21-068
2021 YMEP KRYPTOS Final Report
Target Evaluation Module: Hardrock Type
Gord Richards

The Kryptos Project Area straddles the Klondyke Highway 30 km south of Stewart Crossing within NTS map sheet 115P01. The target is centered on 63^0 9'N latitude and 136^0 28'W longitude.

The Project Area lies within the Mayo Mining District and is comprised of the KRYPTOS 15-80 quartz claims. He adjacent KRYPTOS 1-14 quartz claims lie in the Dawson Mining District

Access to the area of interest was by truck from Whitehorse to a cabin near Mayo from where the crew drove daily to the worksite.

Previous Work by Applicant.

Work in 2016 in the Project Area located four patterns of strong multi-element soil geochemical anomalies with a porphyry Cu-Au signature measuring from 300m wide to 1500m long all of which were open in several directions. The largest of these porphyry targets measures up to 500 m wide by 1500 m long. Refer to the maps. Although it is fairly well-defined, additional soil samples proposed in this report will give a better definition to its size and strength. Interestingly, quartz claims staked by Jim Carson in the 1980's are positioned exactly over this anomaly. There is no outcrop over this target and no previous work description in the government records. Carson may have defined the target by collection of conventional soil samples although this is only conjecture.

Work in 2017 on the Project Area staked the KRYPTOS 1-60 quartz claims and defined a new and geochemically different zone of anomalous metal values in the southeastern third of the claims on a northwest facing hillside above the porphyry targets. It is characterized by consistently very high response ratios for As, Sb, Bi, W, and numerous high response ratios for Au, Cu, Fe, Zn, and Cs. Bedrock throughout this zone was believed to be metasediments as one outcrop of micaceous quartzite was noted during the soil sampling and the area is roughly within the area of metasediments described on Geoscience Map 7.

Work in 2019 consisted of staking the KRYPTOS 61-80 quartz claims, collecting 320 MMI soil samples, and collecting 38 rock chip samples of float of which 34 were assayed across these new claims and adjacent to previously existing KRYPTOS claims. MMI soil results defined a pattern of anomalous As, Sb, W, and Bi measuring roughly 2,500 m in diameter and containing two discrete zones of anomalous Au measuring 1000 and 2000 m in maximum length and each up to 500

m wide. Thresholds for anomalous patterns are response ratios of 5 except for As where a response ratio of 8 is used as displayed on the figures. Au response ratios of 10 to 227 occur in the South Zone over a maximum length of 2000 m open to the west. Au response ratios of 10 to 20 occur in the North Zone over a maximum length of 1000 m. Other elements mimic the anomalous As and other pathfinder elemental patterns as follows: Ca with response ratios in excess of 12 occur mainly beyond the pattern of high As but this could be a formational feature rather than related to hydrothermal alteration; rare earth metals Eu, Gd, La, and Sc also form patterns of high response ratios roughly coincident with the high As and other pathfinder elements. The high rare earth metal values could be a formational feature or could be associated with a hydrothermally altered zone defined by the patterns of anomalous As and other pathfinder elements but are not considered a lead to significant rare earth mineralization. Other persistently very strong response ratios also occur for Mn, Fe, and Zn with less persistent but still strongly anomalous response ratios for Cu. Ag and Pb have notably low values.

Rock chip assays of angular chips in soil pits provided little support to explain the anomalous soil geochemistry. One sample, Y87, contained weakly anomalous Au of 15.9 ppb with 15.9 ppm As, 5.1 ppm Sb, and background values for Bi and W. It was “subangular phyllite/schist with limonitic vuggy irregular fractures with some quartz, darker than nearby schist samples”.

Work in 2020 involved the sampling of colluvium and angular float from pits dug on one of the anomalous Au patterns of MMI soils and to collect a limited number of soils at and adjacent to the very high Au response ratio of 227 from sample number Y38 on a hillside to a small creek flowing northwards off the main ridge. No high Au values were obtained from the 73 rock samples collected. Three soil samples confirmed the high Au response ratio from Y38, yielding values of 112, 129, and 509 from nearby samples.

