mt veins	113833	0.059	0.176
340.00	342.00		0.1	3	140 CTC	45 narrow monzonite dykelet 340.70 -340.75 m. @ 45 t.c.a..	113834	0.027	0.067
342.00	344.00		2	89	QVN	20 3 irregular Qtz + chl + mt vein	113835	0.011	0.038
344.00	344.73		2	109			113836	0.023	0.075
<b>344.73</b>	<b>356.8</b>	<b>MONZONITE</b>							
344.73	346.00	Medium-fine-grained green-grey porphyritic epidote	0.5	3	40 QVN	45 8 greenish to locally orange gray, medium-grained monzonite, slightly porphyritic w/ magnetite-rich matrix (1-3%) and very weak epidotization. Qtz-vein @ contact (45 degrees to contact)	113837	0.013	0.036
346.00	348.00			3	98 QVN	45 1	113838	0.009	0.016
348.00	350.00			4	137		113839	0.019	0.049
350.00	352.00			1	64		113840	0.012	0.024
352.00	354.00			1	35		113841	0.011	0.022
354.00	356.00	Medium-fine-grained orange grey porphyritic epidote	0.1	1	47		113842	0.009	0.02

## Hole Number: KN-02-56

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
356.00	356.80	Medium-fine-grained orange grey porphyritic epidote	0.2	1	34		113843	0.007	0.015
<b>356.8</b>	<b>359.66</b>	<b>MAFIC DYKE</b>							
356.80	358.00	Fine-grained amygdular			43 CTC 75	Post mineral, aphyric amygdular mafic dyke	113844	0.007	-2
358.00	359.66				45 CTC 30		113845	0.008	-2
<b>359.66</b>	<b>364.65</b>	<b>MONZONITE</b>							
359.66	361.00	Medium-fine-grained green-grey porphyritic epidote	0.1	1	63	Monzonite	113847	0.006	0.024
361.00	363.00		0.5	1	63		113848	0.009	0.028
363.00	364.65		0.5	1	63 CTC 30	contact w/ next unit @ 30 t.c.a.. (very irregular)	113849	0.013	0.041
<b>364.65</b>	<b>385.64</b>	<b>BASALT</b>							
364.65	366.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	3	229 QVN	7 augite- phyric basalt weakly chloritic	113850	0.023	0.04
366.00	368.00		0.1	2	129 QVN	6 qtz + mt veins	113851	0.031	0.104
368.00	370.00		0.5	0.1	4 155 QVN	30 qtz + mt + py +/- cpy veins	113852	0.064	0.148
370.00	372.00		2.0	0.1	6 213 QVN	30	113853	0.061	0.151
372.00	374.00		2.0	0.1	6 151 QVN	30	113854	0.033	0.064
374.00	376.00		1.0	0.1	3 105 QVN	10	113855	0.025	0.049
376.00	378.00		1.0	0.1	3 197 QVN	10	113856	0.016	0.054
378.00	378.55		1.0	2	127 QVN	35 Monzonite dyke 378.3 - 378.51 m, qtz +mt + py veins	113857	0.062	0.141
378.55	380.00		2.0	2	102 QVN	7 qtz + mt +/- py veins	113858	0.069	0.302
380.00	382.00		2.0	2	119 QVN	8	113859	0.039	0.208
382.00	384.00		0.1	3	166 QVN	20	113860	0.014	0.045
384.00	385.64		0.1	1	94 QVN	8	113861	0.027	0.077
<b>385.64</b>	<b>386.11</b>	<b>MONZONITE</b>							
385.64	386.11	Medium-coarse-grained green-grey chloritic epidote		3	143 QVN	2 Monzonite intrusive breccia showing centimetric angular basalt fragments	113862	0.04	0.138
<b>386.11</b>	<b>387.36</b>	<b>BASALT</b>							
386.11	387.36	Fine-medium-grained green-grey porphyritic chloritic epidote	1.0	4	197 QVN	10 qtz + mt +/- py veins	113863	0.017	0.06
<b>387.36</b>	<b>387.95</b>	<b>MONZONITE</b>							

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
387.36	387.95	Medium-fine-grained orange grey porphyritic epidote	0.5	1	50 QVN	2 monzonite dyke	113864	0.02	0.087
<b>387.95</b>	<b>408.6</b>	<b>BASALT</b>							
387.95	390.00	Fine-medium-grained green-grey porphyritic chloritic epidote	1.0	5	233 QVN	17 qtz + mt +/- py veins	113865	0.016	0.037
390.00	392.00		0.5	<b>0.1</b>	1 76 QVN	20	113866	0.017	0.062
392.00	394.00		0.5	3	133 QVN	10	113867	0.008	0.029
394.00	396.00		0.1	2	104 QVN	4	113868	0.027	0.109
396.00	398.00		0.2	1	66 QVN	4	113869	0.012	0.039
398.00	400.00			1	55 QVN	15	113870	0.01	0.022
400.00	402.00		0.5	0	18 QVN	3	113871	0.017	0.063
402.00	404.00		0.1	1	46 QVN	5	113873	0.026	0.153
404.00	406.00		0.1	1	84 QVN	9	113874	0.009	0.031
406.00	408.00		1.0	<b>0.1</b>	1 72 QVN	4	113875	0.021	0.052
408.00	408.60		0.1	2	106 QVN	20	113876	0.011	0.028
<b>408.6</b>	<b>409.15</b>	<b>MAFIC DYKE</b>							
408.60	409.15	Fine-grained massive			51		113877	0.006	-2
<b>409.15</b>	<b>423.7</b>	<b>BASALT</b>							
409.15	411.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	1	44 QVN	10 qtz + mt + minor py	113878	0.013	0.048
411.00	413.00		0.5	<b>0.1</b>	1 48 QVN	20	113879	0.078	0.115
413.00	415.00		1.0	2	104 QVN	7	113880	0.034	0.072
415.00	417.00		0.1	5	413 QVN	20	113881	0.018	0.075
417.00	419.00		0.1	2	109 QVN	20	113882	0.016	0.036
419.00	421.00		0.1	2	111 QVN	12	113883	0.007	0.023
421.00	423.00		0.1	<b>0.5</b>	2 140 QVN	15	113884	0.011	0.046
423.00	423.70		0.1	3	152 QVN	12	113885	0.006	0.048
<b>423.7</b>	<b>496.4</b>	<b>MONZONITE</b>							
423.70	425.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.1	1	62 QVN	10 Monzonite, medium-grained, slightly porphyritic, very weakly chloritized	113886	0.013	0.038



**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
425.00	427.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.1	1	52 QVN	20	qtz + mt veins	113887	0.012	0.025
427.00	429.00	Medium-fine-grained green-grey porphyritic chloritic epidote	0.1	2	185 QVN	5		113888	0.004	0.02
429.00	431.00		0.1	1	94 QVN	4		113889	0.009	0.028
431.00	433.00		0.1	1	56 QVN	5		113890	0.008	0.017
433.00	435.00		0.1	1	81 QVN	6		113891	0.012	0.035
435.00	437.00		0.1	3	126 QVN	5	qtz + mt +/- py veins	113892	0.006	0.013
437.00	439.00		1.0	1	76 QVN	6		113893	0.008	0.016
439.00	441.00		0.1	3	124 QVN	5		113894	0.012	0.034
441.00	443.00		0.1	4	172 QVN	5		113895	0.013	0.022
443.00	445.00		0.2	1	65 QVN	15		113896	0.021	0.029
445.00	447.00		1.0	3	150 QVN	10		113897	0.033	0.053
447.00	449.00		0.5	4	162 QVN	8		113899	0.013	0.093
449.00	451.00		0.5	3	110 QVN	8		113900	0.016	0.052
451.00	453.00		0.5	5	144 QVN	15		113901	0.028	0.071
453.00	455.00		0.5	5	126 QVN	12		113902	0.02	0.056
455.00	457.00		1.0	6	201 QVN	7		113903	0.027	0.039
457.00	459.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.5	5	73 QVN	10		113904	0.02	0.033
459.00	461.00	Medium-fine-grained green-grey porphyritic chloritic epidote	1.0	4	52 QVN	12		113905	0.03	0.052
461.00	463.00		0.1	2	78 QVN	6		113906	0.018	0.042
463.00	465.00		0.5	6	186 QVN	50		113907	0.029	0.065
465.00	467.00		0.5	10	211 QVN	30		113908	0.008	0.027
467.00	469.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.1	3	66 QVN	8		113909	0.007	0.02
469.00	471.00	Medium-fine-grained green-grey porphyritic chloritic epidote	2.0	2	70 QVN	4		113910	0.009	0.013
471.00	473.00		0.1	3	101 QVN	10	Traces of molybdenite in qtz - mt vein	113911	0.011	0.035
473.00	475.00		1.0	3	109 QVN	6	qtz + mt veins	113912	0.023	0.076
475.00	477.00		0.1	5	155 QVN	5		113913	0.012	0.024

