

GeoSpark Logger ~ Drill Log

Project: KZK **Hole Number:** K16-412

Prospect:	Infrastructure	Hole Type:	DD	Survey Type:	GPS	Logged By:	Alicia Vainio	
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Knight Piésold	Date Logging Start:	8/15/2016	
UTM Easting	416068	Core Size:	HQ3	Azimuth:	360	Date Logging Complete:	8/16/2016	
UTM Northing:	6816060	Casing Pulled?:	Yes	Dip:	-90	Drill Company:	Hytech	
UTM Elev. (m):	1462	Casing Depth (m):	0	Length (m):	38.7	Drill Rig:	Tech 5000	
Local Easting:		Stored?:	Yes	Claims Title		Drill Started:	8/12/2016	
Local Northing:		Cemented?:	THM	Core Storage Loc.:	KZK Camp	Drill Completed:	8/14/2016	
Local Elev. (m):				Hole Completed?:	Completed	Purpose:	Geotech	
Comments:							Parent Hole:	

K16-412 was drilled as part of a geotechnical investigation of the Class C storage facility that included Standard Penetration Tests (SPT's), Packer Testing and Thermistor installation.. Bedrock was encountered at a depth of 19m and consisted of interbedded carbonaceous mudstone and mafic volcanics of the Wind Lake Formation. Quartz veining was prominent between 21.5 - 24.5 m, followed by weak to moderate faulting to a depth of 28.2 m.

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-90	360	0	360	PLND-LiDAR	Knight Piésold	8/12/2016		<input checked="" type="checkbox"/>	Vertical hole

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	19.00	OVBN Overburden									
19.00	33.97	MDS Carbonaceous Mudstone & Tuffaceous Mudstone									
<p>19 - 33.97: Dark grey, carbonaceous mudstone with small beds of mafic volcanics. Quartz veining is prominent between 21.5 - 24.5m.</p> <p><<Min: 19 - 31.1 0.1% Min: Pyrite>></p> <p><<Min: 31.1 - 33.16 1% Min: Pyrite>> Cm-size pyrite aggregates, and pyrite banding.</p> <p><<Min: 33.16 - 33.97 0.1% Min: Pyrite>></p> <p><<Alt: 19 - 25.2 Moderate Calcite>> Disseminated-banded calcite.</p> <p><<Alt: 25.2 - 38.05 Trace Calcite>></p> <p><<Vein: 21.5 - 24.5 Quartz-Carbonate>> Quartz-carbonate veins; calcite is patchy and FRA.</p> <p><<Vein: 29.13 - 32.5 Quartz-Carbonate>> Weakly-oxidized, vuggy, quartz-carbonate veins.</p> <p><<Struc: 20.76 - 20.77 dominant foliation>></p> <p><<Struc: 22.3 - 23.06 Weak Fault>> Rubble zone.</p> <p><<Struc: 23.7 - 25.62 Weak-Moderate Fault>> Rubble zone and mudstone gouge; poor recovery.</p>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Struc: 26.94 - 28.2 Moderate Fault>> Weak mudstone, and gouge.									
		<<Struc: 28.95 - 28.96 dominant foliation>>									
		<<Struc: 29.44 - 31.3 Trace Fault>> Rubble zone.									
		33.97 34.50 MAft Mafic Volcaniclastics									
		<<Min: 33.97 - 34.5 1% Min: Pyrite>> Strained blebs of disseminated pyrite.									
		<<Vein: 34.37 - 38.6 Quartz-Carbonate>> Quartz-carbonate veins; calcite is blebby.									
		<<Struc: 34.12 - 34.13 dominant foliation>>									
		34.50 36.06 MDS Carbonaceous Mudstone & Tuffaceous Mudstone									
		34.5 - 36.06: Patchy silicification within carbonaceous mudstone.									
		<<Min: 34.5 - 36.06 0.5% Min: Pyrite>> Pyrite banding and FRA.									
		<<Alt: 34.5 - 36.06 Weak Silicification>>									
		<<Struc: 35.82 - 35.83 dominant foliation>>									
		36.06 38.70 MAft Mafic Volcaniclastics									
		36.06 - 38.7: Light grey (bleached) to green mafic volcaniclastics interbedded with small mudstone lenses, near the end of the drillhole. Interval from 36.5 - 37m, contains blebby-bands of quartz, wispy-bands of tuff, and irregular, white bands with 1-2mm sized, clay altered feldspars; blebby-aggregates of pyrite are common within this zone.									
		<<Min: 36.06 - 37 3% Min: Pyrite>> Cm-size, subrounded blebs of pyrite, and FRA; associated with altered zone within MAft.									
		<<Min: 37 - 38.7 0.1% Min: Pyrite>>									
		<<Alt: 38.05 - 38.7 Moderate Calcite>>									
		<<Struc: 38.08 - 38.09 dominant foliation>>									
		End of Hole @ 38.7									