Work in 2021 had two target projects.

The first was designed to collect MMI samples around sample Y38 on a tight 20m by 20m grid in an attempt to define the extent and more importantly the direction of any anomalous Au values. Results were highly successful as depicted on Figure X. A zone of very high Au response ratios from the MMI samples measures 40 m wide by 160 m long trending northeast. The response ratios are shown on Figure X and in the Response Ratio Table 1. Highly anomalous arsenic shown on Figure X is coincident with the very high Au values and highly anomalous antimony, not shown, is evident from the Response Ratio Table 1 to also be coincident with the very high gold values.

Carson Fault is described on Geoscience Map 7 to be determined by the first vertical derivative of a government airborne magnetic survey where it is seen as a

strong magnetic linear. The fault was named by the writer after a prospector, Jim Carson, who staked numerous placer and hardrock claims in the general area of the Kryptos claim block throughout the 1980's. It's position adjacent to the above-described anomalous Au-As-Sb zone is interesting from a genetic viewpoint. The fault could also be post mineral and offset any Au mineralization in either direction. All angular float in the area of the samples was carbonaceous quartzite with low muscovite content.

The second was to collect MMI soils across the porphyry-size target in order to fill in samples between the previous widely spaced sample lines and thereby confirm the existence of this geochemical target as a viable target for porphyry mineralization. Refer to Figure W where 2021-samples are shown as diamond symbols and previously collected samples are shown as circles. Results were not 100% supportive as several samples collected within the previously defined anomalous Cu zone were below the response ratio of 5 that was used to define this target. However enough samples were anomalous and overall, the porphyry target remains to be tested by drilling. Geoscience Map 7 shows this target to be underlain by monzogranite of the Reid Lakes Batholith Complex.

Both targets can be evaluated by percussion drilling using the writer's present Class 1 Notification Permit that expires on July 28, 2022 and covers drilling of both targets.

Kryptos 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 between the districts. The registered owner is Gordon G Richards.

Table 1. Claim Status

Claim Name	Grant No.	Expiry Date	Mining District
KRYPTOS 1-14	YE90207-YE90220	2025/06/15	Dawson
KRYPTOS 15-60	YE90221-YE90266	2025/06/14	Mayo
KRYPTOS 61-80	YE93631-YE93650	2026/08/02	Mayo

Work Program.

Sample sites were located by GPS and hipchain. Soil samples collected on gentle to flat terrain were all loess. This describes the samples over the porphyry target. Soil samples collected on moderate slopes of the Au Zone were tills with

mixed angular colluvium. Here the loess seen on flat terrain is presumed to have been removed by weathering. All work was completed by Gord Richards with his daughter Michelle Richards assisting him because his usual assistant, Jeff Mieras, was unavailable. Michelle Richards has assisted the writer on several exploration projects in B.C.

Disturbance was minimal with all soil pits backfilled. All garbage was removed for proper disposal in Mayo. All work was conducted under a Class 1 Notification under the writer's name.

MMI Soil Sampling.

MMI soil samples were shipped to SGS Minerals Services lab in Burnaby for analyses.

In the SGS Lab, samples were not dried or prepared in any way. The MMI process includes analyses of an unscreened 50-g sample using proprietary multi-component extractants. Metals were determined by ICP-MS in the parts per billion range.

Response Ratios were calculated for Ag, As, Au, Bi, Cu, Mo, Ni, Pb, Sb, Ti, U, W, and Zn. The average value for results of the lower quartile were calculated for each element. One-half of detection limit was used for those samples with values reported as less than detection limit. Then each result was divided by the lower quartile average to obtain its response ratio. A response ratio of 10 or more is considered very significant for indicating underlying mineralization. Lesser values of 5 to 10 can also be important particularly where more than one element has such a value. Response ratios can best be thought of as a multiple of background in interpreting results.