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
477.00	479.00	Medium-fine-grained green-grey porphyritic chloritic epidote	1.0	3	94 QVN	5	113914	0.007	0.028
479.00	481.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.5	5	146 QVN	3	113915	0.017	0.053
481.00	483.00		0.5	5	81 QVN	10	113916	0.022	0.043
483.00	485.00		0.1	4	94 QVN	5	113917	0.015	0.027
485.00	487.00	Medium-fine-grained green-grey porphyritic chloritic epidote	0.1	3	83 QVN	5	113918	0.013	0.03
487.00	489.00		0.1	4	104 QVN	8	113919	0.025	0.092
489.00	491.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.1	3	92 QVN	4	113920	0.009	0.035
491.00	493.00		0.3	2	61 QVN	6	113921	0.008	0.031
493.00	495.00	Medium-fine-grained green-grey porphyritic chloritic epidote	0.3	2	84 QVN	3	113922	0.008	0.02
495.00	496.40		0.1	3	110 QVN	2	113923	0.01	0.032
496.4	497.95	<b>BASALT</b>							
496.40	497.95	Fine-medium-grained green-grey porphyritic chloritic	1.0	0.1	5 127 QVN	60	113925	0.035	0.082
497.95	498.55	<b>MONZONITE DYKE</b>							
497.95	498.55	Medium-fine-grained green-grey porphyritic chloritic epidote	2.0	0.1	3 38 QVN	50	113926	0.06	0.085
498.55	514.65	<b>BASALT</b>							
498.55	500.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	5	155 QVN	5	113927	0.018	0.042
500.00	502.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	5	189 QVN	5	113928	0.03	0.116
502.00	504.00		0.1	0.1	5 154 QVN	5	113929	0.029	0.147
504.00	506.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	2	72 QVN	8	113930	0.042	0.1
506.00	508.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	1	60 QVN	3	113931	0.031	0.109
508.00	510.00		0.1	3	156 QVN	5	113932	0.02	0.065
510.00	512.00		0.5	5	215 QVN	1	113933	0.021	0.101
512.00	514.00		1.0	5	212 QVN	3	113934	0.066	0.11

**Hole Number: KN-02-56**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
514.00	514.65	Fine-medium-grained green-grey porphyritic chloritic	0.2	2	94 QVN	30	113935	0.038	0.096
514.65	517.7	<b>MAFIC DYKE</b>							
514.65	516.00	Fine-grained amygdular		31	CTC	Post mineral, aphyric, amygdular mafic dyke, upper contact @ 45 t.c.a., lower contact broken	113936	0.008	0.017
516.00	517.70			30			113937	0.007	-2
517.7	522.65	<b>MONZONITE</b>							
517.70	519.00	Medium-fine-grained orange grey porphyritic chloritic epidote	1.0	1	43 QVN	1	113938	0.03	0.05
519.00	521.00		0.5	1	27 QVN	5	113939	0.024	0.047
521.00	522.65	Medium-fine-grained green-grey porphyritic chloritic epidote	0.5	3	96 QVN	5 transparent gypsum filling vugs in anhydrite-lined cavities	113940	0.03	0.064
522.65	523.7	<b>MONZONITE DYKE</b>							
522.65	523.70	Fine-medium-grained green-grey porphyritic chloritic epidote	0.1	0.1	3 75 QVN	10 Monzonite dykelet between 523.50 -523.67 m, irregular contacts	113941	0.014	0.055
523.7	532.18	<b>BASALT</b>							
523.70	525.00	Fine-medium-grained green-grey porphyritic chloritic epidote	0.2	0.1	2 49 QVN	5	113942	0.022	0.047
525.00	527.00		0.5	0.1	6 248 QVN	5	113943	0.012	0.036
527.00	529.00		0.5	0.1	4 151 QVN	5	113944	0.058	0.182
529.00	531.00		1.0	0.1	4 159 QVN	1	113945	0.047	0.127
531.00	532.18		0.5		3 104 QVN	2	113946	0.017	0.078
532.18	541.93	<b>MONZONITE</b>							
532.18	534.00	Medium-fine-grained green-grey porphyritic chloritic epidote	1.0	1	25 QVN	1	113947	0.03	0.035
534.00	536.00	Medium-fine-grained orange grey porphyritic chloritic epidote	0.1	1	26 QVN	2	113948	0.011	0.015
536.00	538.00	Medium-fine-grained green-grey porphyritic chloritic epidote	0.1	1	54 QVN	4	113949	0.02	0.032
538.00	540.00		0.1	1	25 QVN	4	113951	0.024	0.035
540.00	541.93		0.5	1	31 QVN	1 EOH	113952	0.014	0.021
541.93		EOH							

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-57**

Northing:	16023.9	Total Depth:	242.91m
Easting:	10939.8	Azimuth:	93 <sup>o</sup>
Elevation:	1695.9	Dip:	-60 <sup>o</sup>

Geologist:	J.Mazvihwa
Logged Date:	11/14/200

Survey Depth	Azimuth	Dip	Comments:
61 m	90 <sup>o</sup>	-61 <sup>o</sup>	
155 m	91 <sup>o</sup>	-62 <sup>o</sup>	
246 m	100 <sup>o</sup>	-62 <sup>o</sup>	
338 m	95 <sup>o</sup>	-62 <sup>o</sup>	
429 m	98 <sup>o</sup>	-63 <sup>o</sup>	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-57**

From (m)	To (m)	Rock Type	Comments
0	6.1	CASING	Hole encountered ground problems and was wedged and continued as KN-02-57B.
6.1	19	QTZ-SER-PY ALTERED ZONE	broken
19	241.6	QTZ-SER-PY ALTERED ZONE POLYLITHIC TUFF	Darker grey fragments, locally associated with weak to moderate sericite alteration; Bladed fspar porphyry fragments common. Unit possibly Toodoggone poly-lithic tuff. Qtz eyes visible(?) - high silicified with sericite-pyrite.
241.6	242.93	MONZONITE	broken

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	6.1	<b>CASING</b>							
0.00	6.10					Hole encountered ground problems and was wedged and continued as KN-02-57B.	57	-2	-2
6.1	19	<b>QTZ-SER-PY ALTERED ZONE</b>							
6.10	8.23	Fine-medium-grained light grey silicic sericitic	5.0	0	QVN 0	broken	120001	0	0
8.23	9.76		4.0	0	QVN 5	Slightly more competent - broken in places.	120002	0	0
9.76	11.28		5.0	0	QVN 70	broken	120003	0	0
11.28	12.80		5.0	0	QVN 80	3 Fuchsite in grey 2cm dia. Fragment; at 11.67m and 12.3m.	120004	0	0
12.80	14.33		3.0	0	QVN 80	3 Minor broken zones - possible fault zone at about 13.0m.	120005	0	0
14.33	15.85		2.0	0	QVN 70	1 Slight decrease in py content; generally massive texture with local granular texture.	120006	0	0
15.85	17.38		2.0	0	QVN 90	3 Clay lined joint planes from 16.1m; locally associated with py aggregates.	120007	0	0
17.38	19.00		2.0	0	QVN 60	1 Local granular texture - rare qtz veining.	120008	0	0
19	241.6	<b>QTZ-SER-PY ALTERED ZONE POLYLITHIC TUFF</b>							
19.00	21.00	Fine-medium-grained medium grey fragmental silicic sericitic	5.0	0	QVN 80	3 Darker grey fragments, locally associated with weak to moderate sericite alteration; Bladed fspar porphyry fragments common. Unit possibly Toodoggone poly-lithic tuff. Qtz eyes visible(?) - high silicified with sericite-pyrite.	120009	0	0
21.00	23.00		5.0	0	QVN 90	1 22.05m - fuchsite fragment.	120010	0	0
23.00	25.00		5.0	0	QVN 80	1 Clay lined joint planes from 23.3 - 23.6m and at 23.0m	120011	0	0
25.00	27.00		5.0	0	QVN 80	1 Clay -py lining joint planes; appears brecciated in places; fragment are poly-lithic. Matriz is qtz-ser ith diss py.	120012	0	0
27.00	29.00		3.0	0	QVN 80	1 Lt grey granular portion; associated with slightly less py content from 28-29m.	120013	0	0
29.00	31.00		3.0	0	QVN 10	1 Pale apple green in altered PLT matrix; diss py and clay lined fractures.	120014	0	0

