

An Auger Drill Report on the KRYPTOS Property
submitted as a TECHNICAL REPORT for **YMEP Grant 18-003**
on the KRYPTOS Target Evaluation

Comprised of following Quartz Claims:

KRYPTOS 1-60

YE90207-YE90266

Claims lie in two Mining Districts as follows:

KRYPTOS 1-14

KRYPTOS 15-60

YE90207-YE90220

YE90221-YE90266

Dawson Mining District

Mayo Mining District

Owner: Gordon Richards

Location

115P/01 & 02

Camp on claims at

UTM 424,440E, 7,005,215N, Elev 755 m

NAD 83, UTM Zone 8

Field work performed under the supervision of

Gordon Richards

During the period May 23 to June 2, 2018

Report written by Gordon Richards

January 3, 2019

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DIGITAL COPIES:

Report in PDF, Table 2 as xls File, and all figures as PNG< JPG< and BMP Files.

INTRODUCTION.

The general area of the KRYPTOS claims was prospected with the aid of YMEP grants awarded to G Richards in 2016 (16-056) and to Jeff Mieras in 2017 (17-001). The property is located on gentle to moderate slopes across the Klondyke Highway about 30 km south Stewart Crossing within NTS map sheets 115P01 & 02. Access was made by vehicle and walking from a camp shown on Figures 5 to 10 to drill sites shown on Figure 10.

The geology of the area has been described on Canadian Geoscience Map 7 of southwestern McQuesten and parts of northern Carmacks by Ryan, J.J., Colpron, M., and Hayward, N., 2010. Figure 3. The area is shown on that map to be underlain by the Early Mississippian aged Reid Lakes Batholith that is a weakly Kspar-porphyrific, medium-grained granite to quartz monzonite intruding its own volcanic pile metasedimentary rocks of the Finlayson Assemblage (?) in the east portion of the claims. The claims lie entirely within Reid glaciated terrain with the possible occurrence of pre-Reid glaciated terrain along ridge tops. Figure 4. Loess, about 25 cm thick, blankets most slopes.

Regional Geochemical Data (RGS) is available and provides geochemical data for numerous elements of stream sediments collected throughout the area including three creeks draining the general area of the claims. Figures 5-8. The RGS samples were collected in 1986 (OF 1650) and re-analyzed in 2011 using more sophisticated analytical techniques and released in Open File 2012-09. Geochemical data from 278 selected samples that are lying only within the pre-Reid glaciated area within Yukon Tanana Terrain on NTS 115P were used to recalculate thresholds for 70th, 80th, 90th, 95th and 98th percentiles for a number of elements. It was believed that this data would provide a more representative data-set on which to evaluate exploration potential for the area. The claims lie a few km east of the area of recalculated thresholds. Using these recalculated threshold values, anomalous results for Cu, Au and other elements were seen to occur in two RGS samples, one draining the claims area (RGS 3230) and one draining a valley to the south of the claims (RGS 3231). A third RGS sample (RGS 3288) is located down-ice from the claims and contained anomalous Mo and Sb. A fourth RGS sample (RGS 3229) draining the same valley south of the claims as RGS

3229 contained no anomalous values. Refer to Figures 5 to 8 for location of these samples and their results.

In 2017 the KRYPTOS 1-60 claims were staked June 12 to 14 and recorded June 14 to cover known anomalous zones identified from the 2016 work and their extensions. An MMI soil and black spruce twig sampling prospecting program was undertaken on the claims June 16 to 22 and July 1, 2017 to define the extent of known geochemically anomalous zones and search for additional targets. Results of that work form the targets that were tested by an auger drill program in 2018 and described below.

Results of the 2016 and 2017 field work were successful in defining four pronounced multi-element anomalous zones in the MMI soil results that have porphyry geochemical signatures. The largest measures 1600m long by 300 to 500m wide and crosses the Klondyke Highway. Other zones measure 600m by 600m, 900m by 300m and 900m by 500m open to the north. All of these zones are characterized by MMI samples having high response ratios for Cu. Response ratios are multiples of background values that are calculated from an average of the lower quartile. Response ratios for Au are high in over half the samples within the Cu zones. A few high Mo response ratios occur in samples within two of the Cu zones. The geochemical response is interpreted to be indicative of underlying porphyry mineralization.

In 2018 an auger drilling program was undertaken to collect rock samples underlying the porphyry targets to determine the cause of the Cu-Au geochemical anomalies.

Results of the 2018 work were disappointing. Nine six-inch diameter holes were drilled to a 40-foot depth or less without encountering bedrock. All holes encountered till and in some holes fine silt of possible lacustrine origin with very few boulders or cobbles.

