

Yukon Mining Exploration Program 2015  
Report on the

## Australia Creek Placer Project

### Target Evaluation 15-065

AUS 1-53: P515612-64

AUS Pup 1: P516982

Aus Pup 3: P516984

Aus LL1: P516737

5 Mile Prospecting Lease: ID01306

NTS map Sheet 115010

Dawson Mining District

63°33'N 138°43'W

March 31, 2016

Produced for Fry Exploration and Mining

By

Bill Harris

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# 1 Summary

The road accessible Australia Creek Placer Project (the “Project”) is located approximately 70 km southeast of Dawson City, Yukon (Figure 1) in the Dawson Mining District and centred at 63° 33’ N latitude and 138° 43’ W longitude, on NTS map sheet 115010.. The Project consists of 56 contiguous placer claims (Aus 1-53, Aus Pup1, Aus Pup3 and Aus LL1), and a 5 mile bench placer lease along Australia Creek. The placer claims and lease are situated along Australia Creek originating 1 km upstream from the confluence of Australia Creek and Indian River. All claims and the lease are under lease to Fry Exploration and Mining, who have a formal agreement drawn up with the owner Bill Harris. The Yukon Government has settled land claims with First Nations in the area, Tr’ondek Hweich’in.

In the Australia Creek area, gold has been mined from Sulphur and Dominion Creeks since the early 1900’s. More recently, the Indian River has been mined starting in the early 1980’s, and according to Lowery (2004) produced 38% of the total placer gold in the Yukon (647,925 oz between 1978 and 2001). The Indian River itself ranked second and produced 223,732 oz between 1978 and 2001. Large left limit tributaries of the Indian River such as Ruby, Montana and its tributaries, and Wounded Moose are just coming into their own as producing placer creeks. These left limit tributaries are mining both the active channel of Indian River and its left limit benches. Active mining at the mouth of Australia Creek is ongoing by 2 operators.

The exploration programs done in the past on Australia Creek have been, because of the size of the target, too small, too sporadic, and too spread out to gain enough of a body of knowledge to get a good understanding of the potential of this creek as a large placer producer. A program of auger drilling, trenching and test pitting was proposed for the creek in 2015, in conjunction with a drone, ground penetrating radar and DC resistivity Geophysics survey. Due to various constraints, this program was modified.

As a result, the work in 2015/2016 included a 3,350 cu yd trenching program, a drone fly-over producing a short video, and a shafting program (17’ depth). The largest trench in the 2015 program (2015-4) was excavated in the area with the highest grades of historical holes (drilled by Hughes Lang in 1988). Although this trench did not reach bedrock, the presence of fairly significant number of fine colours high up in the gravel column suggest the potential for a significant concentration of placer gold on bedrock. In the Discovery Outcrop area, bulk sampling results of 1.2 grams of gold per cubic yard were returned. Trench 2015-01 in this area, also did not reach bedrock, yet the significant numbers of colours panned warranted excavation of a shaft in the area, with the aim to reach bedrock. Garnets recovered in shaft (a key indicator and companion element in Indian River placers) are of a significant size. Results from the trenching and shafting program and especially the grade of the gold in the bulk sample not only indicate the potential for an economic placer deposit, yet have also focused the target areas to work on.

Further work is recommended to focus on two key areas:

- Target 1: Auger drilling within the bench area beside Trench 2015-4 and deepening of the trench to reach bedrock.
- Target 2: Auger drilling, trenching and completing shafts to bedrock in the Discovery Outcrop area, along the bench and tributary, and out into the main valley of Australia Creek. Trench 2015-1 would also be deepened to reach bedrock.

Prospecting will continue along the left limit of the creek valley, as well as along the bench and the tributaries of Australia Creek for more areas of high potential to contain economic placer deposits.

## 2 Introduction

This report describes 3 field exploration programs carried out on the Australia Creek property in 2015/2016. This report was prepared to satisfy requirements for the Yukon Mineral Exploration Program (YMEP) reporting. The work was carried out by Midnight Mining Services Ltd. and funded by Fry Exploration and Bill Harris with assistance from YMEP.

## 3 Project Description and Location

The Australia Creek Placer Project (the "Project") is located approximately 70 km southeast of Dawson City, Yukon (Figure 1). The Project consists of 56 contiguous placer claims (Aus 1-53, Aus Pup1, Aus Pup3 and Aus LL1), and a 5 mile placer bench lease along Australia Creek. The placer claims and lease are situated along Australia Creek originating 1 km upstream from the confluence of Australia Creek and Indian River.

All claims (except Aus LL1) are owned by and registered to Bill Harris, while the placer lease and Aus LL1 is owned by Mike Linley held in trust for Bill Harris. All claims and the lease are under lease to Fry Exploration and Mining, who have a formal agreement drawn up with the owner Bill Harris. All claims are located in the Dawson Mining District and in good standing. The centre of the property is at 63° 33' N latitude and 138° 43' W longitude, on NTS map sheet 115010. Claim data is presented in table below.

The Yukon Government has settled land claims with First Nations in the area, Tr'ondek Hweich'in. Figure 1 shows the general location of the project as well as the location of settlement lands closest to the Gold Run property. A detailed claim map is shown in Figure 2. The 2015/2016 work program was conducted under a Yukon Government Class 1 Placer Mining Land Use permit and Schedule 3 Water Use licence. A Type B Water Licence and Class 4 Mining Land Use Permit have been applied for. The project has completed its assessment through YESAB and the Water Licence is in the public review stage (until April 19, 2016).

**Table 1 - Claim List**

Claims	Grant Number	No. of Claims	Registered owner	Recording Date	Expiry Date
Aus 1-20	P515612-31	20	Bill Harris	7/30/13	8/8/17
Aus 21-53	P515632-64	33	Bill Harris	7/30/13	8/8/16
Aus Pup 1	P516982	1	Bill Harris	8/14/15	8/24/16
Aus Pup 2	P516984	1	Bill Harris	8/14/15	8/24/16
Aus LL1	P516737	1	Mike Linley	7/10/15	7/13/16
5 Mile Prospecting Lease	ID01306		Mike Linley	7/10/15	7/13/16
<b>Total</b>		<b>56</b>			

## **4 Accessibility, Climate, Local Resources, Infrastructure and Physiography**

Access to the main area of work is by the all weather gravel road along Hunker and Dominion Creeks to Indian River, There is access to the claims and lease via the Australia Ditch road along the right limit of Australia Creek. Approximately 3.5 miles upstream along the Ditch road the trail crosses the Australia Creek Valley and connects to a system of cat trails and cat cut tier lines which proceed downstream along the left limit and upstream to the old Australia Creek Dam Site. This Dam site is the upstream end of the Australia Creek Ditch and is near the location of Fry's upstream exploration area, as well as one of the 2015 camps.

