

GeoSpark Logger ~ Drill Log

Project:	KZK	Hole Number:	K98-189
Prospect:	GP4F	Hole Type:	DD
Grid:	NAD83_Z9	Hole Diameter:	75.7
UTM Easting	419465.257	Core Size:	NQ
UTM Northing:	6813227.774	Casing Pulled?:	No
UTM Elev. (m):	1340.115	Casing Depth (m):	
Local Easting:	9450	Stored?:	Yes
Local Northing:	3100	Cemented?:	
Local Elev. (m):	1340.1		
Comments:			

Survey Type:	RTK DGPS	Logged By:	Rob Duncan
Survey By:	Challenger_Survey	Date Logging Start:	5/21/2016
Azimuth:	0	Date Logging Complete:	5/22/2016
Dip:	-90	Drill Company:	
Length (m):	124.7	Drill Rig:	
Claims Title		Drill Started:	
Core Storage Loc.:	KZK Camp	Drill Completed:	
Hole Completed?:	Completed	Purpose:	Resource Definition
		Parent Hole:	

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-90	0		0	ACID				<input checked="" type="checkbox"/>	

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	21.70	OVBN Overburden									
21.70	30.40	RHYvl Lapilli tuff									
21.7 - 30.4: biotite +/- tourmaline poprphyroblasts <10%. Possible vx											
<<Min: 21.7 - 30.4 0.01% Min: Pyrite>>											
<<Alt: 21.7 - 30.4 Weak Muscovite>>											
<<Struc: 24.1 - 25.2 Trace Fault>> broken core poor recovery											
30.40	34.10	PEL Equigranular biotite + calcite +/- quartz rock									
30.4 - 34.1: int CA, chl, bt. Some bleaching at margins											
<<Min: 30.4 - 38 0.5% Min: Pyrrhotite>>											
<<Alt: 30.4 - 34.1 Strong Calcite>>											
34.10	36.10	RHYvl Lapilli tuff									
34.1 - 36.1: as above											
<<Alt: 34.1 - 36.1 Weak Muscovite>>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
36.10	38.00	PEL Equigranular biotite + calcite +/- quartz rock									
<p>36.1 - 38: int CA, no chl</p> <p><<Alt: 36.1 - 51.7 Moderate Muscovite>> sig coarse MU with py, fault related, or hydrothermal</p>											
38.00	39.10	RHYvi Lapilli tuff									
<p>38 - 39.1: BI</p> <p><<Min: 38 - 51.7 3% Min: Pyrite>></p>											
39.10	51.70	RHYva Coarse grained to ash tuff									
<p><<Vein: 51 - 51.3 100% Quartz-Albite 60 deg. >></p> <p><<Struc: 43.1 - 48.5 Moderate Fault>> broken, missing core, poor recovery. Gouge.</p> <p style="text-align: right;">FMG</p>											
51.70	54.30	PEL Equigranular biotite + calcite +/- quartz rock									
<p>51.7 - 54.3: sharp contacts and finer grained</p> <p><<Min: 51.7 - 54.3 0.5% Min: Pyrite>></p> <p><<Min: 51.7 - 54.3 1% Min: Pyrrhotite>></p> <p><<Alt: 51.7 - 54.3 Moderate-Strong Calcite>></p>											
54.30	58.40	RHYvi Lapilli tuff									
<p>54.3 - 58.4: BI decreasing, increasing mu alt</p> <p><<Min: 54.3 - 59 1% Min: Pyrite>></p> <p><<Min: 54.3 - 59 0.5% Min: Pyrrhotite>></p> <p><<Alt: 54.3 - 59 Weak-Moderate Muscovite>> fault related? In tuff</p> <p><<Struc: 55 - 58.6 Weak Fault>> broken & lost core, minor gouge</p>											
58.40	67.00	RHYvx Quartz and/or feldspar crystal tuff									
<p>58.4 - 67: Logged as Qtz porphyry in past. Commonly seen within 20m HW to GP4F. Strained rock with BI between QE-qtz domains, 10cm interbands of Q & Feldspar phytic material. Lower contact with PEL with intercalated ash tuff material and then back into QE bearin</p> <p><<Min: 59 - 68.2 1% Min: Pyrite>></p> <p><<Min: 59 - 68.2 0.05% Min: Pyrrhotite>></p> <p><<Min: 59 - 68.2 0.01% Min: Chalcopyrite>></p> <p><<Alt: 59 - 67 Weak Muscovite>></p>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Vein: 60.5 - 60.8 80% Quartz-Albite 45 deg. >>									
