

**January 31, 2017.**

# **Final Report**

**YMEP Grant 16-041**

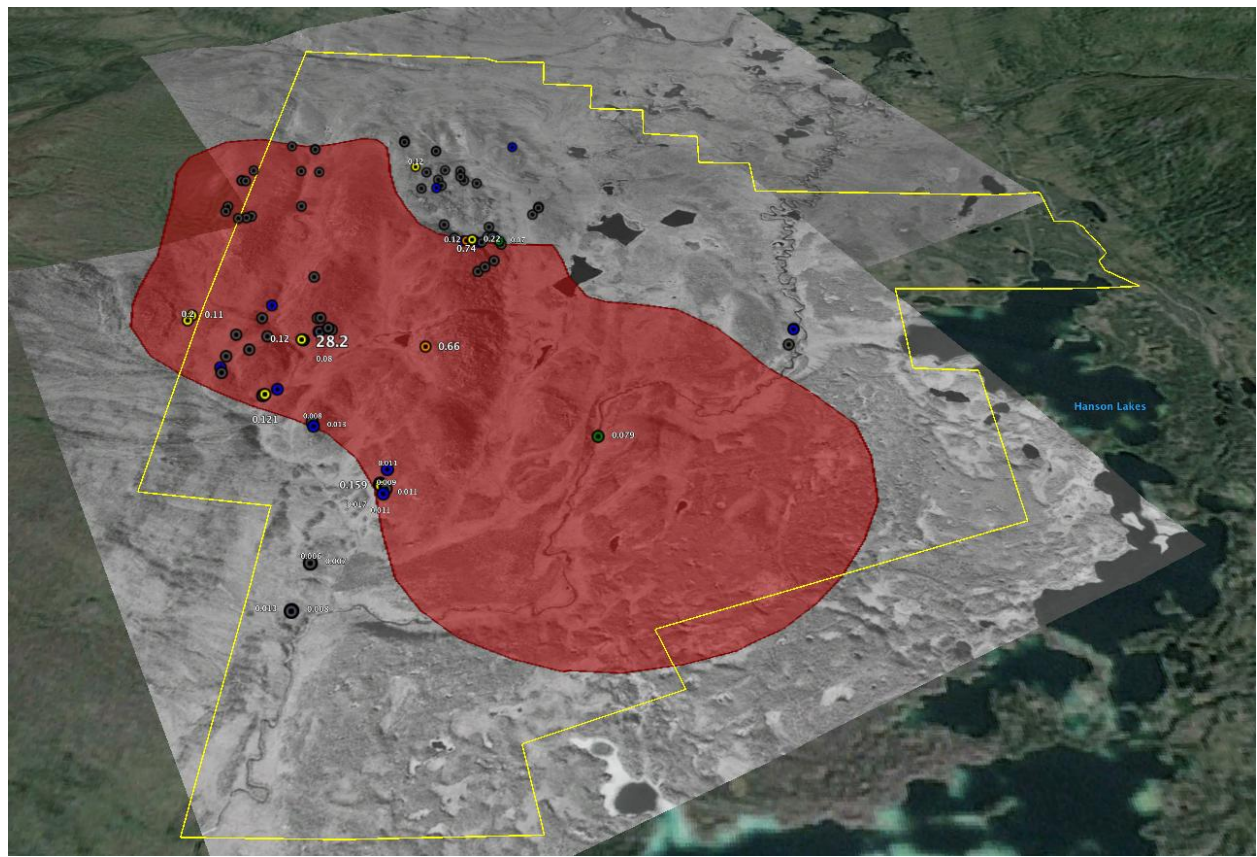
**McConnells**

**Jest**

# Final Report for YMEP Grant 16-041 “McConnells Jest.”

Targeting Intrusion Related Gold within the “Hanson Lake pluton”

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January 2017



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- 1.** McConnells Jest location map and regional geology overview.
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## **Appendices:**

- 1.** Map sheet 106D03.
- 2.** Minfile 106D055 & 106D018.
- 3.** Summary Geological report (abridged).
- 4.** NI 43-101 report.
- 5.** Prospecting and sampling assay results.

## **References:**

- 1.** Jeff Bond. Yukon Geological Survey, 1999.
- 2.** Mayo Mining Recorder. 2010, 2011, 2012, 2014, 2015.

## Project Location

The property is located in the central Yukon Territory, approximately 65 km northeast of Mayo (NAD 83, Zone 8: 479500 m E, 710000 m N). It consists of 172 hard rock (quartz) claims and covers an area of approximately 3,370 hectares. Claims are visible on Yukon Map Sheet 106D03 (**Appendix 1**).