### ***4.1 Camp***

Two small temporary camps were constructed during the field programs. The first was approximately 4 miles up Australia Creek along the left limit. The camp was put in where the access trail continuation from the ditch road crosses Australia Creek itself in the area of TR2015-4.

The second temporary camp was near the upstream end of the Australia Creek ditch, near the old dam site on the left limit of Australia Creek. The existing trail that ends at the dam site runs along the left limit first tier line and was utilized to access the camp. The second camp is very near the 2016 shaft location and TR2015-1.

**Figure 1 Australia Creek Location**



**Legend**

- New Placer Claims (1M)
- Placer Claims (1M)
- Settlement Lands (Surveyed)
  - A: Surface and Subsurface Rights
  - B: Surface Rights
  - FS: Fee Simple
- Settlement Lands (Unsurveyed)
  - A
  - B
  - FS
- Interim Protected Lands (Unsu)

1: 500,000

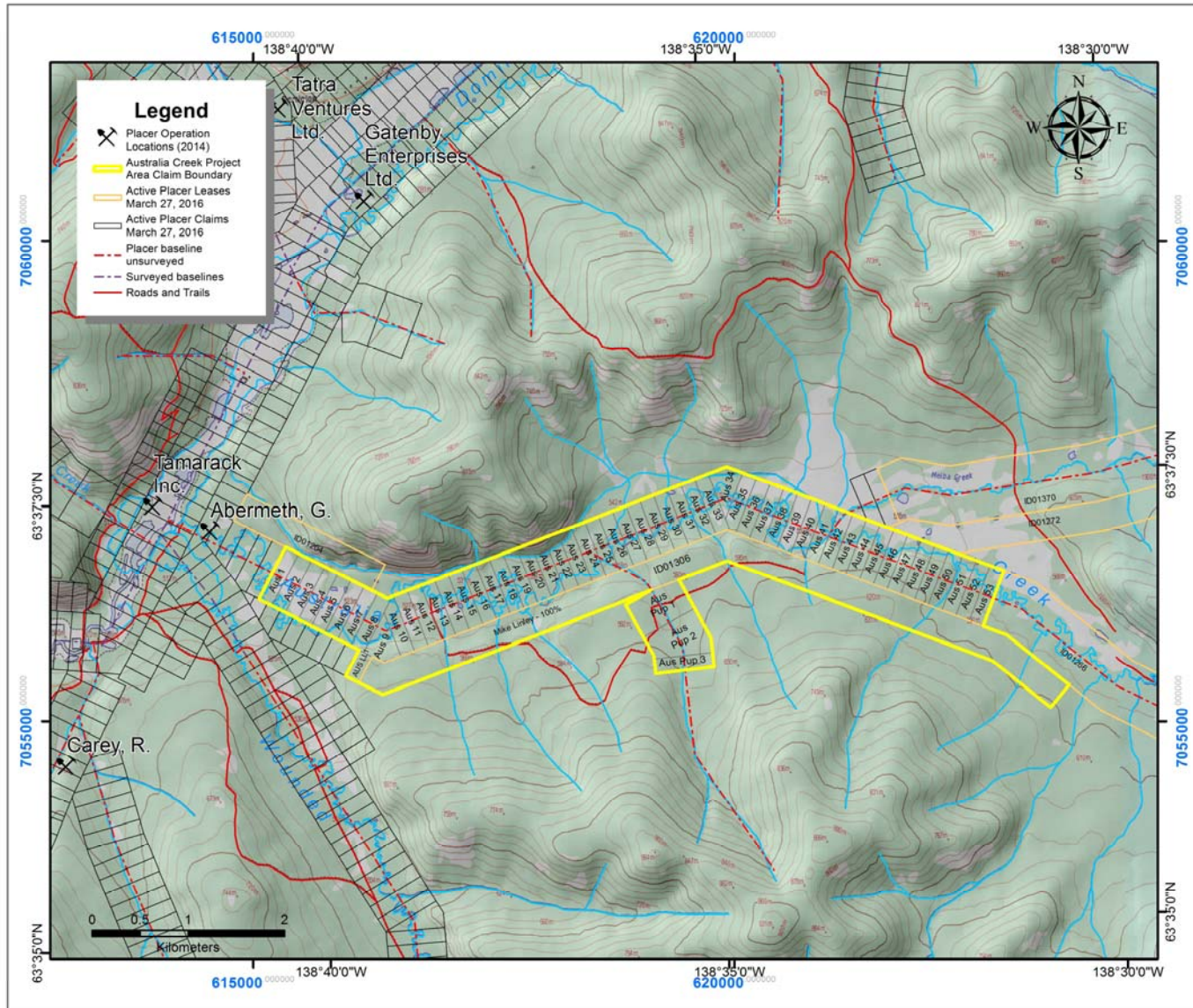


25.4 0 12.70 25.4 Kilometers

**Notes**



Figure 2: Claim Map



## **5 Regional Setting and Australia Creek Details**

Australia Creek is a very mature creek system, with a broad valley and a meandering creek. The valley is covered mostly with short grasses and bushes (tussocks and sedges); in the lower reaches of the creek, large coniferous trees are restricted to the present day creek banks, but they eventually cover the valley as the creek nears its headwaters. The valley generally has a steep slope on the southern side and a gradual slope, with paleobenchs, on the south side.

The Klondike region was not glaciated and, as a result, the deeply weathered, pre-glacial, gently rolling upland surface has been preserved. Depths to bedrock average 12 metres, and the bedrock is deeply weathered

### ***5.1 History***

The Klondike is well known for its placer gold history, and only the areas adjacent to Australia Creek will be discussed here. Following the initial discovery of gold on Bonanza Creek in 1896, gold was soon found in drainages to the southeast. The main producers were Sulphur, Gold run and Dominion Creeks. No work was done on Australia Creek at this time.