**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
31.00	33.00	Fine-medium-grained medium grey fragmental silicic sericitic	5.0	0	QVN 90 2	Increased BFP fragments. Qtz-calcite-clay vein at about 32.4m about 30 deg to CA.	120015	0	0
33.00	34.50		5.0	0	QVN 80 1		120016	0	0
34.50	35.66	Fine-medium-grained light grey silicic sericitic	3.0	0	QVN 90 1	Granular texture; disseminated pyrite aggregates; dyke.	120017	0	0
35.66	37.00	Fine-medium-grained medium grey fragmental silicic sericitic	3.0	0	QVN 5 1	Fragmental outlines barely visible.	120018	0	0
37.00	38.00	Fine-medium-grained light grey silicic sericitic	5.0	0	QVN 90 2	Milky white qtz vein - vuggy texture with diss py. Brecciated portion from 37.9 - 38.0m	120019	0	0
38.00	38.86	Fine-medium-grained medium grey silicic sericitic	7.0	0	QVN 0 1	Qtz eyes visible locally.	120020	0	0
38.86	41.10		5.0	0	QVN 80 1	Mottled texture in places - py aggregates with rare veining.	120021	0	0
41.10	43.00		7.0	0	QVN 90 2	42.95m; qtz-cal vein. Rare fault plane lined by white soft clay.	120022	0	0
43.00	45.00		7.0	0	QVN 70 1	Qtz phenos present.	120023	0	0
45.00	47.00		4.0	0	QVN 80 1		120024	0	0
47.00	49.00		4.0	0	QVN 80 1	Slight increase in pyrite content.	120025	0	0
49.00	51.00		4.0	0	QVN 90 1	Faulted portion from 50.4 - 51.0m; clay lined.	120027	0	0
51.00	53.00	Fine-medium-grained light grey silicic sericitic	5.0	0	QVN 45 2	Broken portions with clay lined fault planes; Py vein at about 51.9m and 52.56 to 52.70m	120028	0	0
53.00	55.00	Fine-medium-grained medium grey silicic sericitic	15.0	0	QTVN 0 1	Up to 80% pyrite between 53.34 and 53.54m.	120029	0	0
55.00	57.00	Fine-medium-grained light grey silicic sericitic	5.0	0	QVN 70 1	Minor local stringers, plus fuchsite.	120030	0	0
57.00	59.00		3.0	0	QTVN 80 1	Generally massive with local granular portions. Diss pyrite and aggregates.	120031	0	0
59.00	61.00		3.0	0	QVN 90 2	Qtz-talc-pyrite vein at 59.1m.	120032	0	0
61.00	63.00		3.0	0	QVN 10 1	Porphyritic texture - altered intrusion? - vuggy dissolution textures and subtle fragment boundaries.	120033	0	0
63.00	65.00		3.0	1	QVN 45 1		120034	0	0
65.00	67.00		5.0	0	QTVN 40 1	Rare joints lined with softclay-like material. Broken section.	120035	0	0
67.00	69.00		7.0	1	QTVN 20 3	67.55 - 67.52m qtz-talc vein @ 50 deg.	120036	0	0
69.00	70.19		7.0	0	QVN 50 3	61.7m qtz-talc vein.	120037	0	0

**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
70.19	71.05	Fine-medium-grained dark grey silicic	5.0	0	QVN 90 5	Faint pink alteration; mostly dark grey and silicified.	120038	0	0
71.05	73.00	Fine-medium-grained light grey silicic sericitic	7.0	0	QTVN 80 2	Poly lithic fragments visible - slight increase in pyrite content.	120039	0	0
73.00	75.00		7.0	0	QVN 80 1		120040	0	0
75.00	77.00		5.0	1	QVN 0 2		120041	0	0
77.00	79.00		3.0	0	QVN 90 1	Massive granular texture.	120042	0	0
79.00	81.00	Fine-medium-grained light grey fragmental silicic sericitic	5.0	0	QVN 90 1	Fuchsite present in places.	120043	0	0
81.00	83.00		3.0	0	QVN 80 1	Locally mottled and brecciated; broken zones.	120044	0	0
83.00	85.00		3.0	0	QVN 90 5		120045	0	0
85.00	87.00		3.0		QVN		120046	0	0
87.00	89.00		4.0	0	QVN 60 1		120047	0	0
89.00	91.00		4.0		QVN	Slightly mottled texture	120048	0	0
91.00	93.00		4.0	0	QVN 90 3	Broken fault zone with clay-pyrite on joints; py vein at 92.6m.	120049	0	0
93.00	95.00		3.0	0	QVN 50 1	Fuchsite present in places.	120050	0	0
95.00	97.00		2.0	0	QVN 70 1	98.2-99m; vuggy section; porphyritic section 97-98.2m - monzonite fragment in PLT.	120051	0	0
97.00	99.00		2.0	0	QVN 90 1		120053	0	0
99.00	101.00		6.0	0	QVN 90 1	Highly silicified and sericite alteration; very pyritic in both matrix and fragments. Qtz phenos in matrix of PLT.	120054	0	0
101.00	103.00		6.0	0	QVN 70 1		120055	0	0
103.00	105.17		5.0	0	QVN 80 1		120056	0	0
105.17	107.00		4.0	0	QVN 80 1	Mottled texture in places - py aggregates with rare veining.	120057	0	0
107.00	109.00		4.0	0	QVN 40 1	Local rare vuggy dissolution features.	120058	0	0
109.00	111.00		5.0		QVN 1	Porphyritic monzonite fragment present.	120059	0	0
111.00	113.00		5.0	1	QVN 90 1	Local, mottled fragment boundaries obliterated.	120060	0	0
113.00	115.00		10.0	0	QVN 45 3	Rare qtz phenos present.	120061	0	0
115.00	117.00		7.0	0	QVN 80 3	Monzodiorite fragment with porphyritic texture.	120062	0	0
117.00	119.00		10.0	0	QVN 70 5	Strongly silicified broken zone; slight increase in vein.	120063	0	0



**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
119.00	121.00	Fine-medium-grained light grey fragmental silicic sericitic	7.0	0	QVN 80 5	Mottled texture in places - diss pyrite.	120064	0	0
121.00	123.00	Fine-medium-grained light grey porphyritic silicic sericitic	5.0	0	QVN 90 5	Porphyritic altered monzonite fragments.	120065	0	0
123.00	125.00		7.0	0	QVN 80 5	Rare fuchsite fragments - sample is as above.	120066	0	0
125.00	127.00		7.0	0	QVN 70 5	Locally porphyritic mottled in places.	120067	0	0
127.00	129.00	Fine-medium-grained light grey fragmental silicic sericitic	7.0	0	QVN 60 1		120068	0	0
129.00	131.00	Fine-medium-grained light grey silicic sericitic	5.0	0	QVN 50 1	Fuchsite visible locally;	120069	0	0
131.00	133.00	Fine-medium-grained light grey porphyritic silicic sericitic	7.0	0	QVN 90 2	Interval consists of qsp altered porphyritic monzonite.	120070	0	0
133.00	135.00	Fine-medium-grained light grey silicic sericitic	7.0	1	QVN 90 5		120071	0	0
135.00	137.00		5.0	0	QVN 45 5	Massive pyrite between 136.78-137.0m; discontinuous qtz veining.	120072	0	0
137.00	139.00	Fine-medium-grained light grey fragmental silicic sericitic	5.0	0	QVN 80 2	Rare fuchsite in PLT matrix.	120073	0	0
139.00	141.00		5.0	0	QVN 90 3	Qtz stringers with calcite alteration.	120074	0	0
141.00	143.00		4.0	0	QVN 70 4	Porphyritic texture - monzonite fragments in PLT.	120075	0	0
143.00	145.00		7.0	0	QVN 30 2		120076	0	0
145.00	147.00		7.0	0	QVN 20 5	Local vuggy structures; porphyritic qsp altered monzonite fragments; broken section.	120077	0	0
147.00	149.00		5.0	1	QVN 70 5		120079	0	0
149.00	151.00		7.0	0	QVN 80 3	Fuchsite in PLT; cryptic fragment boundaries.	120080	0	0
151.00	153.00		6.0	0	QVN 90 2	Local broken zones associated with clay alteration.	120081	0	0
153.00	155.00	Fine-medium-grained light grey silicic sericitic	6.0	0	QVN 90 5		120082	0	0
155.00	157.00	Fine-medium-grained light grey fragmental silicic sericitic	7.0	0	QVN 70 7	Monzonite qsp altered fragment.	120083	0	0
157.00	159.00	Fine-medium-grained light grey silicic sericitic	10.0	0	QVN 70 10	Massive pyrite associated with qtz veining.	120084	0	0
159.00	161.00		5.0	0	QVN 70 5	160.5 - 161.0m; clay altered fault zone.	120085	0	0
161.00	163.00	Fine-medium-grained light grey porphyritic silicic sericitic	5.0	1	QVN 80 1	Monzodiorite altered porphyritic altered fragments in PLT; broken fault zone.	120086	0	0