HISTORY.

Previous exploration activity occurred in the 1980's by a Mr Jim Carson with the staking of both quartz and placer claims. All previous quartz claims known to

have been staked are shown on Figures 5 to 8 as grey dashed lines with their dates of staking. Only minimal hand trenching was recorded. All of this hand trenching was on narrow quartz veins within schist and micaceous quartzites of the Finlayson Assemblage done north and east of the KRYPTOS claim block along steep slopes into Crooked Creek. Work is summarized in Minfile Report 115P 038. Assessment Report 019539 provides some detail to the sampling. Samples submitted by Carson report grades up to 0.36 oz/T Au from selected samples but reports by personnel working for Curragh Resources, Erickson Gold Mining Corp., and Noranda Exploration Company, Limited all reported no gold from samples collected over greater widths. One claim block, the FIREDEVIL staked in 1987 covers the biggest porphyry target defined by the present survey although no outcrop is known to exist in this area. Placer claims are shown as a pink line along one creek in the south of Figures 5 to 8. No placer production was recorded or evident along the creek that was staked.

Work in 2016 by the writer and funded by YMEP 16-056 located five poorly defined patterns of strong multi-element geochemical anomalies in MMI soil samples with porphyry mineralization signatures. Work in 2017 (17-001) started with staking the KRYPTOS 1-60 quartz claims followed by work that defined the limits of the geochemically anomalous zones. Previous work funded by YMIP and YMEP over the past six years by the writer and his assistant, Jeff Mieras, within the Reid Lakes Batholith has been successful in defining about ten geochemical targets based on MMI soil samples and to a lesser degree black spruce twig samples all with very similar porphyry signatures.

In 2018 an auger drill program as described below was undertaken to sample rock chips from bedrock beneath two of the main geochemically anomalous targets. The work described in this report was funded largely by YMEP grants 16-056 awarded to G Richards and by grants 17-002, and 18-003 awarded to Jeff Mieras. A few additional costs were paid for by Richards.

CLAIMS.

Table 1 is a list of all claims forming the property. The claims lie in the Mayo and Dawson Mining District with the Klondyke Highway forming the boundary. The Registered Owner is Gordon G Richards. The work described in this report was funded largely by YMEP grant 18-003 awarded to Jeff Mieras. A few additional costs were paid for by Richards. Expiry dates listed in Table 1 include all work filed as representation work to date.

Table 1. Claim Status

Claim Name	Grant No.	Expiry Date	Mining District
KRYPTOS 1-14	YE90207-YE90220	2021/06/15	Dawson
KRYPTOS 15-60	YE90221-YE90266	2021/06/14	Mayo

GEOLOGY.

Bedrock geology is best described on Canadian Geoscience Map 7 of *Southwestern McQuesten and Parts of Northern Carmacks* by Ryan, J.J., Colpron, M., and Hayward, N., 2010. See Figures 3 and 4. The claims area is shown on that map to be underlain by the Early Mississippian aged Reid Lakes Batholith in the west portion of the claims in fault contact with metasedimentary rocks of the Finlayson Assemblage (?) in the east portion of the claims.

The Reid Lakes Batholith is an 80 km long unmetamorphosed Early Mississippian aged batholith that intrudes its own volcanic pile. It is a weakly Kspar-porphyritic, medium-grained granite to quartz monzonite. Two outcrops of the batholith occur at the northwest side of the claims but were not examined by the writer.

The Finlayson Assemblage is a Late Devonian to Early Mississippian metavolcanic and metasedimentary assemblage. The metasediments such as occur on the property are described as carbonaceous quartzite to mica-quartz schist, black to white quartzite, with schist and garnet schist interlayers; and rare black phyllite, possibly equivalent to Nasina Formation, or simply a carbonaceous member of the Snowcap Assemblage. Two closely spaced outcrops of the metasedimentary rocks were located along the most north-easterly sample line. They were both dark grey micaceous quartzite.

Glaciation in the area of the property is described as Reid in age on several government maps although pre-Reid glaciation may have occurred on ridge tops north and south of the claims. Pre-Reid glaciation is possibly older than 500,000 years (Jeff Bond, personal communication, 2012). Reid glaciation began 200,000 years ago and ended about 50,000 years ago. Younger McConnell Glaciation ended about 20,000 years ago. Jeffrey Bond and Panya Lipovsky of the Yukon Geological Survey have recently provided a number of papers, maps and posters on the surficial geology of the pre-Reid glaciated area with descriptions related to exploration.