Following the early mining using hand methods, dredges were introduced into the region. Dredges were active in the three creeks mentioned above, and mined down Dominion Creek to the confluence with Australia Creek. The Yukon Consolidated Gold Corporation (YCGC), the main dredge operator, did limited churn drilling at the mouth of Australia Creek, but no further exploration. YCGC did construct a dam and ditch system on Australia and Wounded Moose Creeks to supply water for its operation on nearby creeks. Dredging continued until the 1960's.

In the late 1970's placer activity in the area increased, and continues to the present. Modern operations use heavy machinery to move large volumes of gravels through sluice boxes. Aside from the historically productive creeks, mining occurs on the Indian River, which is currently the most important gold producer in the Yukon.

Australia Creek has been explored intermittently since before the Gold Rush. Robert Henderson was the first one known to have prospected Australia Creek in 1894. During his work there he tripped, fell over and got a stick stuck through the calf of his leg. He wrote the creek off, saying values were too low to mine. In the early 1900s Yukon Consolidated Gold Company (YCGC) held the ground. They controlled Australia Creek and built dams on Melba Creek, Australia Creek and Wounded Moose Creek as well as a ditch to provide water and energy for the dredges on Lower Dominion and Sulphur Creeks. YCGC did drill the mouth of Australia creek (pers. Comm. Erich Raguth), but the records have not been obtainable to this point. YCGC held the ground until the early 1970's after which it came open and was staked by others over the years.

Modern exploration began in the 1980s when John Brown mined Dominion Creek near the mouth of Australia Creek. Later in the 1980s Yukon Engineering Services for RK Resources, Hughes Lang Corp and others. Aurora Geosciences or its predecessors Amerok Geosciences and Mike Power have performed Placer Magnetometer Surveys and Ground Penetrating Radar Surveys in the lower reaches of Australia

Creek in 1989 and 1998. Since that time placer operations have been in operation in lower Australia Creek near its confluence with Dominion Creek. Erickson operated for several years in the early 2000's and George Aberneth (Gyppo Mining) has been in operation for approximately 6 to 7 years (with an option to Colonial Gold). Fry Exploration and Mining leased the ground in this proposal and carried out auger drilling in 2013 and 2014.

## **5.2 Geology**

### **5.2.1.1 Regional Geology**

There are five major units in the Klondike area; the Nasina Series, the Klondike Series, the Moosehide Assemblage, early Tertiary volcanics/volcanoclastics, and the Tertiary intrusives (Figure 3). The basement unit is the Nasina Series, consisting of metamorphosed schists and quartzites. It is overlain by the Klondike Series, which is thought to be genetically related to the placer gold of the Klondike.

The Klondike Series is a dominantly quartzofeldspathic schists of Early Permian (280 m.y.) age. This suite underlies all of the rich placer gold deposits in the area, and has been found to contain economic values of hard rock gold. To the south and west, the Klondike Series is in contact with a Late Devonian to Mississippian orthogneiss.

Structurally overlying the Klondike and Nasina Series are greenstone and altered ultramafics of the Moosehide Assemblage. In the east and south, early Tertiary andesitic volcanics and clastic sediments occur.

All of the above units are intruded by diabase to rhyolite Tertiary dykes and sills.

### **5.2.1.2 Property Geology**

Surficial and drill geology confirmed the published data on the area i.e. a schist with minor graphitic and dyke units underlies most of the property, with an orthogneiss at the western edge.

Only one outcrop was observed along the left limit bench edge and that was a schist approximately five miles upstream along Australia Creek right near the old Australia Dam Site.

### **5.2.1.3 Surficial Geology**

Australia Creek is a mature tributary to the Indian River, situated in a broad valley within the unglaciated Klondike Plateau. Recent stream action has restored and redeposited Tertiary bench gravels which lie along both the sides of the main valley (Lebarge, 2007). Figure 4 shows the surficial geology in the vicinity of the claims.