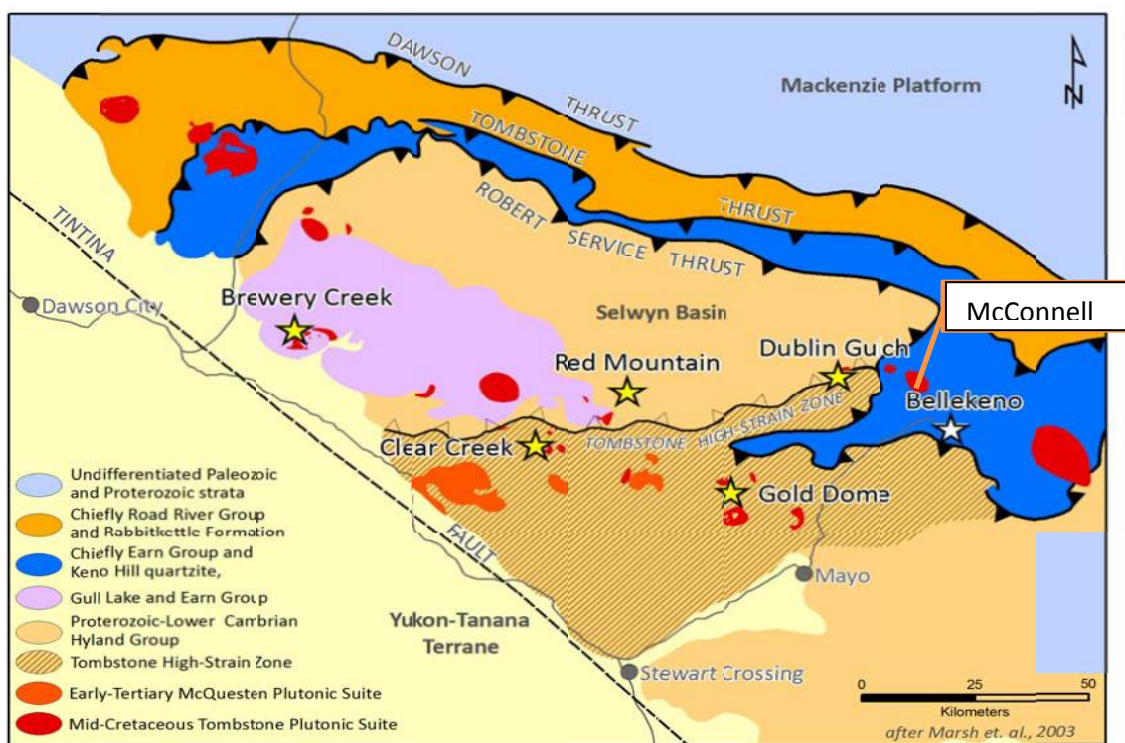
## Property Access

Access to the property from Mayo is via a 25 minute helicopter trip. The Hansen – McQuesten Lake road lies east of the property providing foot and skidoo access. Also river access has been employed via the McQuesten River from McQuesten Lake, used during initial staking and sampling. During the 2016 season the YTG upgraded the road to the eastern edge of the property and the single bridge on the aforementioned road was replaced with a brand new bridge that has a 20 metric tonne capacity. A helipad and camp/staging area was cut at the access road on the eastern edge of the claims.

## Geology, Deposit Type, Target Areas and Work History.

The property is located in the Selwyn Basin. The Selwyn Basin is bounded on the south by the Tintina Fault (and the Yukon – Tanana Terrane) and bounded on the north by the Dawson Thrust Fault (and the North American Shelf; **Figure 1**).

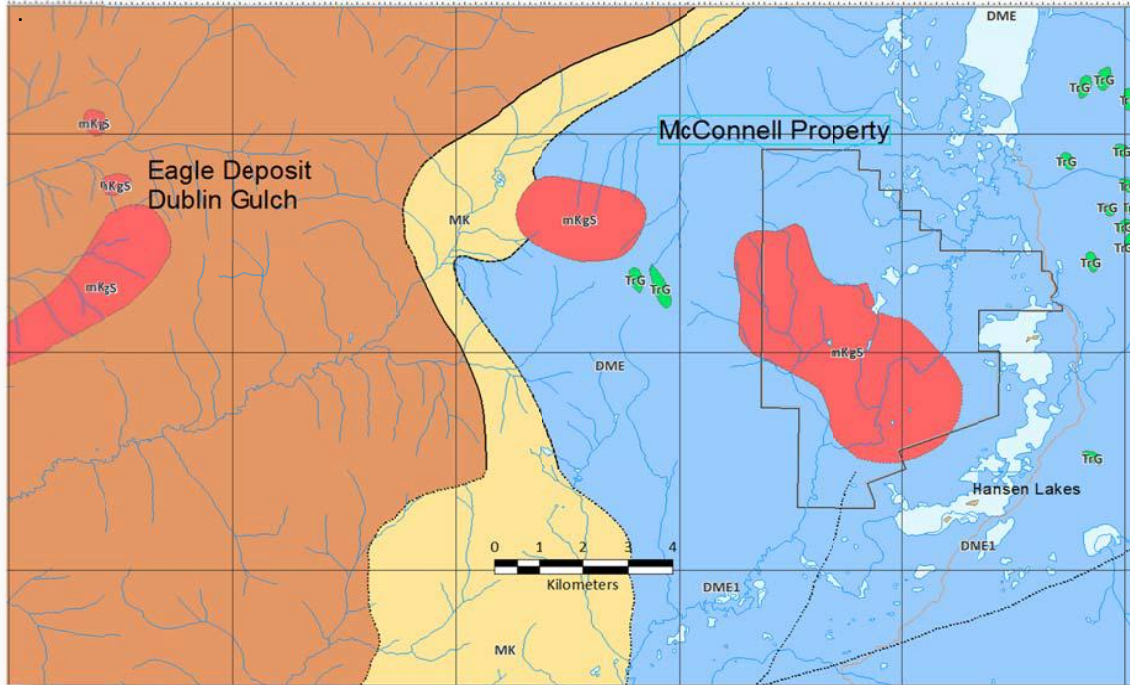
**Figure 1.** Location map and geology overview of the McConnells Jest property.



The property is underlain by Palaeozoic clastic rocks comprised of Upper Devonian and Mississippian Earn Group submarine fan and channel deposits with siliceous shale and chert (**Figure 2**). The Earn Group submarine fan and channel deposits include laminated shale with interbeds of arenites and

wackes, thick members of chert pebble conglomerate, siliceous siltstone, barite and rare limestone units. A ~ 7 km x 2.5 km Mid-Cretaceous Tombstone Suite granodiorite intrusion occupies most of the property. The applicant is targeting intrusion-related gold, akin to the nearby Eagle Deposit on the adjoining Dublin Gulch property, with a current indicated gold resource of 4.8 M oz and inferred resource of 1.5 M oz.