Uppermost soil is an organic soil from almost absent to less than one cm thick on dryer slopes and in excess of 10 cm thick over gentle poorly drained slopes. Loess occurs on all slopes, generally about 20 to 30 cm thick beneath the organic soil. This loess is believed to have formed in late stages or soon after the end of McConnell Glaciation. A few subround to round pebbles do occur in the loess and have probably worked themselves up into the loess from underlying till.

Till is commonly found beneath the loess containing well rounded cobbles and smaller rocks of foreign origin.

PREVIOUS SURVEYS.

Previous exploration activity occurred in the 1980's by a Mr. Jim Carson with the staking of both quartz and placer claims. All previous quartz claims known to have been staked are shown on Figures 5 to 8 as grey dashed lines with their dates of staking. Only minimal hand trenching was recorded. All of this hand trenching was on narrow quartz veins within schist and micaceous quartzites of the Finlayson Assemblage done north and east of the KRYPTOS claim block along steep slopes into Crooked Creek. Work is summarized in Minfile Report 115P 038. Assessment Report 019539 provides some detail to the sampling. Samples submitted by Carson report grades up to 0.36 oz/T Au from selected samples but reports by personnel working for Curragh Resources, Erickson Gold Mining Corp., and Noranda Exploration Company, Limited all reported no gold from samples collected over greater widths. One claim block, the FIREDEVIL staked in 1987 covers the biggest porphyry target defined by the present survey although no

outcrop is known to exist in this area. Placer claims are shown as a pink line along one creek in the south of Figures 5 to 8. No placer production was recorded or evident along the creek that was staked.

Recalculated threshold values of government RGS samples provided anomalous results for Cu, Au, Ag and other elements with high (70%tile to 98%tile) threshold values from one sample (RGS 3230) from a creek draining the claim area containing all the porphyry targets identified by MMI soil samples.

During 2016 and 2017 over 200 MMI and black spruce twig samples were collected along lines spaced 300 m apart with a sample interval of 100 m. Black spruce twig samples proved ineffectual in helping develop the anomalous metal patterns so only the MMI sample results were used to establish the limits of anomalous metals.

The main target defined from this work is a 1600 m long by 300 to 500 m wide zone of consistently anomalous Cu with some of the samples also anomalous for Au and Ag as shown on the figures. Anomalous Au and Ag are also scattered across the property with about the same frequency as inside the Cu anomalous zone. Two other smaller porphyry targets occur with the one along an old cat trail selected for auger drilling by the current program.

The McQuesten aeromagnetic survey by Kiss, F., and Cryle, M., 2009 is available as Geoscience Data Repository through Natural Resources Canada. Tilt and horizontal derivative maps were useful in showing where magnetitic susceptibility is low on other porphyry targets within the Reid Lakes Batholith but did not help identify porphyry targets on the Kryptos targets.

2018 AUGER DRILL PROGRAM.

Procedures.

- May 23. Richards in Whitehorse. Mob.
- May 24. Richards and Mieras in Whitehorse. Mob.
- May 25. Richards and Mieras drove to Project. Set up camp.
- May 26. Richards and Mieras cut drill sites. Drill arrived.
- May 27. Drilled along powerline.
- May 28. Drilled along powerline.

May 29. Drilled along powerline.

May30. Richards and Mieras to Mayo bought food. Drilled along powerline.

May 31. Drilled along powerline, moved and drilled along old cat trail.

Jun 1. Drilled along old cat trail.

Jun 2. Finished drilling along old cat trail and moved drill to highway.

Summary: Richards 11 days. Mieras 10 days. Driller 8 days.

The Kryptos Project of J. Mieras was done in conjunction with the nearby All In Project of G. Richards. Costs were shared and same camp was used. Mob costs were used on the Kryptos and demob costs were used on the All In Project.

Permit LQ00483 was granted to Gordon Richards by YESAB for an auger drill program on the Kryptos and All In Projects. A track mounted Morooka MST 1100 equipped with a Meranne auger drill was used in an attempt to collect rock fragment samples from bedrock lying beneath overburden over the Powerline Target measuring 1600 m by 400 m and the North Target measuring 600 m in diameter to determine the cause of these zones of geochemically anomalous metal values. Nine six-inch diameter holes were drilled to a 40-foot depth or less across these zones as shown on Figure 10.

Procedure was to set up the drill on as flat a surface as possible. Drill samples from the first 15 feet spun out of the holes cleanly and could be examined with confidence as to the depth each sample represented. As drilling progressed below this depth samples would not rise to surface cleanly so typically five feet would be drilled and then the rods would be raised in order to examine and sample that interval. One sample for each five-foot run would be screened in water in order to examine for angular rock chips and overall composition of the sample. One sample from the bottom of each hole was panned for gold colours. One sample from across the bottom five feet of each hole was collected for assay to determine if elevated metal values were present.