Figure 3 Bedrock Geology

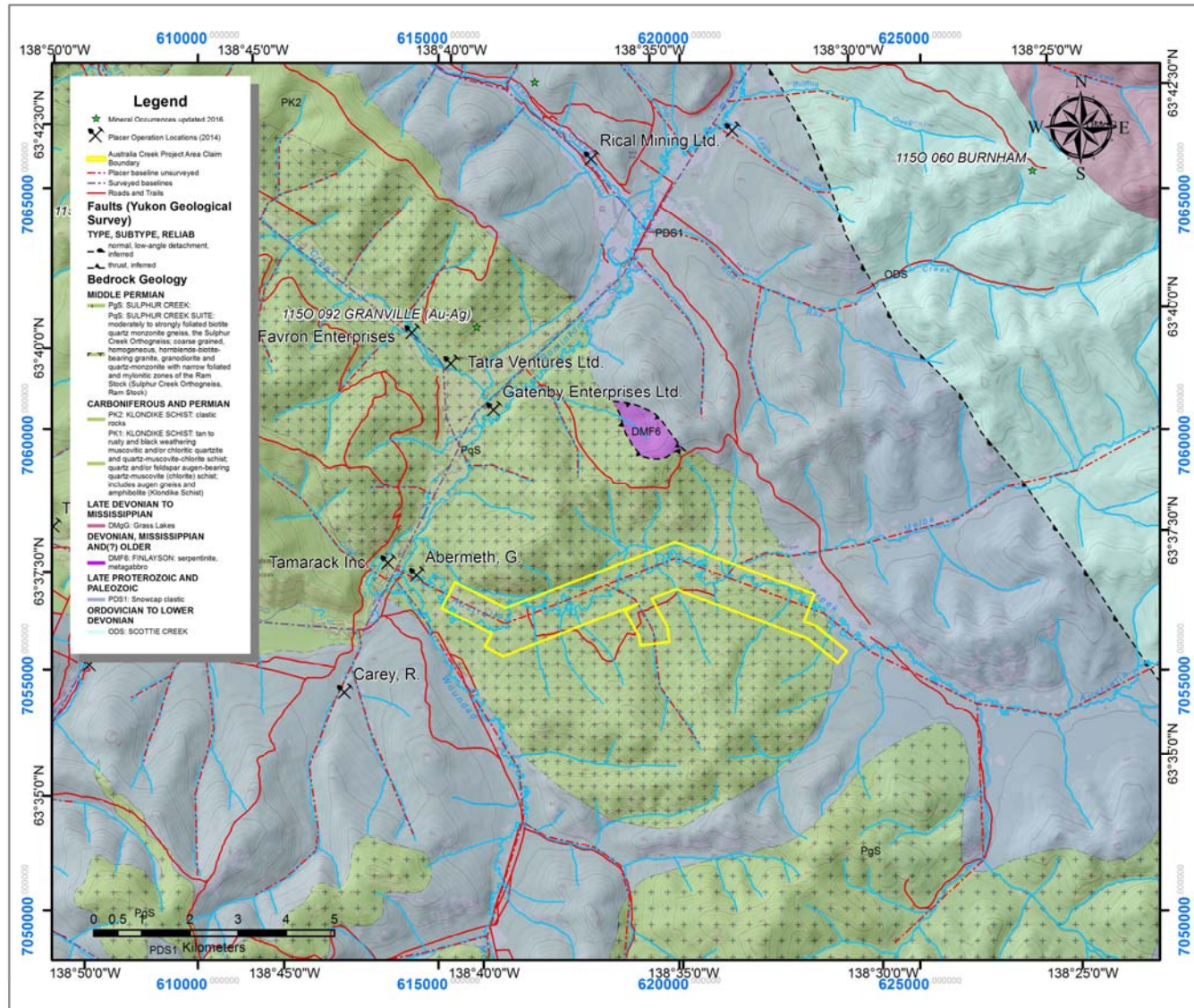
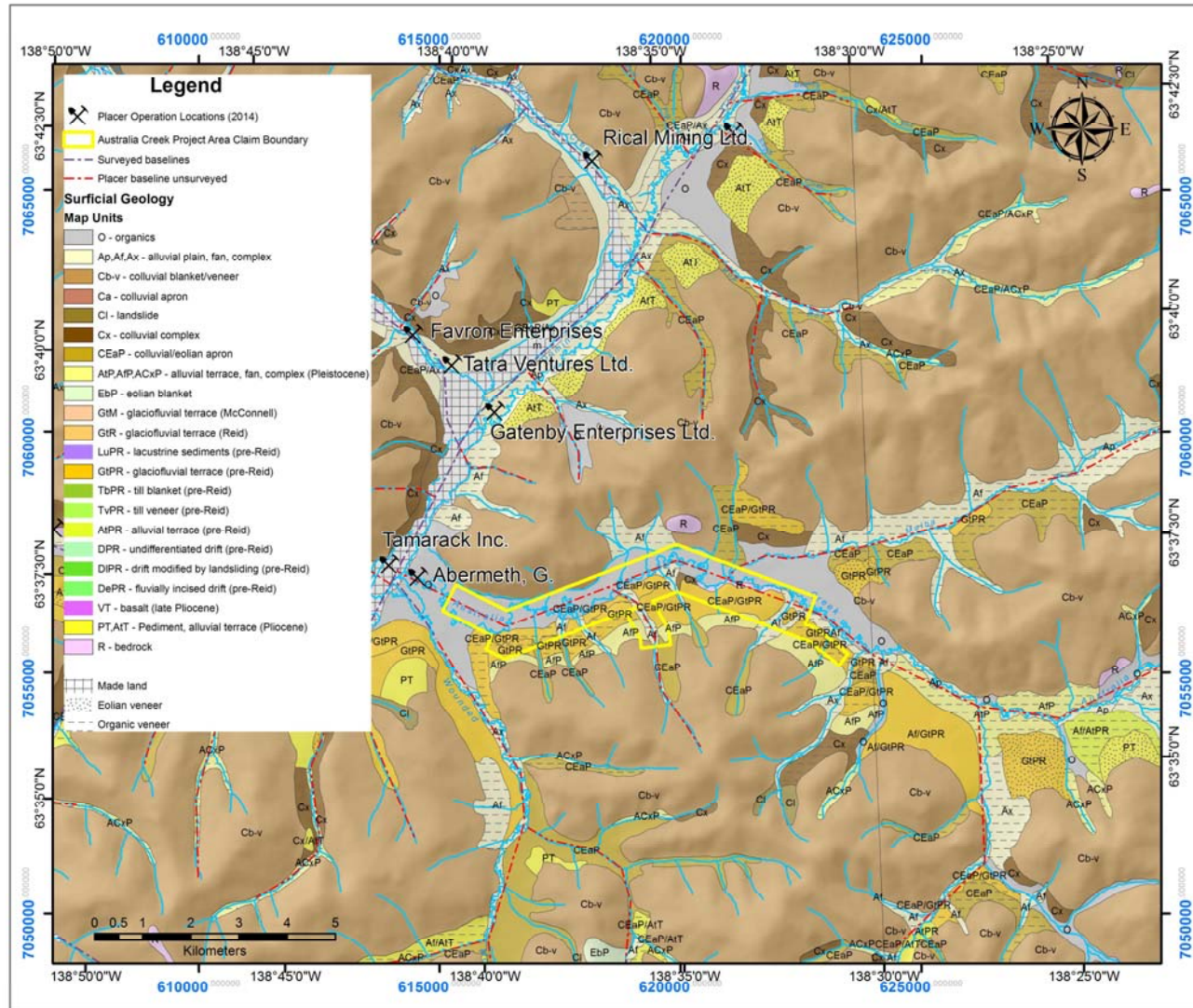


Figure 4 Surficial Geology



## 5.3 Drilling

### 5.3.1.1 Rotary Drilling

A total of 66 reverse circulation rotary drill holes were drilled in 1988, and a further 22 were drilled in 1989. A Schramm T560H air rotary rig mounted on a TF 360 Nodwell carrier was used to drill 13.0 cm diameter holes. Drilling was carried out by Midnight Sun Drilling of Whitehorse, Yukon.

All holes were drilled vertically at sites marked by flagging tape. All of the holes encountered an overlying layer of black organic muck, averaging 3 to 6 metres in depth. Previous mining in the region indicates that this layer never carries economic gold, so after testing the first few holes, this layer was not recovered to facilitate drilling. Below the organic layer is a layer of clay, sand, and gravels averaging 6 to 12 m thick. These sediments were collected 0.6 m in labelled plastic bags. At an average depth of 6 to 12 m bedrock was encountered, although a few holes extended to over 30 m. A 0.6 to 1.2 m sample of bedrock was also collected.