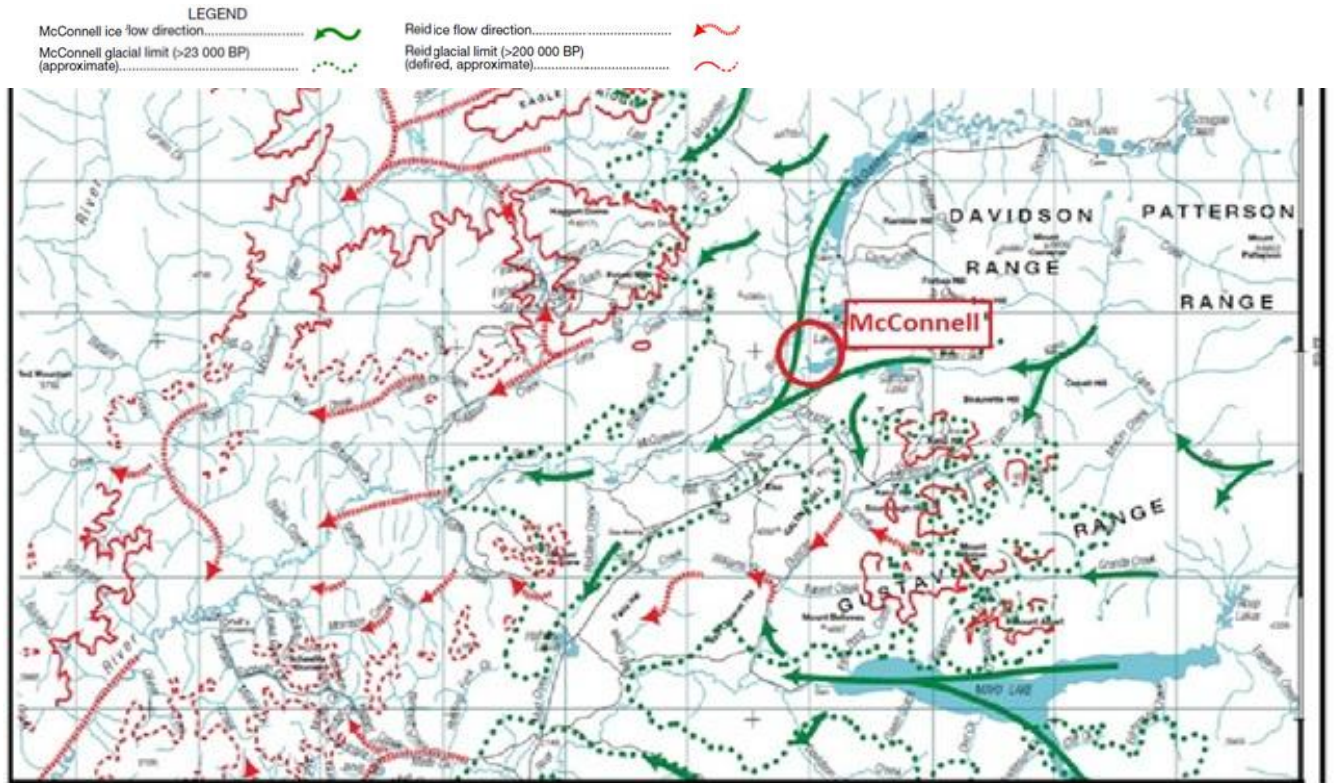
**Figure 2.** Claim outline and regional geology for the McConnell Property in Yukon, Canada. Red units are mid- Cretaceous plutonics from the Tombstone Suite and the light blue unit is Upper Devonian and Mississippian Earn Group clastic sediments



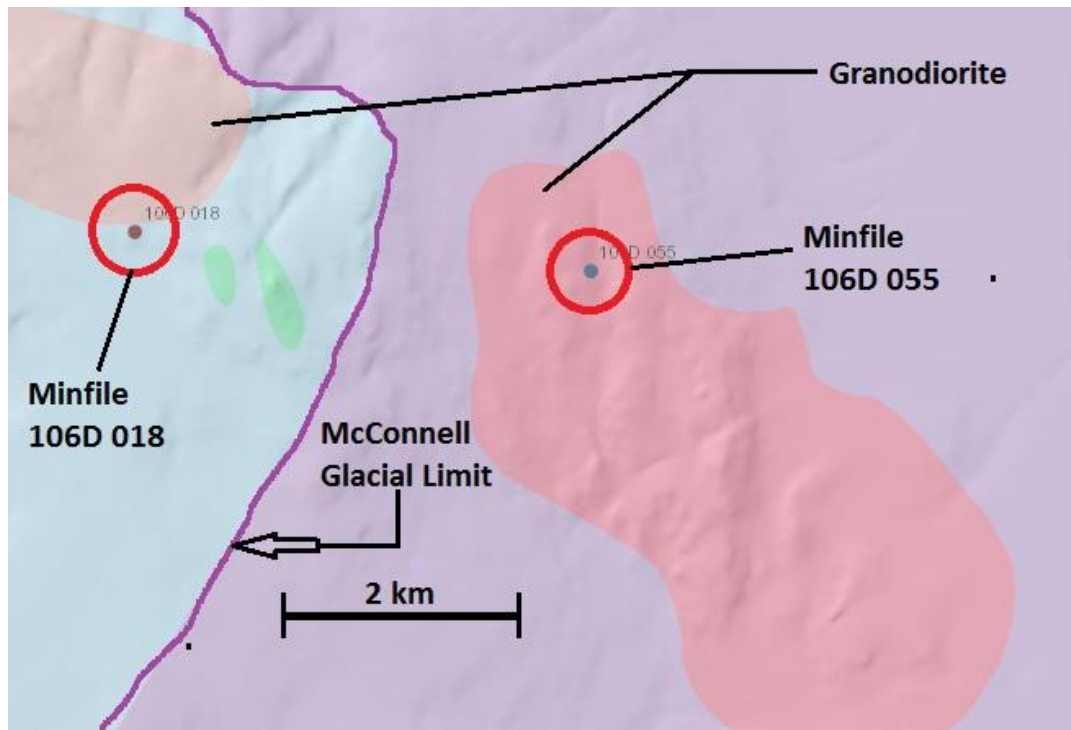
Exploration work performed on the property is still quite limited. First explored in 1965 by United Keno Hill Mines Limited following up on an anomalous stream sediment value released by the GSC (Minfile 106D 055 (**Appendice 2**)). The soil sampling returned “background values”. However, unknown at that time, the property underwent regional glaciation (McConnell ~23,000 years BP) (**Figure 3**).