Results.

Nine six-inch diameter holes were drilled to a 40-foot depth or less without encountering bedrock. All holes encountered till. All holes were drilled in

permafrost. In KR 8 and KR 9 the bottom 30 ft and 25 ft respectively encountered dark clay rich gumbo that could be lake sediments.

Position of the nine auger drill holes relative to the claim outline and the geochemical anomalous zones is shown on Figure 10. Drill Logs are provided in Table 2 and assay results for samples collected at the bottom of each hole is provided in an Appendix. Panned samples returned no gold. Assay results were low for all elements. The soil geochemical anomalies remain untested and continues to provide an excellent target for discovery of underlying porphyry mineralization.

Table 2. KRYPTOS 2018 AUGER DRILL HOLE LOGS						
#	UTM E	UTM W	ELm	ft	ft	Description
KR1A	424,738	7,004,225	763	0	8	till. Boulder at 8 ft stopped hole
KR1B				0	5	silt, sand, gravel
				5	15	gravel. Boulder at 15 ft stopped hole
KR 2	424,813	7,004,048	765	0	10	sandy gravel.
				10	15	start clay rich till with pebbly sections
				15	20	gravel, possibly washed.
				20	27	clay rich till or gravel. Boulder stopped hole at 27 ft.
KR 3A	424,851	7,003,951	763	0	7	sandy till with fine pebbles. 7 ft hole stopped by boulder.
KR 3B				0	8	as above. Boulder stopped hole at 8 ft.
KR 3C				0	8	sandy gravelly till
				8	13	clay rich till. Boulder stopped hole at 13 ft.
KR 3D				0	12	till. Boulder at 13 ft stopped hole
KR 4A	424,890	7,003,869	765	0	8	till, qtz chips common at 7 ft. Boulder at 8 ft stopped hole.
KR 4B				0	8	till. Boulder at 8 ft stopped hole
KR 4C				0	5	fine sandy till.
				5	9	gravelly, difficult drilling. Boulder at 9 ft stopped hole.
KR 5A	424,920	7,003,787	763	0	18	fine-grained till. 16 ft start gravelly section. Hole stopped at 18 ft
KR 5B				0	14	fine-grained till.
				14	21	gravelly, minor sand and clay. Cobbles and cave stopped hole.
KR 6	424,696	7,005,699	758	0	5	till with pebbles common
				5	15	fine-grained till, no cobbles, few 1/2inch pebbles
				15	40	till with 5% pebbles.
KR 7	424,888	7,005,777	757	0	20	till, 15-20 ft very high clay content
				20	40	gravel or gravelly till
KR 8	424,974	7,005,993	740	0	10	till
				10	40	dark grey clay gumbo. No grit. Gets very dark with depth
KR 9	425,033	7,006,101	746	0	15	till
				15	40	dark grey clay gumbo. No grit.
Note: All pebbles were round to subround except where noted otherwise.						
UTM coordinates are NAD 83 Zone 8. NTS Map Sheet 115P02.						

CONCLUSIONS.

Results of the drill program failed to provide any direct evidence that would explain the cause of the main soil geochemical anomalous zones. Assays of bottom samples from all holes returned low metal values. Panned samples from samples collected at the bottom of all holes contained no visible gold.

RECOMMENDATIONS.

It is recommended that diamond drilling or another drilling method capable of sampling much deeper than auger drilling be conducted over the soil geochemical anomalies in order to explain the cause of the anomalies. Obtaining porphyry style mineralization would assist considerably in optioning the property to a resource company particularly if grades were of sufficient tenor.

STATEMENT OF QUALIFICATIONS.

I, Gordon G Richards, with business address at 6410 Holly Park Drive, B.C., V4K 4W6, do hereby certify that:

1. I am a practising geologist holding a B.A.Sc. (1968) in Geology from The University of British Columbia, and an M.A.Sc. (1974) in Geology from The University of British Columbia.
2. I have been practicing my profession as a geologist for over 40 years and as a consulting geological engineer since 1985. I have work experience in western areas of the United States, Alaska, Canada, Mexico and Africa.
3. I have based this report on my own field work and supervision of field work by the driller, Zdenek Bidrman and assistant Jeff Mieras during the period of May 23 to Jun 2, 2018 and on the results generated by that field work.

Respectfully submitted,

Gordon G Richards,