

## GeoSpark Logger ~ Drill Log

KZK

Hole Number:

K16-381

Prospect:	Infrastructure	Hole Type:	DD	Survey Type:	RTK DGPS	Logged By:	Ron Voordouw
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Challenger_Survey	Date Logging Start:	7/7/2016
UTM Easting	414976.017	Core Size:	HQ3	Azimuth:	360	Date Logging Complete:	7/9/2016
UTM Northing:	6814702.293	Casing Pulled?:	Yes	Dip:	-90	Drill Company:	Hytech
UTM Elev. (m):	1402.532	Casing Depth (m):	6	Length (m):	42.2	Drill Rig:	Tech 5000
Local Easting:		Stored?:	Yes	Claims Title		Drill Started:	7/4/2016
Local Northing:		Cemented?:	SP	Core Storage Loc .:	KZK Camp	Drill Completed:	7/5/2016
Local Elev. (m):				Hole Completed?:	Completed	Purpose:	Hydro
Comments:						Parent Hole:	

Project:

This hole was drilled for the prupose of installing a deep monitoring well.

Drilling collared into 50 cm of semi-massive sulphide at 5.7 m depth, followed by volcaniclastic and coherent rhyolite from 5.7-28.2 m, volcaniclastic mudstone from 28.2-35.8 m and then more volcaniclastic rhyolite to the EOH at 42.2 m depth. Semi-massive sulphide consists mostly of pyrite. Notable alteration includes a short interval of strongly silicified mudstone as well as chlorite alteration at the bottom of the hole.

Knight Piésold conducted 5 SPT tests in overburden and 3 packer tests in bedrock, and then installed a monitoring well.

## 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	7/4/2016		$\checkmark$	No survey of	lone; drill rig s	mply plac	ed on co	ollar pic	ket	
												_				
From (m)	To (m)			Rocktype	e & Description			From (r	m) To (i	n) Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	5.70	OVBN	Ove	rburden									I		1	1
5.70	6.17	OI	Heav	villy diss	eminated											
			sulp	hides in	host schist											
< <min: 5.7<="" td=""><td>- 6.17 309</td><td>% Min: Pyrit</td><td>e&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	- 6.17 309	% Min: Pyrit	e>>													
< <alt: -<="" 5.7="" td=""><td>17.04 We</td><td>eak-Modera</td><td>te Muscovite</td><td>e&gt;&gt; relict p</td><td>batches ranging fro</td><td>om trace to moderate</td><td>in intensity</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	17.04 We	eak-Modera	te Muscovite	e>> relict p	batches ranging fro	om trace to moderate	in intensity									
< <alt: -<="" 5.7="" td=""><td>42.2 Stro</td><td>ng Muscovi</td><td>te&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	42.2 Stro	ng Muscovi	te>>													
< <alt: -<="" 5.7="" td=""><td>42.2 Mod</td><td>lerate Ankei</td><td>rite&gt;&gt; occu</td><td>urs in wisps</td><td>and clots</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	42.2 Mod	lerate Ankei	rite>> occu	urs in wisps	and clots											
6.17	17.04	RHYv	Rhv	olite volo	caniclastic											
6.17 - 17.04	: Includes	ash-rich lay	ers													
< <min<sup>. 6 1<sup>.</sup></min<sup>	7 - 8 0 5%	Min <sup>.</sup> Pvrite	>>													
	0 1 10/ M	n: Durrhotit	in ooo	opiption with	atrongor OZ CB	altoration										
>>iviii1. 0 - 1	9.1 170 IVII	n. r ynnoule	III d55													
Printed on	3/20/2017	12:48:08 PI	M													