Also see nearby Minfile 106D 018 (**also Appendice 2**), just east of 106D 055 at the periphery of a small granodiorite intrusion, known as “Nugget” at the eastern edge of the Dublin Gulch property and just west of the McConnells Jest intrusion, that was **not** overlain by McConnell till (**Figure 4**). Results from sampling were likened to those at the Fort Knox deposit. It should be noted that even with McConnell basal till and loess, results from the McConnells Jest property rival or eclipse those described in Minfile 106D 018.

**Figure 3.** Glacial limits and ice flow directions in the Mayo area with location of the McConnell property. (From Bond, 1999).



**Figure 4.** Minfile locations showing granodiorite intrusions and glacial limits.



Based on information from Jeff Bond, it is postulated that the ground is covered by basal till, possibly with a thin loess layer. Soil samples collected in loess would likely give muted results which may account for poor historical results. The soil samples collected in 2011 by Golden Predator and the follow up sampling in 2012 seem to prove this theory. Multiple elevated Au trends are visible in the soil results. It should be noted that. Although very “muted” soil sampling does seem to be effective for locating coincident mineralization.

The property was staked and sampled in 2010 by Bill Koe’-Carson (YMIP 10-001). Results proved interesting enough to secure an option agreement from Golden Predator Corporation (now Americas Bullion Royalty Corp). ***The following is an excerpt from the 2010 assessment report; (Reference: Mayo Mining Recorder)***

## ***7.0 CONCLUSIONS***

*Both soil and silt values show anomalous arsenic. Golden Predator plans to follow up on the arsenic anomalies, as arsenic tends to show a positive correlation to gold. Prospecting has also identified multiple sheeted vein and stockwork vein sub-crop and outcrops in multiple locations throughout the property which all need to be explored and tested to their full extent.*

*The McConnell property has some preliminary similarities to the adjoining Dublin Gulch property. Both properties contain granodiorite intrusions of the same age/suite, have undergone the same tectonic events and, share similar styles of hydrothermal activity.*

***End of excerpt.***

GPD then performed a modest soil program in 2011 that confirmed 2010 results, expanding the soil grid in 2012. Full extent of the soil grid showing results is shown in **Figure 5**.

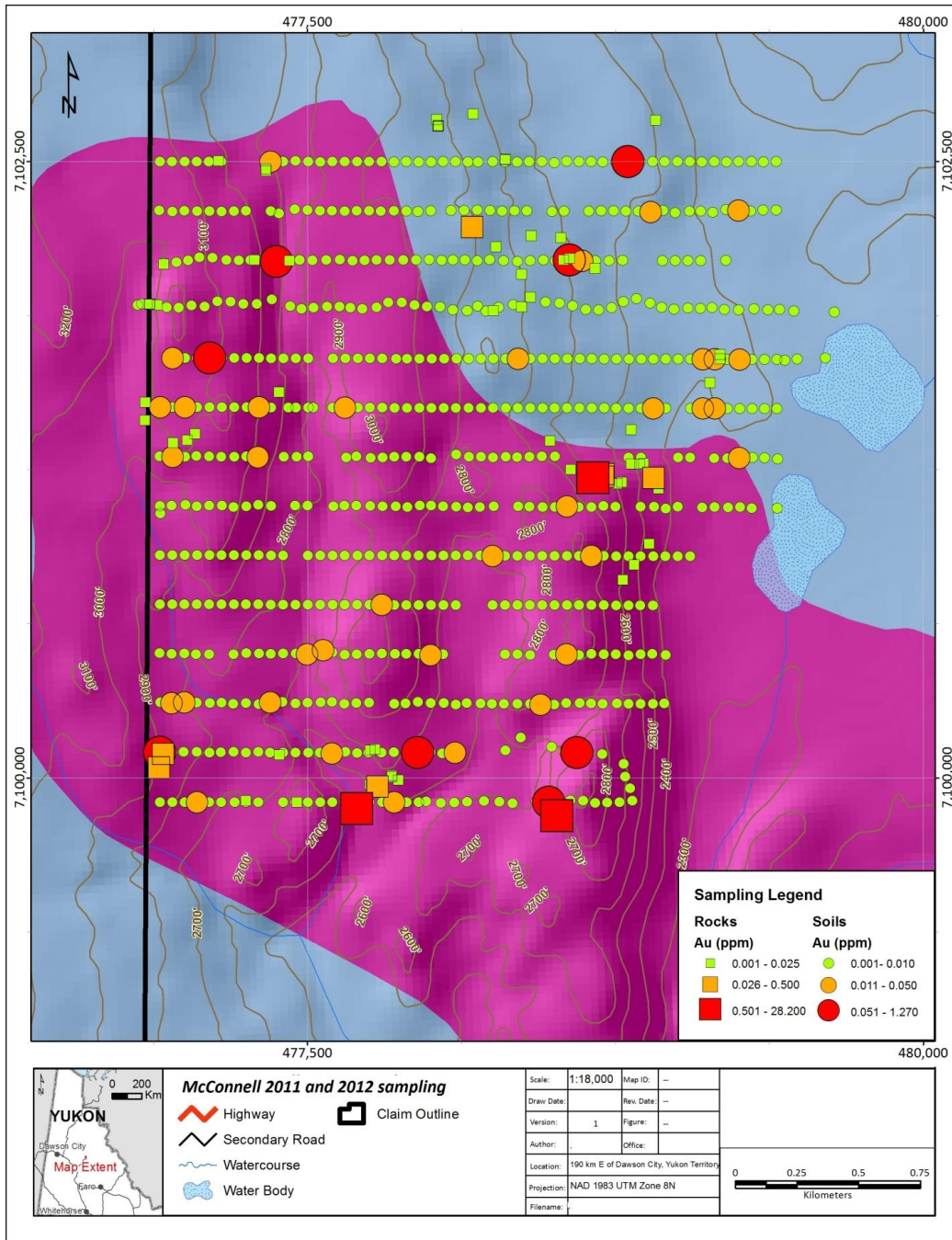
***The following are excerpts from the 2011 assessment report; (Reference - Mayo Mining Recorder)***