67.00	68.20	PEL Equigranular biotite + calcite +/- quartz rock									
		67 - 68.2: intercalated with felsic ash component									
		<<Alt: 67 - 68.2 Moderate Calcite>>									
68.20	76.50	RHYcf Feldspar & feldspar quartz porphyry									
		68.2 - 76.5: as above, less BI, narrow 10cm interval of Feldspars									
		<<Min: 68.2 - 77.9 0.5% Min: Sphalerite>>									
		<<Min: 68.2 - 77.9 4% Min: Pyrite>>									
		<<Min: 68.2 - 77.9 0.5% Min: Pyrrhotite>>									
		<<Min: 68.2 - 77.9 0.01% Min: Galena>>									
		<<Min: 68.2 - 77.9 0.01% Min: Chalcopyrite>>									
		<<Alt: 68.2 - 76.5 Weak Muscovite>>									
		<<Alt: 68.2 - 76.5 Trace Chlorite>>									
		<<Alt: 68.2 - 76.5 Weak Ankerite>>									
		<<Struc: 71.3 - 73 Trace Fault>> broken core									
76.50	76.90	PEL Equigranular biotite + calcite +/- quartz rock									
		76.5 - 76.9: narrow, sharp contacts, homogeneous									
		<<Alt: 76.5 - 76.9 Moderate Calcite>>									
76.90	77.90	RHYcf Feldspar & feldspar quartz porphyry									
		76.9 - 77.9: increased BI									
		<<Alt: 76.9 - 77.9 Weak Muscovite>>									
		<<Alt: 76.9 - 77.9 Weak-Moderate Ankerite>>									
77.90	82.70	RHYva Coarse grained to ash tuff									
		77.9 - 82.7: stg py & MU alt									
		<<Min: 77.9 - 82.7 15% Min: Pyrite>>									
		<<Alt: 77.9 - 82.7 Moderate-Strong Muscovite>>									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Struc: 78 - 82.7 Weak Fault>> broken core, rubble									
82.70	84.70	OI Heavilly disseminated sulphides in host schist									
		MCG									
		82.7 - 84.7: hosted in RHYV with PEL component?									
		<<Min: 82.7 - 84.7 5% Min: Sphalerite>>									
		<<Min: 82.7 - 84.7 10% Min: Pyrite>>									
		<<Min: 82.7 - 84.7 3% Min: Pyrrhotite>>									
		<<Min: 82.7 - 84.7 1% Min: Galena>>									
		<<Min: 82.7 - 84.7 0.5% Min: Chalcopyrite>>									
		<<Alt: 82.7 - 84.7 Moderate-Strong Muscovite>>									
		<<Alt: 82.7 - 84.7 Weak Garnet>>									
		<<Alt: 82.7 - 84.7 Moderate-Strong Chlorite>> foliaform stringer, patches									
		<<Alt: 82.7 - 84.7 Weak-Moderate Ankerite>>									
84.70	86.40	PEL Equigranular biotite + calcite +/- quartz rock									
		84.7 - 86.4: felsic ash component									
		<<Min: 84.7 - 86.4 2% Min: Pyrite>>									
		<<Min: 84.7 - 86.4 3% Min: Pyrrhotite>>									
		<<Alt: 84.7 - 86.4 Moderate Chlorite>>									
		<<Alt: 84.7 - 86.4 Weak-Moderate Ankerite>>									
		<<Struc: 86 - 86.4 Weak-Moderate Fault>> rubble core missing core									
86.40	88.20	OJ Heavilly disseminated sulphides and/or stringer style mineralization in proximal altered rock									
		MG									
		86.4 - 88.2: intense CI mod CL,									
		<<Min: 86.4 - 88.2 3% Min: Sphalerite>>									
		<<Min: 86.4 - 88.2 4% Min: Pyrite>>									
		<<Min: 86.4 - 88.2 7% Min: Pyrrhotite>>									
		<<Min: 86.4 - 88.2 2% Min: Galena>>									
		<<Min: 86.4 - 88.2 0.5% Min: Chalcopyrite>>									