Holes 88AUS-1 through 88AUS-49 were drilled as reconnaissance holes over the entire length of the property (Figure 5). There were two principles for the targeting of these drill holes; first, that placer gold is concentrated where a tributary enters a stream, and second, to test tributaries for their placer gold. The first principle was tested by drilling a fence of three holes across the major stream downstream from where a large tributary entered, one fence approximately every 2 km. The second principle was tested by drilling a fence of three holes across the mouths of large tributaries.

Holes 88AUS-50 through 88AUS-66 were concentrated around the western limit of the property to follow up encouraging results from 88AUS-3 and 4 (Figure 6). Eight of these holes were located along the southern bench to test the possibility of a bench placer deposit.

In 1989, holes 89AUS-1 to 89AUS-22 were drilled, also near 88AUS-3 and 4. These holes were pattern drilled to delineate an area suitable for a bulk testing program

#### Drill Results

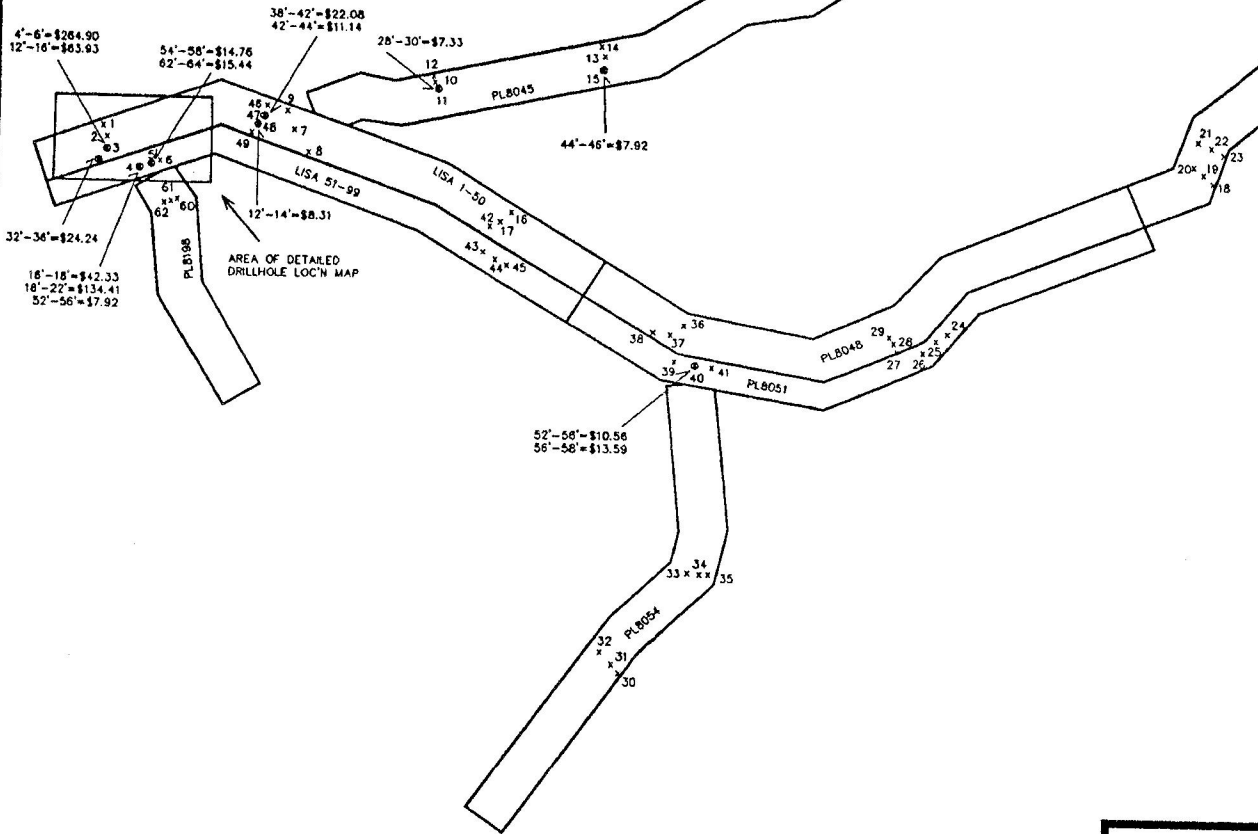
Economic values (i.e. >\$5.00/cubic yard) are listed below:

Hole No.	Interval (feet)	Au Content (g/cu m)	Au Content (Cdn\$/cu yd)
88AUS-3	4-6	21.68	264.90
	12-16	5.232	63.93
88AUS-4	16-18	3.464	42.33
	18-22	11.000	134.41
	52-56	0.648	7.92
88AUS-5	54-58	1.208	14.76
	62-64	1.264	15.44
88AUS-11	28-30	0.600	7.33
88AUS-15	44-46	0.648	7.92
88AUS-40	52-56	0.864	10.56
	56-58	1.112	13.59

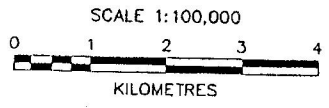
88AUS-47	38-42	1.808	22.09
	42-44	0.912	11.14
88AUS-48	12-14	0.680	8.31
89AUS-12	12-16	1.984	24.24

Although the gold values are erratic, there are some extremely high values which may represent an economic pay streak, particularly near holes 88AUS-3 and 4. The best values near these holes correspond to a bedrock high that is possibly due to an underlying granite dyke.