### ***6.1 Results***

*Results outline several multi-element geochemical anomalies. The geochemical plot for gold in soils identify several sporadic highs (up to 208 ppb) and a strong cluster of elevated values (10 to 17 ppb) in the northeast quadrant of the grid. The Au anomaly is about 400 m in length, across the two upper most soils lines and lies within 500 m of 2010 anomalous stream sediment sample locations (i.e., stream sample MJSED-004 which assayed 11.7 ppm Au and MJSED-006 with 0.558 ppm Au). Coinciding with the elevated gold values in the northwest quadrant are arsenic and copper in soil anomalies.*

*The southwest quadrant of the grid has a strong cluster of arsenic anomalies including three of the top five arsenic assays (up to 459 ppm As), the highest gold (208 ppb), silver (1.4 ppm) and bismuth assays (76.7 ppm). Elevated and generally coinciding lead and zinc anomalies generally occur in a north-south swath in the centre of the soil grid and tend to occur at local topographic highs. Modest tungsten (W) anomalies occur in the NW corner of the soil grid are associated with some moderately elevated gold values. ***End of excerpt.****

**Figure 5.** Soil grid from 2011 and 2012 sampling.



Although not officially part of the 2012 program, 74 rock samples were collected near 2011 anomalous soil results. The best assayed at > 25.0 ppm Au & > 10,000 ppm As. 2012 sample highlights are shown in **Figure 6**.



**The following are excerpts from the 2012 assessment report; (Reference - Mayo Mining Recorder)**

### **5.1 Results**

2012 work resulted in a number of interesting anomalous targets which warrant follow up work. Most notably is sample AA064560, a bedrock sample from a quartz-arsenopyrite breccia/vein which assayed over 25 g/t Au. With an orientation of 112 degrees azimuth, and a 38 degree dip, the sample shows a similarity to Dublin Gulch style structural extensional veining. In addition, a number of samples assaying over .3 g/t Au were discovered, and a soil sample which assayed 1.47 g/t Au at the north of the property were also discovered

### **6.1 Conclusions**

The project shows more than just preliminary indications of an intrusion related gold system. The mid- Cretaceous Tombstone granitic stock which underlies the majority of the claim block has shown gold mineralization (AA063190, AA064560). A single hand sample of quartz-arsenopyrite breccia/vein assayed at 25 g/t Au (AA064560). This vein has an orientation of 112 degrees azimuth, and a 38 degree dip. This orientation is somewhat similar to that of the Dublin Gulch area, and there may prove to be a similar intrusion related gold system within the Tombstone suite pluton which underlies the property. Sampling from the property is proof that a mineralizing system was active on the property; the highest rock sample values, AA064560 (> 25 g/t Au, figure 8), and AA063190 (0.74 g/t Au) come from solid bedrock source granitoid. Rock sampling was also not the focus of study during this (2012) exploration program, thus a more robust program will likely provide more insight and better targeting. **End of excerpts.**

**Figure 6.** Highlights of 2012 sampling.

Sample ID	Sample type	Au ppm	As ppm	Sb ppm
AA063187	Rock	0.22	>10000	5.6
AA063190	Rock	0.74	1810	9.04
AA063615	Rock	0.2	1120	4.07
AA064259	Rock	0.66	191	0.68
AA064560	Rock	>25	>10000	165
AA064600	Rock	0.23	513	36.5
AA064010	Soil	1.27	625	3.51
AA065050	Soil	0.23	496	27.1

In 2013 no work was performed and, due to market conditions, Golden Predator attempted a downward re-negotiation of the option agreement. No suitable middle ground was able to be reached between the optioner and the optionee and, though remaining on good terms, the option agreement was dissolved in January 2014.

In summer of 2014 a rock sampling program was initiated that received funding via YMEP grant # 14-063. Results from this work were very encouraging revealing another massive scorodite vein (sample #14474 ) in the Bullion zone akin to that found by Golden Predator in 2012 with similar high Au values realized upon assay. Based on a 0.66 ppm Au rock result, also taken by Golden Predator during 2012 in what is now known as the “Pink Mountain” zone, prospecting and bedrock source sampling nearby revealed a trend of Au mineralization in the Pink Mountain zone spanning 500 m x 375 m that remained open on three sides. Highlights of 2014 sampling are seen in **Figure 7**.