		<<Alt: 86.4 - 88.2 Moderate Muscovite>>									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Alt: 86.4 - 88.2 Moderate-Strong Chlorite>> <<Alt: 86.4 - 88.2 Intense Cordierite>> <<Vein: 87.2 - 87.3 100% Quartz-Albite 90 deg. >> remobilized cpy-py-sp on selvage									
88.20	88.80	OL semi to massive sulphide; 10 – 40% coarse buckshot PY in a SP +/- PO, MG, GL, CP matrix									
		88.2 - 88.8: buckshot texture PY; 88.4 - 88.5 RHY MU altered with garnet cl alt on margin									
		<<Min: 88.2 - 88.8 15% Min: Sphalerite>> <<Min: 88.2 - 88.8 30% Min: Pyrite>> py = buckshot texture <<Min: 88.2 - 88.8 10% Min: Pyrrhotite>> <<Min: 88.2 - 88.8 10% Min: Magnetite>> <<Min: 88.2 - 88.8 7% Min: Galena>> <<Min: 88.2 - 88.8 0.5% Min: Chalcopyrite>>									
88.80	89.50	OJ Heavilly disseminated sulphides and/or stringer style mineralization in proximal altered rock									
		<<Min: 88.8 - 89.5 10% Min: Sphalerite>> <<Min: 88.8 - 89.5 5% Min: Pyrite>> <<Min: 88.8 - 89.5 15% Min: Pyrrhotite>> <<Min: 88.8 - 89.5 3% Min: Magnetite>> <<Min: 88.8 - 89.5 3% Min: Galena>> <<Min: 88.8 - 89.5 0.5% Min: Chalcopyrite>> <<Alt: 88.8 - 89.5 Moderate-Strong Muscovite>> <<Alt: 88.8 - 89.5 Weak-Moderate Garnet>> <<Alt: 88.8 - 89.5 Strong Chlorite>> <<Alt: 88.8 - 89.5 Weak Cordierite>> along fol in restricted band									
89.50	91.00	OI Heavilly disseminated sulphides in host schist									
		89.5 - 91: also defined stringers of smas within PEL with minor ash tuff									
		<<Min: 89.5 - 91 5% Min: Sphalerite>>									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
<<Min: 89.5 - 91	10% Min: Pyrite>>	buckshot in smas stringers within									
<<Min: 89.5 - 91	10% Min: Pyrrhotite>>	groundmass to stringers									
<<Min: 89.5 - 91	2% Min: Galena>>										
<<Min: 89.5 - 91	0.5% Min: Chalcopyrite>>										
<<Alt: 89.5 - 91	Moderate Muscovite>>										
<<Alt: 89.5 - 91	Moderate Chlorite>>										
<<Alt: 89.5 - 91	Weak Cordierite>>										
<<Alt: 89.5 - 91	Weak-Moderate Calcite>>										
91.00	91.30 RHYva	Coarse grained to ash tuff									
<<Min: 91 - 91.3	4% Min: Pyrite>>										
<<Alt: 91 - 91.3	Moderate-Strong Muscovite>>										
91.30	92.20 OB	Wispy laminar, fine buckshot textured, massive sulphide with lesser magnetite									
											MCG
91.3 - 92.2:	buckshot text py										
<<Min: 91.3 - 92.2	15% Min: Sphalerite>>										
<<Min: 91.3 - 92.2	60% Min: Pyrite>>	buckshot									
<<Min: 91.3 - 92.2	5% Min: Pyrrhotite>>	conc. In one 5cm stringer									
<<Min: 91.3 - 92.2	7% Min: Galena>>										
<<Min: 91.3 - 92.2	0.5% Min: Chalcopyrite>>										
92.20	95.50 RHYcf	Feldspar & feldspar quartz porphyry									
92.2 - 95.5:	BI in foliaform domains = dirty pel tuffcompnent										
<<Min: 92.2 - 95.5	2% Min: Pyrite>>	foliform conc. In BI domains									
<<Min: 92.2 - 95.5	2% Min: Pyrrhotite>>	foliform conc in BI domains									
<<Alt: 92.2 - 95.5	Weak-Moderate Muscovite>>										
95.50	96.50 PEL	Equigranular biotite + calcite +/- quartz rock									
<<Min: 95.5 - 104	1% Min: Pyrite>>										
<<Min: 95.5 - 104	2% Min: Pyrrhotite>>										
<<Alt: 95.5 - 101.9	Weak Muscovite>>	in RHYvx intervals only									
<<Alt: 95.5 - 104	Moderate-Strong Calcite>>										