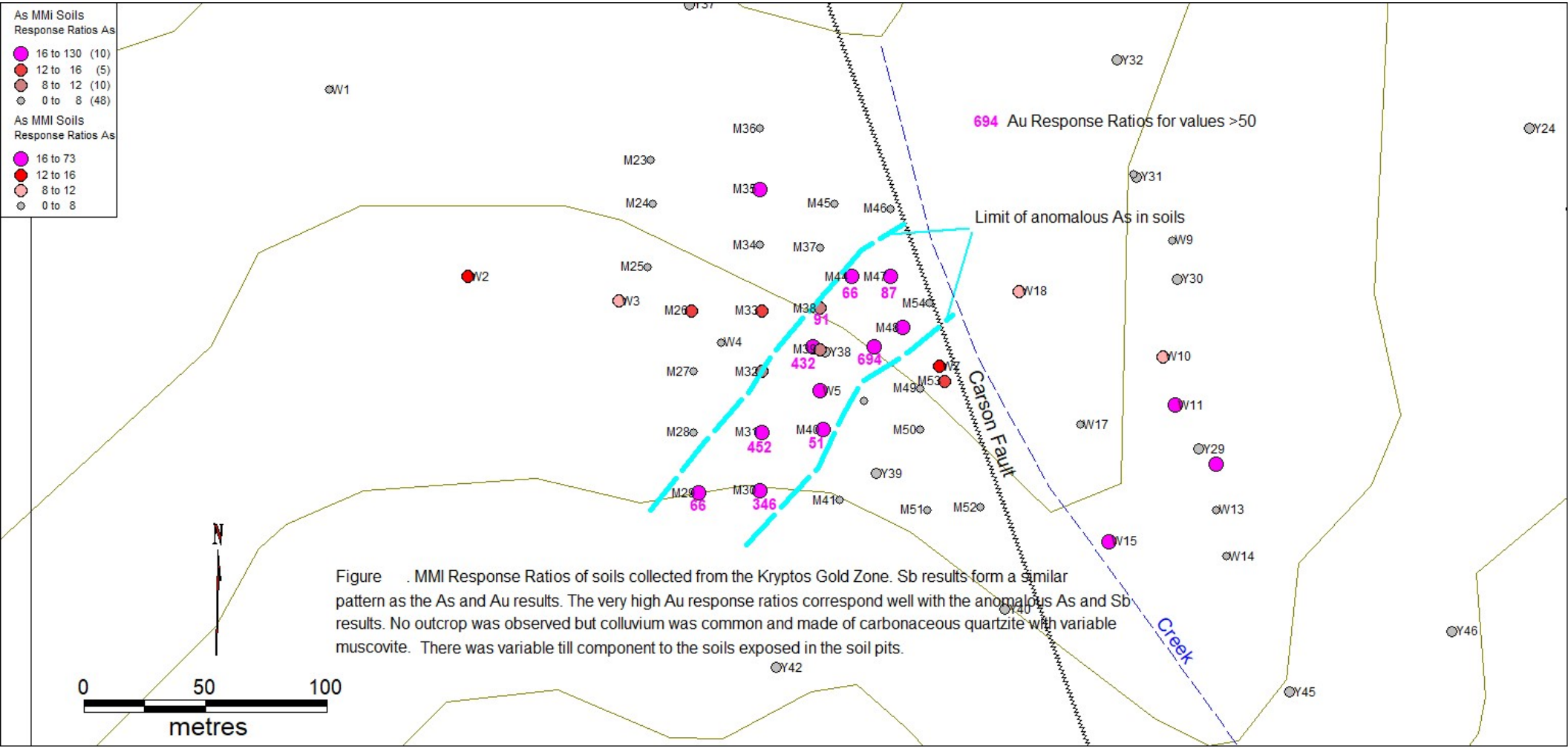

Figure . MMI Response Ratios of soils collected from the Kryptos Gold Zone. Sb results form a similar pattern as the As and Au results. The very high Au response ratios correspond well with the anomalous As and Sb results. No outcrop was observed but colluvium was common and made of carbonaceous quartzite with variable muscovite. There was variable till component to the soils exposed in the soil pits.