DAWSON  
40 miles

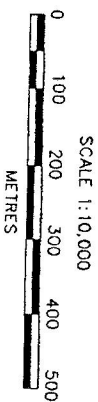


NOTE: x = 88AUS-  
• = 89AUS-12

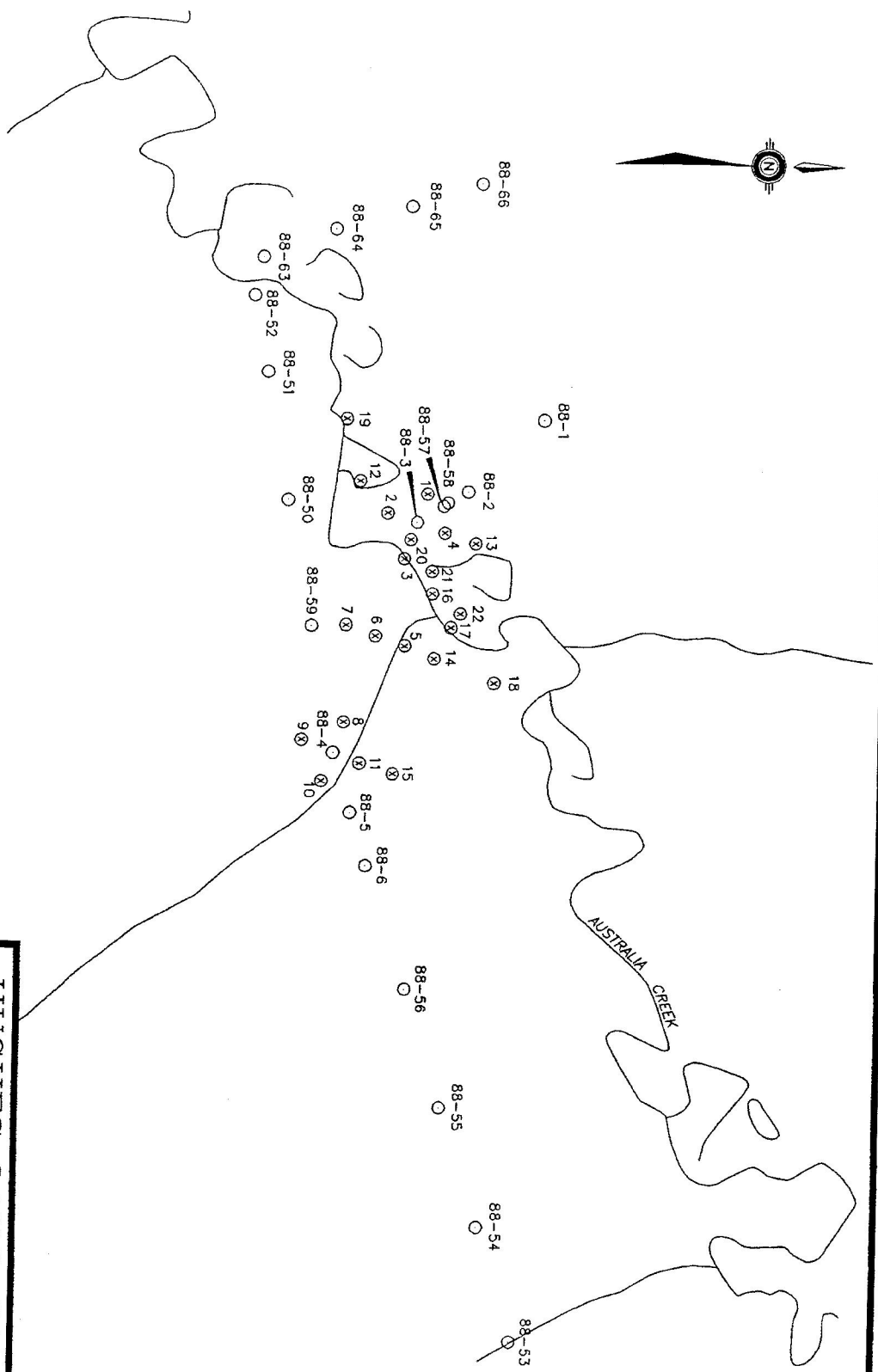


HUGHES LANG CORPORATION  
AUSTRALIA CREEK PROPERTY  
DAWSON MINING DISTRICT, Y.T.  
REGIONAL DRILLHOLE  
LOCATION MAP  
BY: S.T./p.s.  
MARCH, 1989  
FIGURE: 4





LEGEND  
⊗ 88 DRILLHOLES  
○ 88 DRILLHOLES  
28



HUGHES LANG CORPORATION  
AUSTRALIA CREEK PROPERTY  
DAWSON MINING DISTRICT, Y.T.  
DETAILED DRILLHOLE  
LOCATION MAP

BY: S.T./p.s.  
DATE: APRIL, 1989

FIGURE: 5

### *5.3.1.2 Auger Drilling*

There have been several campaigns of auger drilling carried out in the Australia Creek valley. Most of the auger drilling since 1990 has been close to the mouth of Australia Creek and drilled in lines crossing the valley looking for economic deposits farther downstream that would enable a mining operation to begin downstream, close to road access and then have mining proceed upstream.

Fry Exploration and Mining has approached the creek in a different fashion. Fry proceeded directly to the area of the drill holes with the highest grades (see rotary drilling section) and drilled a group of holes in 2013 and 2014 to try and replicate those values. As can be seen by the attached maps and tables they were unable to match the higher grades found in the 1998 drilling. As drilling progressed in 2013 and 2014 the values increased toward the left limit at the main valley. The final three holes along the creek on the left limit were the best of the program. A 2014 program of drilling auger drill holes was performed on the left limit of Australia Creek starting 45 metres from the creek along an east-west line. Although the drilling was completed a huge flooding event occurred and the drill crew had to evacuate before the drill samples could be concentrated and panned out. Depths can be seen from the attached drill log.