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
96.50	97.30	RHYcf Feldspar & feldspar quartz porphyry									
96.5 - 97.3: as above											
97.30	101.40	PEL Equigranular biotite + calcite +/- quartz rock									
97.3 - 101.4: intercalated with RHYvx QE @99.7 - 100m											
<<Struc: 100.5 - 101.1 Moderate Fault>> rubble missing core, 15cm of carbonate vein? Gouge											
101.40	101.90	RHYcf Feldspar & feldspar quartz porphyry									
101.4 - 101.9: as above											
101.90	104.00	PEL Equigranular biotite + calcite +/- quartz rock									
104.00	105.90	RHYcf Feldspar & feldspar quartz porphyry									
104 - 105.9: 3-5mm largely undeformed feldspars, 5-10% 2-3mm blue qtz crystals											
<<Min: 104 - 109 1% Min: Pyrite>>											
<<Min: 104 - 109 0.5% Min: Pyrrhotite>>											
<<Alt: 104 - 109 Weak Muscovite>>											
105.90	108.30	PEL Equigranular biotite + calcite +/- quartz rock									
105.9 - 108.3: RHYva component intercalated											
<<Alt: 105.9 - 108 Moderate Calcite>>											
<<Struc: 105.9 - 107 Trace Fault>> broken core											
108.30	117.30	RHYcf Feldspar & feldspar quartz porphyry									
108.3 - 117.3: asabove, variability in feldspars. Lower 1m becoming more deformed foliated											
<<Min: 109 - 115 3% Min: Pyrite>>											
<<Min: 115 - 124.7 1% Min: Pyrite>>											
<<Alt: 109 - 115.5 Moderate Muscovite>>											
<<Alt: 109 - 115.5 Weak Chlorite>>											

GeoSpark Logger ~ Drill Log

Project:

KZK

Hole Number:

K98-189

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
<<Alt: 115.5 - 124.7 Weak Muscovite>> <<Struc: 115 - 115.5 Moderate Fault>> gray gouge with carbonate rubble cross cutting foliation <<Struc: 116.7 - 116.8 Moderate Fault>> gouge 117.30 119.10 RHYv Rhyolite volcaniclastic <<Struc: 118 - 119.2 Moderate-Strong Fault>> gouge, missing core, carbonate fill rubble 119.10 120.10 PEL Equigranular biotite + calcite +/- quartz rock <<Alt: 119.1 - 120.1 Weak-Moderate Calcite>> 120.10 124.70 RHYvi Lapilli tuff End of Hole @ 124.7											