**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
163.00	165.00	Fine-medium-grained light grey porphyritic silicic sericitic	5.0	0	QVN 70 1		120087	0	0
165.00	167.00		5.0	0	QVN 90 1		120088	0	0
167.00	169.00		5.0	0	QVN 60 1		120089	0	0
169.00	171.00		6.0	0	QVN 60 1	Broken section.	120090	0	0
171.00	173.00	Fine-medium-grained light grey fragmental silicic sericitic	5.0	0	QVN 50 1	Highly silicified and sericite altered polyolithic fragmental; fragments of monzonite - abundant disseminated py.	120091	0	0
173.00	175.00		5.0	0	QVN 80 3		120092	0	0
175.00	177.00		4.0	0	QVN 90 1	Porphyritic monzonite fragment - qsp alteration.	120093	0	0
177.00	179.00	Fine-medium-grained light grey porphyritic silicic sericitic	3.0	1	QVN 30 1	Rare fuchsite in unit; rare py stringers - porphyritic monzonite fragments.	120094	0	0
179.00	181.00	Fine-medium-grained light grey fragmental silicic sericitic	5.0	0	QVN 70 3		120095	0	0
181.00	183.00	Fine-medium-grained light grey porphyritic silicic sericitic	5.0	0	QVN 0 3	Fuchsite present in places.	120096	0	0
183.00	185.00		5.0	0	QVN 80 3		120097	0	0
185.00	187.00		5.0	0	QVN 90 2		120098	0	0
187.00	189.00		5.0	0	QVN 40 2	Pyrite vein at 30 deg to CA.	120099	0	0
189.00	191.00		4.0	0	QVN 60 5		120100	0	0
191.00	193.00		7.0	0	QVN 80 5		120101	0	0
193.00	195.00		6.0	0	QVN 90 5		120102	0	0
195.00	197.00		4.0	0	QVN 30 7	Broken highly faulted pyrite veining at 30 deg to CA.	120103	0	0
197.00	199.00		3.0	1	QVN 80 3		120105	0	0
199.00	201.00		4.0	0	QVN 70 2		120106	0	0
201.00	203.00		4.0	0	QVN 70 2	Local broken portion.	120107	0	0
203.00	205.00		5.0	0	QVN 80 1		120108	0	0
205.00	207.00		5.0	0	QVN 80 3		120109	0	0
207.00	209.00		7.0	0	QVN 90 5		120110	0	0
209.00	211.00		3.0	0	QVN 90 3	Porphyritic monzonite protolith overprinted by alteration.	120111	0	0
211.00	213.00		4.0	0	QVN 30 3		120112	0	0
213.00	215.00		5.0	0	QVN 90 1		120113	0	0

**Hole Number: KN-02-57**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
215.00	217.00	Fine-medium-grained light grey porphyritic silicic sericitic	5.0	0	QVN 80 3	Monzonite fragments; pyrite lining joints.	120114	0	0
217.00	219.00		6.0	1	QVN 0 5		120115	0	0
219.00	221.00		3.0	0	QVN 80 1		120116	0	0
221.00	223.00		4.0	0	QVN 80 2		120117	0	0
223.00	225.00		6.0	0	QVN 10 5		120118	0	0
225.00	227.00		5.0	0	QVN 40 2	Porphyritic texture - pyrite veining.	120119	0	0
227.00	229.00		3.0	0	QVN 70 1		120120	0	0
229.00	231.00		3.0	1	QVN 90 2		120121	0	0
231.00	233.00		3.0	0	QVN 5 1		120122	0	0
233.00	235.00		3.0	0	QVN 90 1		120123	0	0
235.00	236.53	Fine-medium-grained light grey silicic sericitic	3.0	0	QVN 80 1		120124	0	0
236.53	238.00		2.0	0	FLT 50	Clay alteration associated with fault zone	120125	0	0
238.00	240.00		2.0	0	FLT 80		120126	0	0
240.00	241.60		2.0	0	FLT	broken	120127	0	0
241.6	242.93	<b>MONZONITE</b>							
241.60	242.93	Fine-medium-grained dark green porphyritic		15	QZVN 10	broken	120128	0	0
242.93		EOH							

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-57B**

<b>Northing:</b> 16023.9	<b>Total Depth:</b> 429m
<b>Easting:</b> 10939.8	<b>Azimuth:</b> 93 °
<b>Elevation:</b> 1695.9	<b>Dip:</b> -60 °

<b>Geologist:</b> B. LaPeare
<b>Logged Date:</b> 11/14/200

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
61 m	90 °	-61 °	
155 m	91 °	-62 °	
246 m	100 °	-62 °	
338 m	95 °	-62 °	
429 m	98 °	-63 °	

# Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-57B**

From (m)	To (m)	Rock Type	Comments
0	219.2	PREVIOUSLY DRILLED	See log KN-02-57
219.2	240.2	ALTERED FLOW TOODOGGONE	219.20-240.2 m: pervasive and complete phyllic alt'n thruout entire unit; locally exhibits bx/fragmental texture
240.2	260.7	SYENITE DYKE	Upper 40 cm as well developed gouge gradational into rubbly core w/ no gouge
260.7	429	ALTERED FLOW TOODOGGONE	Gouge best developed at contact w/ lower phyllic alt'd vol'c; minor gouge on local jnt planes below contact

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-57B**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	219.2	<b>PREVIOUSLY DRILLED</b>							
0.00	219.20					See log KN-02-57	57B	0	0
219.2	240.2	<b>ALTERED FLOW TOODOGGONE</b>							
219.20	221.00	Fine-coarse grained light grey mottled sericitic silicic	1.0	1		219.20-240.2 m: pervasive and complete phyllic alt'n thruout entire unit; locally exhibits bx/fragmental texture	119827	0	0
221.00	223.00		2.0	0		Protolith completely destroyed but probably massive intermediate flows locally autobrecciated	119828	0	0
223.00	225.00		2.0	0		However unit may also be an agglomerate	119829	0	0
225.00	227.00		3.0	0		Except for local py stringers no other veining is present	119830	0	0
227.00	229.00		2.0	0		Py also occurs throughout as disseminated	119831	0	0
229.00	231.00		4.0	0		Texture through out is highly consistent	119832	0	0
231.00	233.00		1.0	0 FZ	70 5	10 cm width of wkly developed gouge @ 232.90;	119833	0	0
233.00	235.00		4.0	0			119834	0	0
235.00	237.00		2.0	0 FZ	70 5	10 cm width of wkly developed gouge @ 235.60; rubbly core @ 236.5 - 237.00	119835	0	0
237.00	239.00		1.0	1		Competent interval	119836	0	0
239.00	240.20		1.0	1 FZ	55 30	Locally exhibits gouge and best developed at lower 25 cm at contact w/ lower syenite	119837	0	0
240.2	260.7	<b>SYENITE DYKE</b>							
240.20	241.00	Fine-medium-grained grey pink porphyritic chloritic zeolite		17 FZ	55 50	Upper 40 cm as well developed gouge gradational into rubbly core w/ no gouge	119838	0	0
241.00	243.00			20 ZC	15	240.2-260.7: typical pinkish fine/med gr subvolcanic w/ anhedral feldspars within a chloritic matrix	119839	0	0
243.00	245.00			6 ZC	25	Unit is wkly/mod magnetic	119840	0	0
245.00	247.00			13 ZC	35	Pinkish colour from mod/high degree of zeo +/- calc vnls/stringers	119841	0	0
247.00	249.00			11 ZC	15	Clay and/or hematite on local jnt planes	119842	0	0
249.00	251.00			14 ZC	15		119843	0	0

**Hole Number: KN-02-57B**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
251.00	253.00	Fine-medium-grained grey pink porphyritic chloritic zeolite		19	ZC 10		119844	0	0
253.00	255.00			16	ZC 65 30	Sinuuous zeo stringers mostly at 60-70m deg ca	119845	0	0
255.00	257.00	Fine-medium-grained dark grey brecciated chloritic		12	C 5	Lower part of unit though magnetic exhibits no zeolite	119846	0	0
257.00	259.00			25	C 7	Variable between fine gr dk grey unit and typical med gr syenite	119847	0	0
259.00	260.70			16	C 7		119848	0	0
260.7	429	<b>ALTERED FLOW TOODOGGONE</b>							
260.70	261.80	Fine-coarse grained light grey mottled sericitic silicic	0.5	0	FZ 50 30	Gouge best developed at contact w/ lower phyllic alt'd vol'c; minor gouge on local jnt planes below contact	119849	0	0
261.80	263.00		1.0	2		260.7-429.0 m: exact same as 219.2-240.2; highly consistent texture/alt'n to EOH	119850	0	0
263.00	265.00		2.0	0			119851	0	0
265.00	267.00		2.0	0			119852	0	0
267.00	269.00		2.0	1	FZ 50 7	15 cm width of gouge at top of interval	119853	0	0
269.00	271.00		2.0	0			119854	0	0
271.00	273.00		3.0	1			119855	0	0
273.00	275.00		2.0	0			119856	0	0
275.00	277.00		3.0	0	FZ 70 15	Thin gouge zones (<5 cm) locally through out	119857	0	0
277.00	279.00		2.0	1			119858	0	0
279.00	281.00		3.0	0			119859	0	0
281.00	283.00		2.0	0			119860	0	0
283.00	285.00		3.0	1			119861	0	0
285.00	287.00		2.0	0			119862	0	0
287.00	289.00		2.0	1			119863	0	0
289.00	291.00		2.0	0	FZ 10	Thin gouge zones @ upper 25 cm of interval	119864	0	0
291.00	293.00		3.0	0			119865	0	0
293.00	295.00		3.0	0			119866	0	0
295.00	297.00		2.0	1			119867	0	0