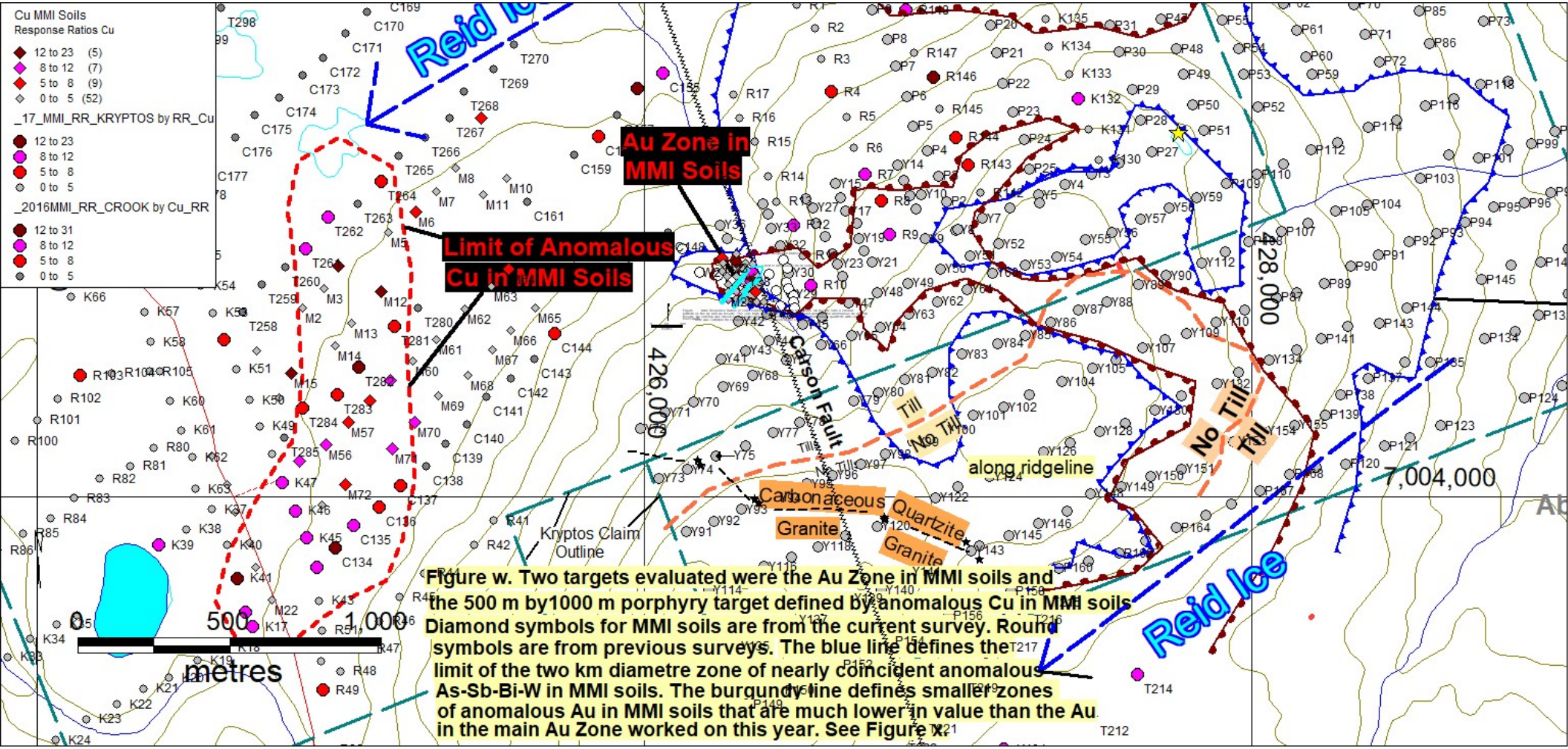

Figure w. Two targets evaluated were the Au Zone in MMI soils and the 500 m by1000 m porphyry target defined by anomalous Cu in MMI soils. Diamond symbols for MMI soils are from the current survey. Round symbols are from previous surveys. The blue line defines the limit of the two km diametre zone of nearly coincident anomalous As-Sb-Bi-W in MMI soils. The burgundy line defines smaller zones of anomalous Au in MMI soils that are much lower in value than the Au in the main Au Zone worked on this year. See Figure x.

ID	UTM 83E	UTM 83N	Ag	As	Au	Bi	Cu	Mo	Ni	Pb	Sb	Ti	U	W	Zn
M1	424722	7004481	3	6	2	2	2	4	2	10	2	121	4	5	2
M2	424872	7004623	1	8	2	5	1	6	1	8	2	610	1	13	3
M3	424943	7004686	3	1	1	1	1	2	1	6	0	1	1	1	0
M4	424990	7004760	4	1	5	1	12	2	10	3	2	0	8	1	1
M5	425155	7004872	2	1	2	1	2	3	4	5	1	2	2	1	14
M6	425247	7004938	3	1	2	1	7	2	14	6	2	3	7	1	5
M7	425312	7005006	1	10	2	4	2	5	1	27	3	245	1	6	2
M8	425378	7005082	2	1	2	2	3	1	10	16	2	10	4	1	17
M9	425461	7005248	2	4	2	2	5	2	9	9	3	30	5	3	5
M10	425546	7005048	1	8	3	4	2	4	2	12	3	88	2	3	17
M11	425469	7004994	1	4	1	4	2	4	1	9	3	55	1	2	20
M12	425132	7004675	4	1	2	1	12	3	19	6	2	2	11	1	4
M13	425034	7004573	2	1	1	1	4	2	10	7	1	8	6	1	2
M14	424980	7004498	1	4	2	1	1	3	1	5	1	30	1	1	1
M15	424837	7004406	3	4	3	1	20	7	28	8	4	10	10	1	14
M16	424796	7004328	4	1	3	1	3	1	4	9	1	2	6	5	1
M17	424574	7004134	7	6	4	1	3	4	2	17	1	110	4	5	1