**Figure 7.** Highlights of 2014 sampling.

2014 Rock Samples Above 0.8 ppm					
Sample Number	Au ppm	As ppm	Sample Number	Au ppm	As ppm
14451	0.811	1768	14528	1.663	1499
14474	35.56	>10000	14530	7.17	>10000
14479	1.157	7454	14531	2.612	3686
14511	1.49	746	14532	2.722	5807
14515	3.497	9914	14533	5.177	3731
14521	0.841	1499	14535	2.239	>10000
14522	3.582	564	14544	15.426	>10000
14527	0.942	1437	14551	5.318	1032

*The following are excerpts from the 2014 assessment report; (Reference - Mayo Mining Recorder)*

### **5.3 Results**

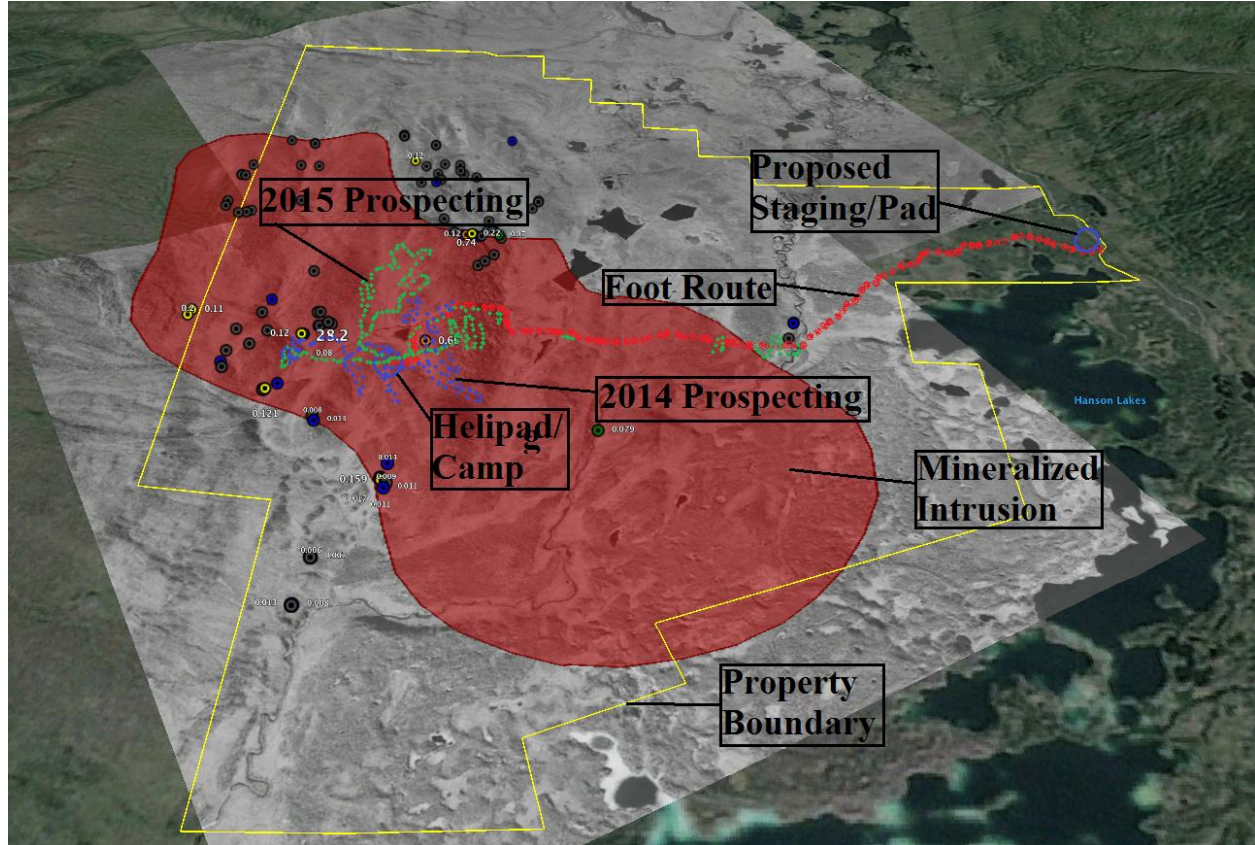
A great deal of focus was put on the area now called “Pink Mountain”. A single rock sample from 2012 in the area (AA064259) yielded 0.66 g/t Au and soil sampling from the same year showed little results. The work in 2014, however, shows excellent potential in the area. No fewer than 15 rock samples from the Pink Mountain area yielded gold values of 0.249 g/t Au over an area of approximately 500m x 375m. 775 m due west of Pink Mountain, an area described as “Bullion Zone” yielded 3 samples over 0.249 g/t Au. Two of these samples lie 50m southwest of the 2012 sample which assayed over 25 g/t Au.

## 6.1 Conclusions

This property shows excellent indication of being an intrusion related gold system, and may very well be an extension of, a “down strike deposit”, or a structural offset of the Eagle gold (Dublin Gulch) property. Though a previous rock sample at the “Pink Mountain” zone had contained some gold, the work in 2014 by Bill Koe-Carson has shown that this zone has continuous gold bearing potential over a 500mx375m area. The sampling undertaken over the past four years has proven that the mid-Cretaceous Tombstone pluton which underlies the property has had gold bearing mineralization pass through it. Multiple high gold values, at times upwards of 30 g/t Au, can be found over a number of spots on the McConnell property. Mineralization is present in sheeted quartz veins/microvein swarms, thick extensional veins, as well as host plutonic rock proximal to this hydrothermal vein activity. Stream sediment samples, float samples and bedrock have all yielded decent to high gold numbers. **End of excerpts.**

In 2015 a “Summary Geological Report” was created from the existing data, built on the same framework as a NI 43-101 report, by P.Geo Mr Andrew Randell via the Strata Geo-Data HIVE concept. (**Appendice 3**), A modest prospecting program was also undertaken in 2015. Meticulous prospecting for bedrock outcrop (**Figure 8**) produced further interesting Au results from bedrock sources (**Figure 9**) that increased the mineralized footprint of the Pink Mountain zone by a further 100 m north (**Figure 10**) and has helped begin confirmation of the preliminary structural interpretation extrapolated prior to 2015 field work in the “Summary Geological Report”. 2015 sampling also proved continuity of Au mineralized veining from the west side of Pink Mountain through to the east side (**Figure 11**).