**Hole Number: KN-02-57B**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
297.00	299.00	Fine-coarse grained light grey mottled sericitic silicic	3.0	1		Minor to moderate increase in qtz flooding locally downhole	119868	0	0
299.00	301.00		2.0	0			119869	0	0
301.00	303.00		3.0	0			119870	0	0
303.00	305.00		3.0	0			119871	0	0
305.00	307.00		1.0	0			119872	0	0
307.00	309.00		2.0	0			119873	0	0
309.00	311.00		2.0	0			119874	0	0
311.00	313.00		3.0	1			119875	0	0
313.00	315.00		2.0	0			120851	0	0
315.00	317.00		3.0	0			120852	0	0
317.00	319.00		3.0	0			120853	0	0
319.00	321.00		3.0	0			120854	0	0
321.00	323.00		3.0	0			120855	0	0
323.00	325.00		2.0	0			120856	0	0
325.00	327.00		2.0	1			120857	0	0
327.00	329.00		3.0	1			120858	0	0
329.00	331.00		4.0	0			120859	0	0
331.00	333.00		3.0	0			120860	0	0
333.00	335.00		3.0	0			120861	0	0
335.00	337.00		2.0	0			120862	0	0
337.00	339.00		3.0	1			120863	0	0
339.00	341.00		3.0	1			120864	0	0
341.00	343.00		2.0	0			120865	0	0
343.00	345.00		2.0	1			120866	0	0
345.00	347.00		2.0	0			120867	0	0
347.00	349.00		2.0	1			120868	0	0
349.00	351.00		4.0	0			120869	0	0
351.00	353.00		4.0	0			120870	0	0



**Hole Number: KN-02-57B**

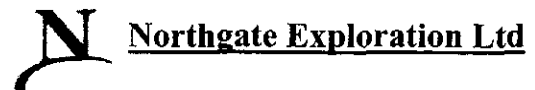
From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
353.00	355.00	Fine-coarse grained light grey mottled sericitic silicic	4.0	0			120871	0	0
355.00	357.00		3.0	2			120872	0	0
357.00	359.00		5.0	0			120873	0	0
359.00	361.00		3.0	1			120874	0	0
361.00	363.00		2.0	0			120875	0	0
363.00	365.00		2.0	0			120876	0	0
365.00	367.00		4.0	0			120877	0	0
367.00	369.00		3.0	0			120878	0	0
369.00	371.00		2.0	0			120879	0	0
371.00	373.00		3.0	1			120880	0	0
373.00	375.00		3.0	0			120881	0	0
375.00	377.00		2.0	0			120882	0	0
377.00	379.00		2.0	0			120883	0	0
379.00	381.00		4.0	0			120884	0	0
381.00	383.00		4.0	0			120885	0	0
383.00	385.00		7.0	0			120886	0	0
385.00	387.00		4.0	0			120887	0	0
387.00	389.00		3.0	0			120888	0	0
389.00	391.00		2.0	0			120889	0	0
391.00	393.00		3.0	1			120890	0	0
393.00	395.00		2.0	0			120891	0	0
395.00	397.00		4.0	0			120892	0	0
397.00	399.00		4.0	0			120893	0	0
399.00	401.00		4.0	0			120894	0	0
401.00	403.00		2.0	0			120895	0	0
403.00	405.00		2.0	0			120896	0	0
405.00	407.00		3.0	0		Qtz phenos present in matrix.	120897	0	0
407.00	409.00		2.0	0			120898	0	0

**Hole Number: KN-02-57B**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
409.00	411.00	Fine-coarse grained light grey mottled sericitic silicic	2.0	0			120899	0	0
411.00	413.00		7.0	0			120900	0	0
413.00	415.00		2.0	0			120901	0	0
415.00	417.00		3.0	0			120902	0	0
417.00	419.00		3.0	0			120903	0	0
419.00	421.00		2.0	0			120904	0	0
421.00	423.00		3.0	0			120905	0	0
423.00	425.00		4.0	0			120906	0	0
425.00	427.00		3.0	0			120907	0	0
427.00	429.00		2.0	0			120908	0	0

429 EOH

# Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-58**

Northing: 16310.5	Total Depth: 590.37m
Easting: 10059.8	Azimuth: 6°
Elevation: 1687.4	Dip: -60°

Geologist: B. LaPeare
Logged Date: 11/9/2002

Survey Depth	Azimuth	Dip	Comments:
133 m	6 °	-60 °	
225 m	6 °	-60 °	
316 m	12 °	-60 °	
408 m	16 °	-60 °	
499 m	20 °	-60 °	
591 m	19 °	-60 °	

# Komess North 2002 - Summary Drill Log



Hole Number: **KN-02-58**

From (m)	To (m)	Rock Type	Comments
0	3.66	CASING	Overburden
3.66	24	DACITE INTERMEDIATE FRAGMENTAL	Ground core; wkly magnetic; fine gr plag w/ local coarse frags of intrusive; Toodoggone Formation
24	27.3	FERRICRETE	Clast supported; coarse highly angular polymictic fragments within oxidized clay rich matrix - NOT IFRG
27.3	255.1	DACITE INTERMEDIATE FRAGMENTAL	Frag range from f.gr dk gy vol to intrusive to rare BFP
255.1	272.5	SYENITE (SUBVOLCANIC)	SYENITE(?) chl+bio fine gr matrix w/ 25-35% anhedral med gr feldspars; distinctive dull pinkish colour; no frags
272.5	289	DACITE INTERMEDIATE FRAGMENTAL	DACITIC FRAGMENTAL: same as unit above syenite but significant decrease in zeo/calc stringers
289	292.7	MAFIC DYKE	MAFIC DYKE: >40% as med gr subhedral 'knots' alt'd to chl within fine gr maf matrix
292.7	416.6	DACITE INTERMEDIATE FRAGMENTAL	
416.6	418.1	DACITE HORNFELS	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)
418.1	421.75	DACITE	Typical dacitic unit; no hfls texture or coarse fragments
421.75	422.65	DACITE HORNFELS	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)
422.65	427.4	DACITE	Typical dacitic unit; no hfls texture or coarse fragments
427.4	430.9	DACITE HORNFELS	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)

Hole Number: **KN-02-58**

From (m)	To (m)	Rock Type	Comments
430.9	467.85	DACITE INTERMEDIATE FRAGMENTAL	Typical dacitic unit; no hfls texture; polymictic fragments occur but generally < 5%
467.85	475.9	SYENITE (SUBVOLCANIC)	Same as above syenite @255.1 to 272.5 but matrix is more chloritic
475.9	508	DACITE INTERMEDIATE FRAGMENTAL	Typical dacitic fragmental
508	511.8	SYENITE (SUBVOLCANIC)	MIXED ZONE: mostly dk grey dacitic fragmental w/ syenitic intervals at 20-30 cm wide; contacts are diffuse
511.8	590.6	DACITE INTERMEDIATE FRAGMENTAL	Highly intercalated between dac/syn; similar to above mixed zone but with complex breccia relationships