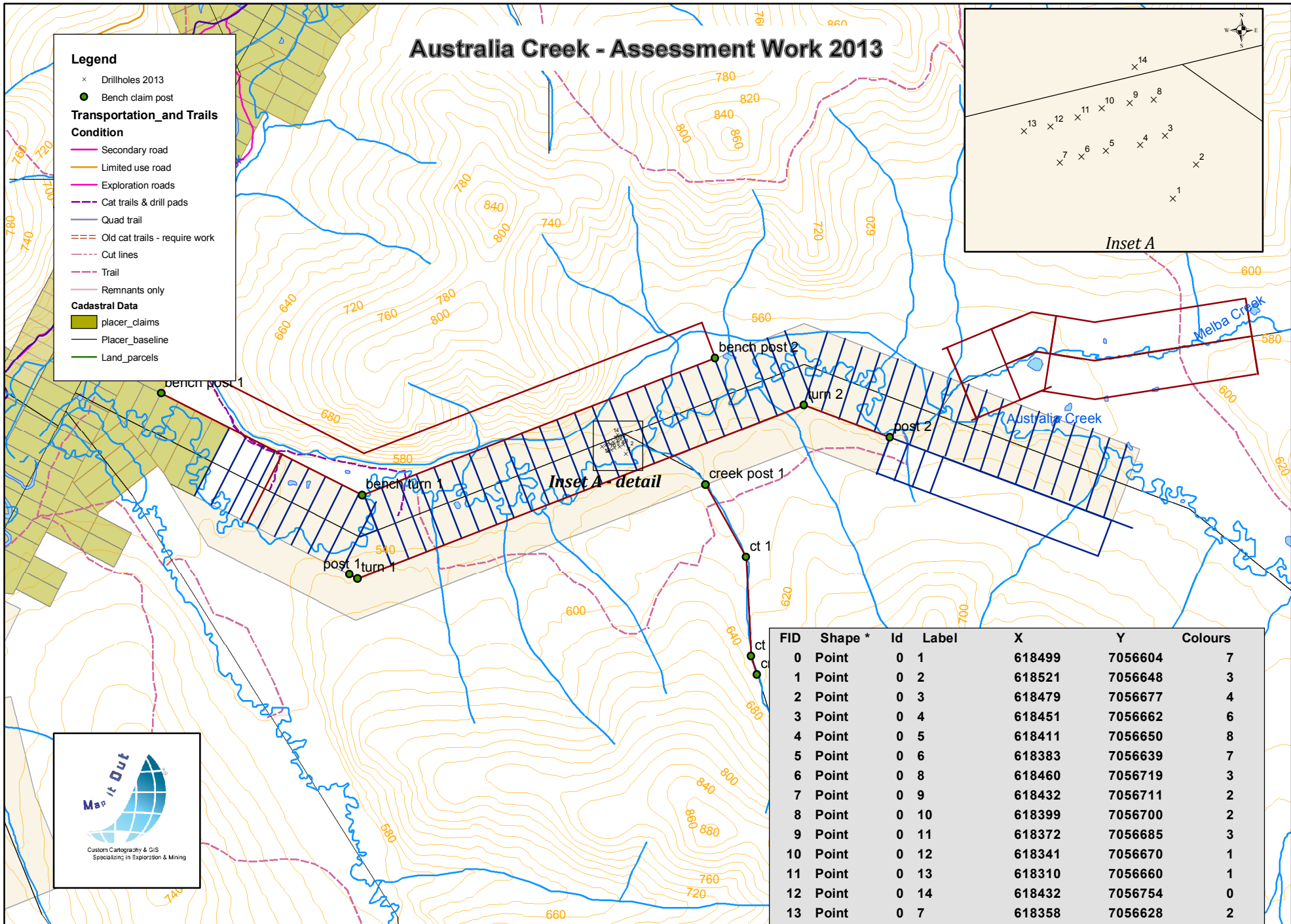
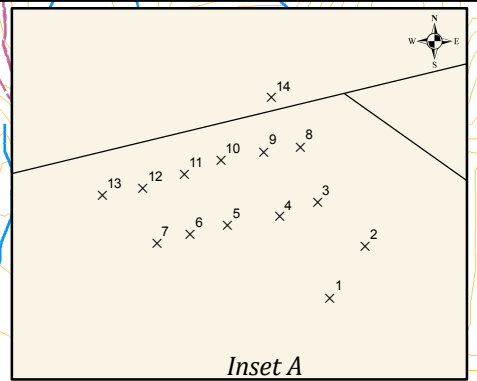


Photo looking south; area of 2013 and 2014 drilling.

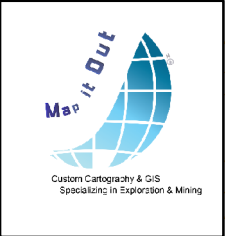
# Australia Creek - Assessment Work 2013

## Legend

- × Drillholes 2013
- Bench claim post
- Transportation\_and Trails Condition**
- Secondary road
- Limited use road
- Exploration roads
- Cat trails & drill pads
- Quad trail
- Old cat trails - require work
- Cut lines
- Trail
- Remnants only
- Cadastral Data**
- placer\_claims
- Placer\_baseline
- Land\_parcel



FID	Shape *	Id	Label	X	Y	Colours
0	Point	0 1		618499	7056604	7
1	Point	0 2		618521	7056648	3
2	Point	0 3		618479	7056677	4
3	Point	0 4		618451	7056662	6
4	Point	0 5		618411	7056650	8
5	Point	0 6		618383	7056639	7
6	Point	0 8		618460	7056719	3
7	Point	0 9		618432	7056711	2
8	Point	0 10		618399	7056700	2
9	Point	0 11		618372	7056685	3
10	Point	0 12		618341	7056670	1
11	Point	0 13		618310	7056660	1
12	Point	0 14		618432	7056754	0
13	Point	0 7		618358	7056628	2