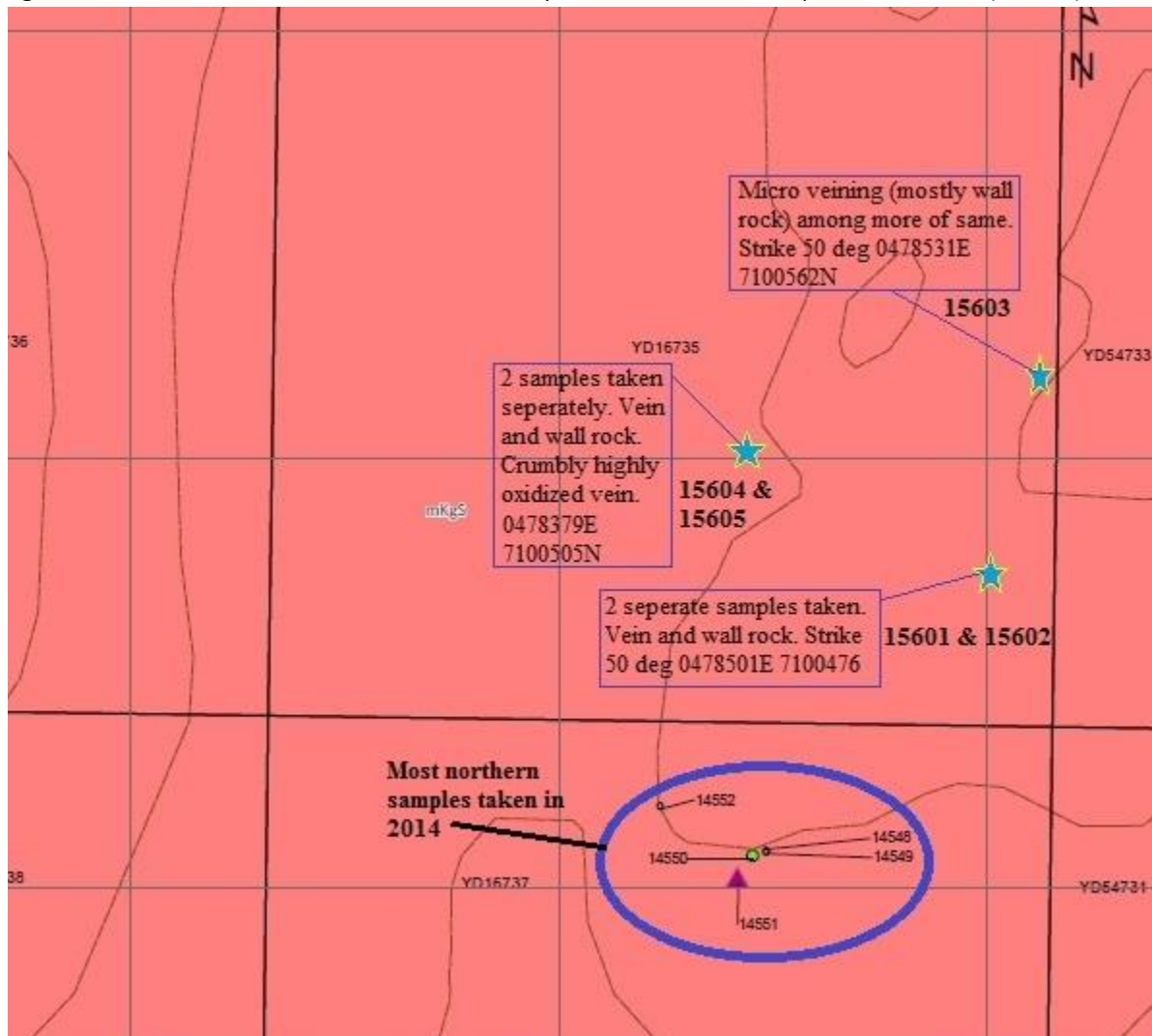
**Figure 8.** Tracks of 2014 prospecting (blue) and 2015 prospecting (green).



**Figure 9.** 2015 sample results in ppm for Au and As from samples extending Pink Mountain zone.

Sample Number	Method ppm	Method ppm	Method ppm	Rock Type
	FA430 (Au)	AQ200 (As)	AQ200 (Sb)	
15601	0.615	3350.1	1.3	Vein
15602	0.026	883.6	0.8	Wall Rock
15603	0.039	25.1	0.5	Composite
15604	3.046	>10000.0	13.4	Vein
15605	0.094	1085.2	2.3	Wall Rock
15606	4.825	>10000.0	125	Vein
15607	0.017	3254.9	1.3	Wall Rock

**Figure 10.** Extension of mineralized zone in 2015 beyond most northern sample taken in 2014 (~ 100m).



**Figure 11.** Scorodite veining assayed at 4.825 ppm Au. Discovered in 2015 on the EAST face of Pink Mountain directly along strike of strong Au mineralization footprint discovered in 2014 along the WEST face.



*The following is an excerpt from the 2015 assessment report.*

### **15.5 Conclusions**

*From this gathering and consolidation of data, there are several similarities structurally, geologically and geochemically to Dublin Gulch.*

*It has to be remembered that the Dublin Gulch discovery was overlooked for sometime due to the lack of a surficial gold anomaly. The lack of a strong gold-in-soil anomaly at McConnells Jest does therefore not preclude the existence of an ore body.*

*The proximity to Keno Hill may also mean that we see some silver - lead - zinc mineralisation on the property too. These can also be cooler, more distal systems to the pluton, but we cannot rule out some overprinting from the Keno-Elsa corridor.*

*When a map of McConnells Jest and Dublin Gulch are placed side by side (Fig. 15.7), there is a clear similarity in structural regime, although the McConnells Jest pluton has around double the surface area.*

*Ag-Pb-Zn veins also occur at Dublin Gulch, in particular their Olive and Shamrock Zones, located about 1km east from the main deposit. On the surface, these are expressed as outcroppings of scorodite, a mineral that occurs from the weathering of arsenic-rich minerals. Historically, these veins were chased underground in artisanal mining operations and were quite productive, if short lived.*