# Kemess North 2002 - Detail Drill Log



**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
0	3.66	<b>CASING</b>								
	0.00	3.66				Overburden	58	-2	-2	
3.66	24	<b>DACITE INTERMEDIATE FRAGMENTAL</b>								
	3.66	17.00	Fine-grained grey oxidized	1.0	1	Ground core; wkly magnetic; fine gr plag w/ local coarse frags of intrusive; Toodoggone Formation	119526	0	0	
	17.00	24.00		1.0	3	Oxidized fractures; possibly boulders	119527	0	0	
24	27.3	<b>FERRICRETE</b>								
	24.00	25.40	Fine-coarse grained brown-grey in-situ brecciated clay oxidized		15	Clast supported; coarse highly angular polymictic fragments within oxidized clay rich matrix - NOT IFRG	119528	0	0	
	25.40	27.30			5		119529	0	0	
27.3	255.1	<b>DACITE INTERMEDIATE FRAGMENTAL</b>								
	27.30	29.00	Fine-coarse grained grey brecciated oxidized epidote	1.0	14	Frag range from f.gr dk gy vol to intrusive to rare BFP	119530	0	0	
	29.00	31.00		0.5	7	Rare wk patchy epidote	119531	0	0	
	31.00	33.00	Fine-coarse grained grey broken clay oxidized	0.5	17 ZC	5	119532	0	0	
	33.00	35.00	Fine-coarse grained grey brecciated sericitic clay	0.5	9 ZC	5	Matrix only mod hard from wk pervasive sericitic alt'n (??)	119533	0	0
	35.00	37.00		0.5	5 ZC	5	119534	0	0	
	37.00	39.00		0.5	2.0 16 ZC	5	3 cm wide cpy vnl't at 50 deg ca w/ w.d chl w.r alt'n and x-cuts calc vnl't	119535	0	0
	39.00	40.40	Fine-coarse grained grey brecciated sericitic chloritic	0.5	12 ZC	5	3 cm wide but w.d fault gouge at 39.8 m; local jnt planes w/ slickensides	119536	0	0
	40.40	41.45	Fine-coarse grained grey brecciated clay sericitic	0.5	2 FZ	80	Entire interval is fault zone w/ semi-pervasive gouge w/ calcite	119537	0	0
	41.45	43.00	Fine-coarse grained grey brecciated clay chloritic	0.5	5 CZ	10	119538	0	0	
	43.00	45.00	Fine-coarse grained grey brecciated chloritic	0.5	13 CZ	7	Chl dominant alt'n; pervasive but very wk	119539	0	0
	45.00	47.00		0.5	10 CZ	5	119540	0	0	

## Hole Number: KN-02-58

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
47.00	49.00	Fine-coarse grained grey brecciated chloritic	0.5	21 CZ	7		119541	0	0
49.00	51.00	Fine-coarse grained grey brecciated	0.5	13 CZ	10	15 cm 'mud seam' @ 70 deg ca at 49.30	119542	0	0
51.00	53.00		0.5	25 CZ	10	Fragmental texture becomes more evident locally; matrix becomes harder (unalt'd)	119543	0	0
53.00	55.00		0.5	13 CZ	10		119544	0	0
55.00	57.00		0.5	22 ZC	10	Very rare anhydrite x-cuts zeo	119545	0	0
57.00	59.00		0.5	15 ZC	10		119546	0	0
59.00	61.00		0.5	14 ZC	20		119547	0	0
61.00	63.00		0.5	18 ZC	20		119548	0	0
63.00	65.00		0.5	9 ZC	20		119549	0	0
65.00	67.00		0.5	10 ZC	20		119550	0	0
67.00	69.00		0.5	10 ZC	20		119551	0	0
69.00	71.00		0.5	19 CZ	35	Two random calc vnlt at 15 - 20 cm wide	119552	0	0
71.00	73.00	Fine-coarse grained grey brecciated epidote	0.5	7 CZ	20	Wk patchy/local epidote	119553	0	0
73.00	75.00		0.5	20 CZ	10	Local BFP frags	119554	0	0
75.00	77.00		0.5	20 CZ	5		119555	0	0
77.00	79.00		0.5	14 CZ	10	Local rounded frags of dioritic/monzonitic intrusive +/- assoc epidote; rare py in local frags	119556	0	0
79.00	81.00		0.5	10 CZ	10	Intrusive frags > 10 cm across	119557	0	0
81.00	83.00		0.5	13 CZ	3		119558	0	0
83.00	85.00	Fine-coarse grained grey brecciated	0.5	12 CZ	3		119559	0	0
85.00	87.00		0.5	19 CZ	3		119560	0	0
87.00	89.00		0.5	15 CZ	3		119561	0	0
89.00	91.00		0.5	9 CZ	5		119562	0	0
91.00	93.00		0.5	16 CZ	5		119563	0	0
93.00	95.00		0.5	9 CZ	5		119564	0	0
95.00	97.00		0.5	12 CZ	5	Later stage calc vnlt x-cut zeo +/- calc vnlt / stringers	119565	0	0
97.00	99.00		0.5	14 CZ	15	Zeo vnlt x-cut frags locally - rare BFP clasts	119566	0	0

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
99.00	101.00	Fine-coarse grained grey brecciated	0.5	9	CZ	7 Local wk fe staining (pinkish colour could also be from zeolitic staining)	119567	0	0
101.00	103.00		0.5	18	CZ	7	119568	0	0
103.00	105.00		0.5	14	CZ	7 Stringers predominatly at 50-70 deg ca	119569	0	0
105.00	107.00		0.5	28	ZC	5 Decrease in frags to <5% overall	119570	0	0
107.00	109.00		0.5	20	ZC	5	119571	0	0
109.00	111.00		0.5	18	ZC	5	119572	0	0
111.00	113.00		0.5	21	ZC	5	119573	0	0
113.00	115.00		0.5	15	ZC	5 Rare wk patchy epidote	119574	0	0
115.00	117.00		0.5	5	ZC	5	119575	0	0
117.00	119.00		0.5	16	ZC	5	119576	0	0
119.00	121.00		0.5	17	ZC	5	119577	0	0
121.00	123.00		0.5	18	ZC	5	119578	0	0
123.00	125.00		0.5	21	ZC	5	119579	0	0
125.00	127.00		0.5	27	ZC	3	119580	0	0
127.00	129.00		0.5	12	ZC	5	119581	0	0
129.00	131.00		0.5	15	ZCQ	7 Rare qtz stringer <1cm at 30 deg ca	119582	0	0
131.00	133.00		0.5	18	ZC	7	119583	0	0
133.00	135.00		0.5	16	ZC	7 Slight inc in frags	119584	0	0
135.00	137.00		0.5	8	ZC	7	119585	0	0
137.00	139.00		0.5	8	ZCQ	7 One qtz vnlit w/ py	119586	0	0
139.00	141.00		0.5	15	ZC	7	119587	0	0
141.00	143.00		0.5	21	ZC	7 20-30% as coarse intrusive frags - dull pink to dun coloured	119588	0	0
143.00	145.00		0.5	11	ZC	7	119589	0	0
145.00	147.00		0.5	20	ZC	7	119590	0	0
147.00	149.00		0.5	4	ZC	7	119591	0	0
149.00	151.00		0.5	20	ZC	7	119592	0	0
151.00	153.00		1.0	15	ZC	7	119593	0	0
153.00	155.00		1.0	18	ZC	7	119594	0	0



**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
155.00	157.00	Fine-coarse grained grey brecciated	0.5	21	ZC	7	119595	0	0
157.00	159.00		0.5	22	ZC	7	119596	0	0
159.00	161.00		0.5	12	ZC	7	119597	0	0
161.00	163.00		0.5	22	ZC	7	119598	0	0
163.00	165.00		0.5	7	ZC	7	119599	0	0
165.00	167.00		0.5	8	ZC	5	119600	0	0
167.00	169.00		0.5	10	ZC	5	119601	0	0
169.00	171.00		0.5	17	ZC	5	119602	0	0
171.00	173.00		0.5	21	ZC	3	119603	0	0
173.00	175.00		0.5	26	ZC	3	119604	0	0
175.00	177.00		0.5	19	ZC	3	119605	0	0
177.00	179.00		0.5	40	ZC	3	119606	0	0
179.00	181.00		0.5	6	CZQ	25	119607	0	0
181.00	183.00		0.5	38	CZ	5	119608	0	0
183.00	185.00		0.5	17	CZQ	5	119609	0	0
185.00	187.00		0.5	12	CZ	5	119610	0	0
187.00	189.00		0.5	4	CZ	5	119611	0	0
189.00	191.00		0.5	1	CZQ	5	119612	0	0
191.00	193.00		0.5	19	CZ	5	119613	0	0
193.00	195.00		0.5	15	CZ	5	119614	0	0
195.00	197.00		0.5	18	CZ	5	119615	0	0
197.00	199.00		0.5	30	CZ	5	119616	0	0
199.00	201.00		0.5	7	CZQ	5	119617	0	0
201.00	203.00		0.5	10	CZ	10	119618	0	0
203.00	205.00		0.5	8	CZ	5	119619	0	0
205.00	207.00		0.5	3	CZ	5	119620	0	0
207.00	209.00		0.5	18	CZ	5	119621	0	0
209.00	211.00		0.5	19	CZ	5	119622	0	0
211.00	213.00		0.5	14	CZ	5	119623	0	0