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		CONSULTANTS LTD.	Project:	oject: KZK					K16-381			
From (m)	To (m)	Rocktype & Description		From (m)	To (m)	Width	Sample	Au ppm A	Ag ppm	Cu %	Pb %	Zn %
< <min: 9.7<="" td=""><td>1 - 12.8 0.5% Min: Pyrrho</td><td>tite&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	1 - 12.8 0.5% Min: Pyrrho	tite>>										
< <min: 12<="" td=""><td>2.8 - 17.04 0.1% Min: Pyri</td><td>te&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	2.8 - 17.04 0.1% Min: Pyri	te>>										
< <min: 12<="" td=""><td>2.8 - 17.04 0.1% Min: Pyrr</td><td>hotite&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	2.8 - 17.04 0.1% Min: Pyrr	hotite>>										
< <vein: 9<="" td=""><td>.77 - 11.1 5% Quartz-Car</td><td>bonate 60 deg. &gt;&gt; Massive aphaitic qua</td><td>artz +/- carbonate veins; 5 cm inTT</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	.77 - 11.1 5% Quartz-Car	bonate 60 deg. >> Massive aphaitic qua	artz +/- carbonate veins; 5 cm inTT									
< <vein: 14<br="">like appea</vein:>	4.17 - 14.61 5% Tourmali arance	ine 30 deg. >> Thin tournaline vieins that	at leak into host cleavage, creating stitch-									
< <struc: 8<="" td=""><td>3.8 - 8.8 Moderate Foliation</td><td>on&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	3.8 - 8.8 Moderate Foliation	on>>										
17.04	24.15 RHYc	Rhyolite coherant volcani	cs									
< <min: 17<="" td=""><td>2.04 - 24.15 2% Min: Pyrit</td><td>e&gt;&gt; predominantly within foliation-parall</td><td>lel quartz-pyrite veins</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	2.04 - 24.15 2% Min: Pyrit	e>> predominantly within foliation-parall	lel quartz-pyrite veins									
< <alt: 17.<="" td=""><td>04 - 24.15 Moderate Mus</td><td>covite&gt;&gt; better-preserved MU OR altera</td><td>ation in RHYc unit</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	04 - 24.15 Moderate Mus	covite>> better-preserved MU OR altera	ation in RHYc unit									
< <struc: 1<="" td=""><td>17.04 - 17.04 Contact&gt;&gt;</td><td>FOL-parallel contact between RHYc and</td><td>d RHYv</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	17.04 - 17.04 Contact>>	FOL-parallel contact between RHYc and	d RHYv									
< <struc: 1<="" td=""><td>19.85 - 20.2 Strong Fault&gt;</td><td>&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	19.85 - 20.2 Strong Fault>	>>										
< <struc: 2<="" td=""><td>22.75 - 22.75 Moderate Fo</td><td>oliation&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	22.75 - 22.75 Moderate Fo	oliation>>										
24.15	28.21 RHYv	Rhyolite volcaniclastic										
< <min: 24<="" td=""><td>.15 - 28.21 0.5% Min: Py</td><td>rite&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.15 - 28.21 0.5% Min: Py	rite>>										
< <min: 24<="" td=""><td>.15 - 42.2 0.5% Min: Pyrr</td><td>hotite&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.15 - 42.2 0.5% Min: Pyrr	hotite>>										
< <alt: 24.<="" td=""><td>15 - 42.2 Weak-Moderate</td><td>e Muscovite&gt;&gt; relict patches ranging fro</td><td>m trace to moderate in intensity</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	15 - 42.2 Weak-Moderate	e Muscovite>> relict patches ranging fro	m trace to moderate in intensity									
< <struc: 2<="" td=""><td>27.1 - 27.1 Weak-Modera</td><td>te Foliation&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	27.1 - 27.1 Weak-Modera	te Foliation>>										
28.21	35.84 MDSt	Rhyolite tuff dominant mudstone										
< <min: 33<="" td=""><td>8.55 - 34.15 3% Min: Pyrit</td><td>e&gt;&gt; in foliation-parallel bands associate</td><td>ed with carbonate</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	8.55 - 34.15 3% Min: Pyrit	e>> in foliation-parallel bands associate	ed with carbonate									
< <alt: 32.<="" td=""><td>85 - 35.84 Moderate-Stro</td><td>ng Silicification&gt;&gt; band-like to clotty; rat</td><td>nges from strong to moderate</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	85 - 35.84 Moderate-Stro	ng Silicification>> band-like to clotty; rat	nges from strong to moderate									
< <struc: 3<="" td=""><td>31.5 - 31.5 Moderate &gt;&gt;</td><td>lower angle fabric that cuts across predo</td><td>pminant one</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	31.5 - 31.5 Moderate >>	lower angle fabric that cuts across predo	pminant one									
< <struc: 3<="" td=""><td>33.75 - 33.75 Strong Folia</td><td>ation&gt;&gt; associated with strong silicificati</td><td>on and pyrite mineralization</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	33.75 - 33.75 Strong Folia	ation>> associated with strong silicificati	on and pyrite mineralization									
35.84	42.20 RHYv	Rhyolite volcaniclastic										
< <alt: 40.<="" td=""><td>55 - 42.2 Moderate Chlor</td><td>ite&gt;&gt; forms bands with quartz</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	55 - 42.2 Moderate Chlor	ite>> forms bands with quartz										
< <struc: 3<="" td=""><td>37.8 - 37.8 Weak-Modera</td><td>te Foliation&gt;&gt;</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	37.8 - 37.8 Weak-Modera	te Foliation>>										
End of H	Hole @ 42.2											