M18	424623	7004042	1	12	2	3	2	5	2	20	3	189	3	7	2
M19	424649	7003951	1	4	2	3	2	2	3	9	1	33	1	1	13
M20	424699	7003848	1	1	1	1	2	2	2	12	0	1	2	1	1
M21	424717	7003767	7	1	2	1	2	1	2	23	0	3	2	1	2
M22	424770	7003662	1	1	2	1	1	4	1	9	1	17	2	1	1
M23	426255	7004787	7	1	4	1	5	1	5	8	2	2	3	1	18
M24	426256	7004769	2	1	1	1	1	2	4	1	2	0	5	1	2
M25	426254	7004743	4	4	4	1	2	6	1	4	5	6	2	1	4
M26	426272	7004725	2	12	1	3	3	7	2	3	7	28	3	3	7
M27	426273	7004700	2	1	2	1	2	3	2	2	2	2	2	1	4
M28	426273	7004675	3	2	2	1	2	3	2	1	3	3	3	1	4
M29	426275	7004650	3	46	66	1	1	1	1	1	71	2	2	1	1
M30	426300	7004651	4	58	346	1	1	2	1	1	43	3	2	1	2
M31	426301	7004675	6	130	452	1	1	1	1	2	203	2	2	1	2
M32	426301	7004700	4	10	35	1	2	2	2	1	13	2	2	1	2
M33	426301	7004725	3	14	8	1	2	2	4	3	17	5	3	1	6
M34	426300	7004752	3	6	3	1	1	6	2	3	4	8	2	1	5
M35	426300	7004775	3	16	4	8	23	7	22	6	35	12	6	2	25
M36	426300	7004800	6	1	4	1	1	4	1	1	1	0	2	1	2
M37	426325	7004751	2	6	14	1	3	1	7	4	12	3	5	1	16
M38	426325	7004726	3	8	91	1	3	1	8	2	39	2	6	1	11
M39	426325	7004709	4	8	432	1	3	2	3	0	19	0	2	1	1
M40	426326	7004676	4	36	51	1	1	1	1	1	85	5	1	1	2
M41	426333	7004647	2	1	2	1	1	3	10	2	7	2	4	1	5
M42	426343	7004688	2	1	2	1	2	3	4	1	5	0	1	1	1
M43	426347	7004710	5	56	694	1	9	1	12	2	99	3	7	1	5
M44	426338	7004739	4	34	66	1	7	1	8	3	51	5	6	1	7
M45	426331	7004769	1	1	4	1	1	2	4	2	5	2	3	1	8
M46	426354	7004767	2	6	4	1	2	2	7	4	19	10	4	1	3