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
213.00	215.00	Fine-coarse grained grey brecciated	0.5	26	CZ	3	119624	0	0
215.00	217.00		0.5	20	CZ	5	119625	0	0
217.00	219.00		2.0	3	CZQ	10	119626	0	0
219.00	221.00		0.5	1	CZ	5	119627	0	0
221.00	223.00		1.0	16	CZQ	5	119628	0	0
223.00	225.00		0.5	16	CZQ	5	119629	0	0
225.00	227.00		0.5	8	CZ	5	119630	0	0
227.00	229.00		0.5	24	CZQ	10	119631	0	0
229.00	231.00		0.5	10	CZ	5	119632	0	0
231.00	233.00		0.5	7	CZ	5	119633	0	0
233.00	235.00		0.5	21	CZ	5	119634	0	0
235.00	237.00		0.5	18	CZ	5	119635	0	0
237.00	239.00		0.5	8	CZ	10	119636	0	0
239.00	241.00		0.5	13	CZ	5	119637	0	0
241.00	243.00		0.5	3	CZ	5	119638	0	0
243.00	245.00		0.5	14	CZQ	10	119639	0	0
245.00	247.00		0.5	1	CZ	5	119640	0	0
247.00	249.00		0.5	4	CZ	15	119641	0	0
249.00	251.00		0.5	3	CZ	10	119642	0	0
251.00	253.00		0.5	13	CZ	5	119643	0	0
253.00	255.10		0.5	4	CZ	5	119644	0	0
255.1	272.5	<b>SYENITE (SUBVOLCANIC)</b>							
255.10	257.00	Fine-medium-grained porphyritic	0.5	12	ZC	3	119645	0	0
257.00	259.00		0.5	15	ZC	3	119646	0	0
259.00	261.00		0.5	19	ZC	3	119647	0	0
261.00	263.00		0.5	12	ZC	3	119648	0	0
263.00	265.00		0.5	11	ZC	3	119649	0	0
265.00	267.00		0.5	13	ZC	3	119650	0	0

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
267.00	269.00	Fine-medium-grained porphyritic	0.5	14	ZC	3	119651	0	0	
269.00	271.00		0.5	14	ZC	3	119652	0	0	
271.00	272.50		0.5	4	ZC	3	119653	0	0	
272.5	289	<b>DACITE INTERMEDIATE FRAGMENTAL</b>								
272.50	275.00	Fine-coarse grained grey brecciated	0.5	4	CZ	3	119654	0	0	
						DACITIC FRAGMENTAL: same as unit above syneite but significant decrease in zeo/calc stringers				
275.00	277.00		0.5	6	CZ	3	119655	0	0	
277.00	279.00		0.5	33	CZ	3	119656	0	0	
						20 cm BFP frag				
279.00	281.00		2.0	8	CZ	15	119657	0	0	
						30 cm of qtz infill +/- patchy epidote and py				
281.00	283.00		0.5	6	CZ	2	119658	0	0	
283.00	285.00		0.5	27	CZ	2	119659	0	0	
285.00	287.00		0.5	2	CZ	2	119660	0	0	
287.00	289.00		0.5	4	CZ	2	119661	0	0	
289	292.7	<b>MAFIC DYKE</b>								
289.00	291.00	Fine-medium-grained green porphyritic chloritic		22	C	30	1	119662	0	0
291.00	292.00			5	C	30	1	119663	0	0
292.00	292.70			6	C	3	119664	0	0	
292.7	416.6	<b>DACITE INTERMEDIATE FRAGMENTAL</b>								
292.70	295.00	Fine-coarse grained grey brecciated	0.5	1	CZ	3	119665	0	0	
295.00	297.00		0.5	7	CZ	3	119666	0	0	
297.00	299.00		0.5	6	CZ	3	119667	0	0	
299.00	301.00		0.5	12	CZ	3	119668	0	0	
301.00	303.00		0.5	10	CZ	3	119669	0	0	
303.00	305.00		0.5	12	CZ	3	119670	0	0	
305.00	307.00		0.5	14	CZ	3	119671	0	0	
307.00	309.00		0.5	7	CZ	3	119672	0	0	
309.00	310.90		0.5	14	CZ	3	119673	0	0	
						50 cm width of monzonitic intrusive (xenolith or dyke?) w/ epidote at upper contact				
						30% as 'pitted' qtz zeo+calc+chl				

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
310.90	311.90	Fine-coarse grained grey brecciated	0.5	4 CZ	15	30 cm qtz vein w/ wk zeo; patchy hornfels chl on either side up to 40 cm wide	119674	0	0
311.90	313.00		0.5	16 CZ	2		119675	0	0
313.00	315.00		0.5	18 CZ	2		119676	0	0
315.00	317.00		0.5	9 CZ	2		119677	0	0
317.00	319.00		0.5	4 CZ	2		119678	0	0
319.00	321.00		0.5	10 CZ	2		119679	0	0
321.00	323.00		0.5	21 CZ	2		119680	0	0
323.00	325.00		0.5	25 CZ	2	% of frags decreases to < 5% but local BFP and qtz frags	119681	0	0
325.00	327.00		0.5	17 CZ	2		119682	0	0
327.00	329.00		0.5	4 CZ	2		119683	0	0
329.00	331.00		0.5	15 CZ	2		119684	0	0
331.00	333.00		0.5	3 CZ	2		119685	0	0
333.00	335.00		0.5	12 CZ	2		119686	0	0
335.00	336.85		0.5	11 CZ	2		119687	0	0
336.85	337.00		0.5	8 C	1	Frags decrease further to rare to mostly absent	119688	0	0
337.00	339.00		0.5	23 C	1		119689	0	0
339.00	341.00		0.5	21 C	1		119690	0	0
341.00	343.00		0.5	24 C	1		119691	0	0
343.00	345.00		0.5	23 C	1		119692	0	0
345.00	347.00		0.5	15 C	1		119693	0	0
347.00	349.00		0.5	14 ZC	2		119694	0	0
349.00	351.00		0.5	15 ZC	4		119695	0	0
351.00	353.00		0.5	25 ZC	7	Zeo on local fractures	119696	0	0
353.00	355.00		0.5	26 ZC	2		119697	0	0
355.00	357.00		0.5	29 ZC	2		119698	0	0
357.00	359.00		0.5	1 ZC	2		119699	0	0
359.00	361.00		0.5	35 ZC	2		119700	0	0
361.00	363.00		0.5	23 ZC	2		119701	0	0

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
363.00	365.00	Fine-coarse grained grey brecciated	0.5	35	ZC	2	119702	0	0
365.00	367.00		0.5	15	ZC	2	119703	0	0
367.00	369.00		1.0	10	ZC	2	119704	0	0
369.00	371.00		0.5	20	ZC	2	119705	0	0
371.00	373.00		0.5	29	ZC	2	119706	0	0
373.00	375.00		0.5	25	ZC	2	119707	0	0
375.00	377.00		0.5	18	ZC	4	119708	0	0
377.00	379.00		0.5	19	ZC	2	119709	0	0
379.00	381.00		0.5	24	ZC	2	119710	0	0
381.00	383.00		0.5	26	ZC	2	119711	0	0
383.00	385.00		0.5	25	ZC	2	119712	0	0
385.00	387.00		0.5	11	ZC	2	119713	0	0
387.00	389.00		0.5	33	ZC	2	119714	0	0
389.00	391.00		0.5	23	ZC	2	119715	0	0
391.00	393.00		0.5	7	ZC	2	119716	0	0
393.00	395.00		0.5	18	ZC	2	119717	0	0
395.00	397.00		0.5	25	ZC	2	119718	0	0
397.00	399.00		0.5	20	ZC	2	119719	0	0
399.00	401.00		0.5	9	ZC	60 7	119720	0	0
401.00	403.00		0.5	16	ZC	60 7	119721	0	0
403.00	405.00		0.5	33	ZC	2	119722	0	0
405.00	407.00		0.5	29	ZC	2	119723	0	0
407.00	409.00		0.5	29	ZC	2	119724	0	0
409.00	411.00		0.5	31	ZC	2	119725	0	0
411.00	413.00		0.5	18	ZC	2	119726	0	0
413.00	415.00		0.5	23	ZC	2	119727	0	0
415.00	416.60		0.5	15	ZC	2	119728	0	0