*McConnells Jest has both the sheeted vein systems (Pink Mountain) and scorodite outcrops (Bullion Zone). The presence of till cover has somewhat impeded more extensive mapping and collection methods, which is something that should be addressed in the future. (Reference: Mayo Mining Recorder)*

*End of excerpt.*

## **2016 Work Performed**

Work in 2016 consisted of access pad creation, further prospecting, limited channel sampling and an in the field visit from both Derek Torgerson of the YGS and P.Geo Andy Randell plus his assistants to perform work conducive to the creation of a fully compliant NI 43-101 report. Baseline water sampling was also performed along with a preliminary vegetation survey which will also be reflected in the NI 43-101 report. The completed NI 43-101 report can be viewed in **Appendix 4**.

There were a total of nine (9) helipads cut or upgraded on the property in 2016, including the road accessible pad on the eastern edge of the property. A camp/staging area was also cut at this location. New zones identified were accessed on foot and a pad cleared to aid future access.

The co-ordinates of heli pads, and names of the zones relating to those pads, are as follows:

**Road and Staging Pad:** 483304E 7101459N, **Central Camp Pad:** 478275E 7099746N  
**River Pad:** 478166E 7097741N, **Big Quartz Pad:** 476829E 7100101N,  
**Tea Zone Pad:** 477491E 7101350N, **Bullion Zone Pad:** 477684E 7099863N,  
**Pink Mountain Zone Pad:** 478638E 7099983N, **Seven Four Zone Pad:** 479025E 7101152N,  
**Two Four Zone Pad:** 478408E 7098731N

Channel sampling was undertaken in both the Bullion Zone and the Pink Mountain Zone. A total of 30 meters of channel was cut on 6 different lines, creating 30 samples for assay. Results were not as good as hoped for but some indications of positive mineralization were realized. The best results were 1 meter on channel 1 (Bullion Zone **Figure 12**) which assayed at 5.266 ppm Au, 1 meter on channel 5 (Pink Mountain Zone **Figure 13**) which assayed at 0.698 ppm Au and 1 meter on channel 6 (Pink Mountain Zone **Figure 14**) which assayed at 0.655 ppm Au. Channel sampling was limited by accessibility and outcrop exposure. Trenching may be a better method of exposing desirable mineralization and improved results. Sample results are seen in **Appendix 5**. Channel sample results are distinguished by a "CH" prefix to the sample number.

**Figure 12. Channel 1, sample # CH16107, 1 meter assay 5.266 ppm Au.**



**Figure 13, Channel 5, sample # CH16124, 1 meter assay 0.698 ppm Au.**



**Figure 14, channel 6, sample # CH16126, 1 meter assay 0.655 ppm Au.**



Prospecting and sampling was undertaken in the Tea Zone, Big Quartz Zone and the Two Four Zone. Sampling undertaken in the Tea Zone and Big Quartz Zone were on the very eastern periphery of the identified zones and results are likely to improve greatly when explored and sampled deeper within the zones to the west. Both those zones are good potential for Tungsten, based on soils geochem, but Big Quartz Zone has a higher potential for Au mineralization, based on rock sampling, and Tea Zone a higher potential for Tungsten. General prospecting revealed the most significant results of the season, in the newly discovered “Two Four Zone” where high value scorodite veins were discovered in a densely populated fashion, with vein sets occurring approximately one meter apart **Figure 15 & Figure 16**). Results from the prospecting and sampling are shown in **Appendix 5**. The co-ordinates and Au values for eight of the nine samples taken in Two Four Zone are shown in **Figure 17**.



**Figure 15, Two Four Zone, sample # 16713, assay >10,000 ppm Au.**



**Figure 16. Two Four Zone, sample # 16714, assay 9.85 ppm Au.**



**Figure 17.**

Sample Results in ppm & Sample Locations from "Two Four" Zone 2016						
Sample #	Easting	Northing	Au	Sb	As	Bi
16712	478393	7098734	0.339	0.8	786.1	1.5
16713	478395	7098724	>10.000	31.9	>10000.0	270.5
16714	478395	7098726	9.853	105.8	>10000.0	756.7
16715	478391	7098729	0.275	1.3	649.7	21.7
16716	478392	7098730	5.869	89	>10000.0	16.3
16717	478396	7098735	>10.000	20.3	222.8	695.9
16718	478393	7098712	8.041	115.6	>10000.0	66.3
16719	478403	7098696	4.228	108.5	>10000.0	1199.5

Culmination of the work performed in 2016 garnered an option agreement for the property from **Zonte Metals Inc.** Further work is planned for 2017 that will be too robust to be considered for further YMEP funding. This should be considered a great success for the YMEP program as the property will be advanced greatly, bringing desirable expenditures within the Yukon along with a significant new player that has not explored in the Yukon previously.

### **Conclusions and Recommendations.**

Enough targets have now been identified on the McConnells Jest property to make the ground a highly likely candidate to identify and advance an actual resource. The next logical step would be RAB or core drilling. There is also still a great deal of unexplored or under explored ground on the property. During the 2016 season other areas of interest that are likely to be extensions of known mineralization were also located. The most significant of these possibly being respectively related to Bullion Zone and the two Four Zone. The soil grid that has currently been advanced needs to be expanded to the south and even the identified zones of interest need a great deal of further exploration. Much also remains unexplored. Geological mapping needs to be undertaken and the preliminary geological structure can be refined greatly. Further prospecting will be a mainstay on the property for many years to come.

Total expenditures for the work performed exceeded \$60,000 CAD (Sixty Thousand dollars CAD). Funds were allocated for wages, helicopter time, field and camp supplies, assay costs, contractor costs and expenses, transportation, equipment rentals and reporting.