ID	UTM 83E	UTM 83N	Ag	As	Au	Bi	Cu	Mo	Ni	Pb	Sb	Ti	U	W	Zn
M47	426354	7004739	3	16	87	1	9	1	11	3	26	2	6	1	8
M48	426359	7004718	3	18	13	2	15	2	25	2	31	4	9	1	14
M49	426366	7004693	1	2	2	1	2	1	9	7	11	2	4	1	11
M50	426366	7004676	3	4	4	1	6	1	7	4	9	4	7	1	7
M51	426369	7004643	0	1	0	1	0	2	0	0	1	9	0	1	1
M52	426391	7004644	1	1	4	1	2	1	7	1	5	0	2	1	3
M53	426376	7004696	1	12	1	1	1	2	5	6	17	10	4	1	25
M54	426370	7004728	1	2	4	1	1	2	12	1	10	2	5	1	12
M55	424863	7004118	3	1	3	1	9	2	7	6	1	2	6	1	1
M56	424950	7004171	5	1	3	1	8	4	13	1	1	0	8	1	1
M57	425025	7004245	2	4	2	1	7	5	9	4	3	18	5	1	2
M58	425095	7004316	3	1	2	1	6	7	4	0	1	0	4	1	0
M59	425161	7004383	1	2	2	2	10	6	7	7	3	18	7	3	1
M60	425236	7004448	1	1	2	1	3	4	9	2	3	18	5	2	1
M61	425312	7004517	1	6	0	3	4	17	4	7	6	22	2	3	21
M62	425406	7004620	1	14	1	3	1	5	1	3	4	18	0	3	7
M63	425494	7004692	1	4	1	1	1	6	1	1	2	14	0	1	8
M64	425551	7004750	1	10	1	3	5	5	9	11	5	46	3	3	17
M65	425638	7004624	1	8	1	4	2	6	2	11	5	37	1	2	52
M66	425558	7004547	1	2	1	1	0	2	1	1	1	8	0	1	3
M67	425498	7004486	4	4	4	1	1	5	1	3	3	3	1	1	2
M68	425418	7004402	1	34	0	16	1	10	1	16	8	193	1	10	10
M69	425320	7004334	2	8	1	1	1	7	4	5	3	30	3	3	4
M70	425243	7004246	3	1	2	1	9	3	8	1	1	2	6	1	1
M71	425169	7004160	4	1	5	1	9	6	4	0	1	0	6	1	1
M72	425014	7004041	1	6	3	2	5	4	6	7	3	31	5	3	3
M73	424935	7003973	1	8	1	2	4	7	4	2	5	35	2	3	5