416.6 418.1 **DACITE HORNFELS**

## Hole Number: KN-02-58

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
416.60	418.10	Medium-grained green-grey porphyritic chloritic	0.5	9 ZC	2	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)	119729	0	0
<b>418.1</b>	<b>421.75</b>	<b>DACITE</b>							
418.10	419.80	Fine-grained grey massive	0.5	14 ZC	2	Typical dacitic unit; no hfls texture or coarse fragments	119730	0	0
419.80	421.75		0.5	13 ZC	50 2		119731	0	0
<b>421.75</b>	<b>422.65</b>	<b>DACITE HORNFELS</b>							
421.75	422.65	Medium-grained green-grey porphyritic chloritic	0.5	17 ZC	2	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)	119732	0	0
<b>422.65</b>	<b>427.4</b>	<b>DACITE</b>							
422.65	424.55	Fine-grained grey massive	0.5	16 ZC	5	Typical dacitic unit; no hfls texture or coarse fragments	119733	0	0
424.55	425.90		0.5	18 ZC	3		119734	0	0
425.90	427.40		0.5	3 ZC	3		119735	0	0
<b>427.4</b>	<b>430.9</b>	<b>DACITE HORNFELS</b>							
427.40	428.90	Medium-grained green-grey porphyritic chloritic	0.5	1 ZC	3	Hornfels' texture very well developed as coarse knots of chl (porphyroblasts??)	119736	0	0
428.90	430.90		0.5	0 ZC	3		119737	0	0
<b>430.9</b>	<b>467.85</b>	<b>DACITE INTERMEDIATE FRAGMENTAL</b>							
430.90	432.40	Fine-coarse grained grey brecciated	0.5	19 ZC	2	Typical dacitic unit; no hfls texture; polymictic fragments occur but generally < 5%	119738	0	0
432.40	433.40		0.5	12 ZC	2		119739	0	0
433.40	435.00		0.5	12 ZC	2		119740	0	0
435.00	437.00		0.5	22 ZC	2		119741	0	0
437.00	439.00		0.5	33 ZC	2		119742	0	0
439.00	441.00		0.5	36 ZC	2		119743	0	0
441.00	443.00		0.5	18 ZC	2		119744	0	0
443.00	445.00		0.5	23 ZC	2		119745	0	0
445.00	447.00		0.5	41 ZC	2		119746	0	0
447.00	449.00		0.5	19 ZC	2		119747	0	0
449.00	451.00		0.5	22 ZC	3		119748	0	0
451.00	453.00		0.5	16 ZC	15 3	Stringers decrease in angle	119749	0	0

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
453.00	455.00	Fine-coarse grained grey brecciated	0.5	27	ZC 15 3		119750	0	0
455.00	457.00		0.5	23	ZCQ 15 3		119751	0	0
457.00	459.00		0.5	20	ZC 15 3		119752	0	0
459.00	461.00		0.5	27	ZC 15 3		119753	0	0
461.00	463.00		0.5	21	ZC 2	Stringers/vnlts increase in angle and % of frags increases slightly	119754	0	0
463.00	465.00		0.5	9	ZC 2		119755	0	0
465.00	467.00		0.5	27	ZC 5		119756	0	0
467.00	467.85		0.5	14	ZC 2		119757	0	0
467.85	475.9	<b>SYENITE (SUBVOLCANIC)</b>							
467.85	470.00	Fine-medium-grained pink porphyritic chloritic	0.5	8	ZC 7	Same as above syenite @255.1 to 272.5 but matrix is more chloritic	119758	0	0
470.00	471.70		0.5	4	ZC 2		119759	0	0
471.70	473.15		0.5	19	ZC 2		119760	0	0
473.15	474.30		0.5	23	ZC 2	Some intercepts of darker grey dacite w/ wispy chl alt'n	119761	0	0
474.30	475.90		0.5	11	ZC 2		119762	0	0
475.9	508	<b>DACITE INTERMEDIATE FRAGMENTAL</b>							
475.90	477.00	Fine-coarse grained grey brecciated	0.5	27	ZC 2	Typical dacitic fragmental	119763	0	0
477.00	479.00		0.5	15	ZC 3		119764	0	0
479.00	481.00		0.5	13	ZC 3		119765	0	0
481.00	483.00		0.5	16	ZC 15		119766	0	0
483.00	485.00		0.5	18	ZC 20		119767	0	0
485.00	487.00		0.5	14	ZC 4		119768	0	0
487.00	489.00		0.5	24	ZC 3		119769	0	0
489.00	491.00	Fine-coarse grained grey pink brecciated	0.5	19	ZC 3	MIXED ZONE: mostly dk grey dacitic fragmental w/ syenitic intervals at 20-30 cm wide; contacts are diffuse	119770	0	0
491.00	493.00		0.5	1	ZC 5		119771	0	0
493.00	494.90		0.5	18	ZC 2		119772	0	0
494.90	496.50		0.5	32	ZC 2	End of mixed zone; inc in polymictic frags	119773	0	0
496.50	497.60	Fine-coarse grained grey brecciated	0.5	29	ZC 2		119774	0	0

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
497.60	499.00	Fine-coarse grained grey brecciated	0.5	28	ZC	2	119775	0	0
499.00	501.00		0.5	37	ZC	2	119776	0	0
501.00	503.00		0.5	20	ZC	2	119777	0	0
503.00	505.00		0.5	21	ZC	2	119778	0	0
505.00	507.00		0.5	29	ZC	4	119779	0	0
507.00	508.00		0.5	15	ZC	2	119780	0	0
508	511.8	<b>SYENITE (SUBVOLCANIC)</b>							
508.00	509.00	Fine-coarse grained green-grey brecciated chloritic	0.5	13	ZC	2	119781	0	0
509.00	510.30	Fine-coarse grained green-grey brecciated	0.5	15	ZC	3	119782	0	0
510.30	511.80	Fine-coarse grained green-grey brecciated chloritic	0.5	21	ZC	3	119783	0	0
511.8	590.6	<b>DACITE INTERMEDIATE FRAGMENTAL</b>							
511.80	513.00	Fine-coarse grained grey brecciated	0.5	26	ZC	4	119784	0	0
513.00	515.00		0.5	25	ZC	5	119785	0	0
515.00	516.00		0.5	11	ZC	3	119786	0	0
516.00	517.10		0.5	18	ZCQ	5	119787	0	0
517.10	519.00		0.5	16	ZC	70 15	119788	0	0
519.00	519.80		0.5	17	ZC	4	119789	0	0
519.80	521.60		0.5	26	ZCQ	3	119790	0	0
521.60	523.00		0.5	17	ZC	3	119791	0	0
523.00	525.00		0.5	16	ZC	2	119792	0	0
525.00	526.25		0.5	19	ZC	2	119793	0	0
526.25	527.80		0.5	25	ZC	3	119794	0	0
527.80	529.70		0.5	10	ZC	5	119795	0	0
529.70	531.00		0.5	24	ZC	3	119796	0	0
531.00	533.00		0.5	18	ZC	3	119797	0	0



## Hole Number: KN-02-58

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm		
533.00	535.00	Fine-coarse grained grey brecciated	0.5	17	ZC	3	119798	0	0		
535.00	537.00		0.5	7	ZC	3	119799	0	0		
537.00	539.00		0.5	24	ZC	3	119800	0	0		
539.00	541.00		0.5	8	ZC	3	119801	0	0		
541.00	543.00		0.5	18	ZC	3	119802	0	0		
543.00	545.00		0.5	17	ZC	3	119803	0	0		
545.00	547.00		0.5	16	ZC	3	119804	0	0		
547.00	549.00		0.5	15	ZC	3	119805	0	0		
549.00	551.00		0.5	19	ZC	3	119806	0	0		
551.00	553.00		0.5	24	ZC	3	119807	0	0		
553.00	555.00		0.5	30	ZC	3	119808	0	0		
555.00	557.00		0.5	10	ZC	3	119809	0	0		
557.00	559.00		0.5	10	ZC	3	119810	0	0		
559.00	561.00		0.5	21	ZC	3	119811	0	0		
561.00	563.00		0.5	29	ZC	3	119812	0	0		
563.00	565.00		0.5	12	ZC	3	119813	0	0		
565.00	567.00		0.5	19	ZC	3	119814	0	0		
567.00	569.00		0.5	17	ZC	3	119815	0	0		
569.00	571.00		0.5	16	ZC	3	119816	0	0		
571.00	573.00		0.5	20	ZC	3	119817	0	0		
573.00	575.00		0.5	24	ZC	3	119818	0	0		
575.00	577.00		0.5	23	ZC	3	119819	0	0		
577.00	579.00		0.5	0.3	15	ZC	3	Cpy on one fracture and also one thin vnlit	119820	0	0
579.00	581.00		0.5	5	ZC	3	119821	0	0		
581.00	583.00		0.5	19	ZC	3	119822	0	0		
583.00	585.00		0.5	16	ZC	3	119823	0	0		
585.00	587.00		1.0	7	ZC	3	119824	0	0		
587.00	589.00		0.5	10	ZC	3	119825	0	0		
589.00	590.60		0.5	15	ZC	3	119826	0	0		

**Hole Number: KN-02-58**

From	To	Rock Type	Py-Cpy-Mt Ms Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
590.6	EOH						