# 2014 Auger Drilling Australia Creek

N



Australia Creek

Aus 23  
P 515634

Aus 24  
P 515635

Aus 25  
P 515636

Aus 26  
P 515637

AUS-2014-01

AUS-2014-02

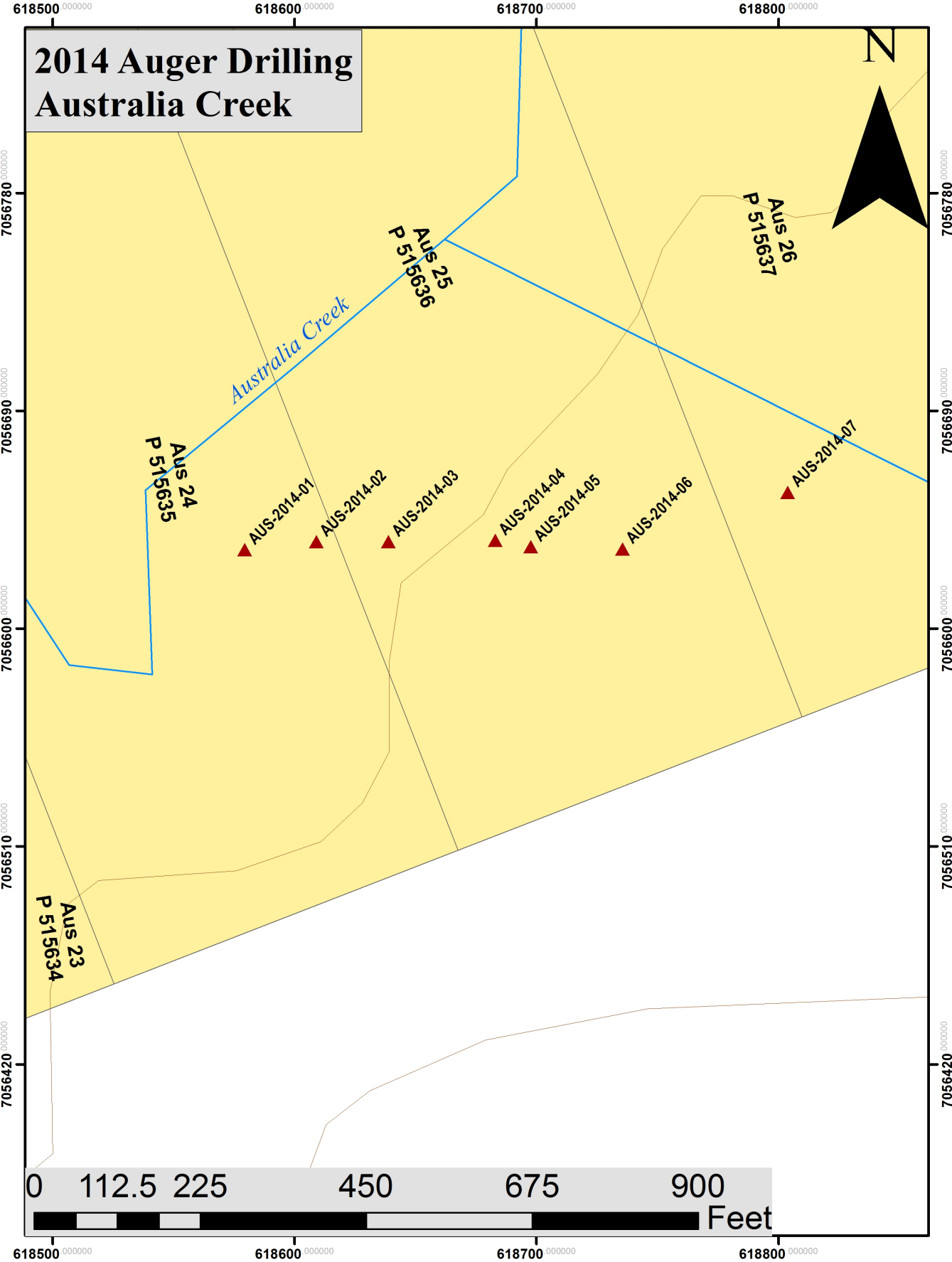
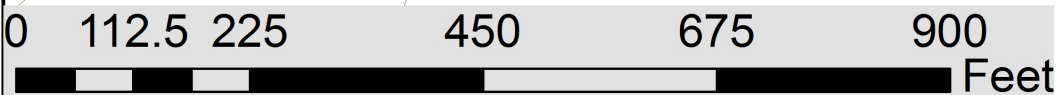
AUS-2014-03

AUS-2014-04

AUS-2014-05

AUS-2014-06

AUS-2014-07



## PLACER DRILL LOG

Print Form

DATE: 02/08/14 to 08/08/2014 TIME: \_\_\_\_\_ DRILLER: Kyler Hardy HELPER: Nicolai GoepfelTYPE OF DRILL: Nedwell mounted 6in Auger drill INSIDE DIAMETER OF DRILL: 6inchLOCATION: Australia Creek, Dawson Mining District LEASE/GRANT #s: \_\_\_\_\_

DRILL HOLE NUMBER	TOTAL FOOTAGE	BREAKDOWN IN FEET (of materials encountered)	REMARKS (Samples/Results)
AUS-2014-01	20ft	0-12' Black muck, 12-20' green brown gravel	Did not reach bedrock, Aug 2nd
AUS-2014-02	44ft	0-20' Black muck, 20-41' green-brown/grey gravels, 41-44' decomposed bedrock	Boulders top of gravels, qtz chips, hard permafrost in overburden, Aug 2nd
AUS-2014-03	45ft	0-20' Black Muck, 20-41' green brown to grey gravels, 41-45' decomposed bedrock	Boulders in top of gravels, hard permafrost in overburden, Aug 3rd
AUS-2014-04	25ft	0-22' Overburden Black Muck, 22-25' brown sandy gravels	Did not reach bedrock, Aug 4th
AUS-2014-05	45ft	0-18' Black muck, 18-41' green-brown gravels, 41-45' decomposed Bedrock	Interbedded clay layers within lower section of gravels, Aug 6th
AUS-2014-06	25 ft	0-22' Black Muck, 22-25' brown green gravels	Hard permafrost in Overburden, Aug 7th
AUS-2014-07	35 ft	0-4' overburden Black Muck, 4-35' green brown to grey gravels	Boulder Section towards base of gravels, Aug 8th

DATE: August 20th, 2014

SIGNED: (Driller or Representative)


 Nicolai Goepfel



2014 Drilling



Braided streams and photo showing size of left limit benches.



Photo showing thawed material on top of bench.

## 6 Overview of the Australia Creek YMEP Program

The work program at Australia Creek in 2015/2016 was done in 3 segments. The program as first proposed in the application process had to be modified due to financial constraints that appeared during the program due in part to the difficulty of completing the Groundtruth survey early in the season (subject to delays in proposal and approval to complete survey from the Mining Recorder), as well as issues with accessing the necessary parts for repair problems with the auger drill. Although the drill was on the property all year, parts to repair the drill were not available and it was not used during the 2015 program as was planned.

As a result, the work in 2015/2016 included:

- 3,350 cu yd trenching program using the Hitachi Ex 120 along Australia Creek.
- Field visit and drone survey to determine location for shafting program
- Shafting program (17 feet depth) in March of 2016.

### 6.1 Trenching

Trenching in the 2015 season was restricted to small, shallow trenches because of constraints due to Placer Act regulations. Trenches could be no larger than 1,200 m<sup>3</sup> and needed to be 1,500' (3 claims) apart to fall within the regulations. Trenching took place between August 1 and August 8, 2015. Trench and camp locations are shown in Figure 9.

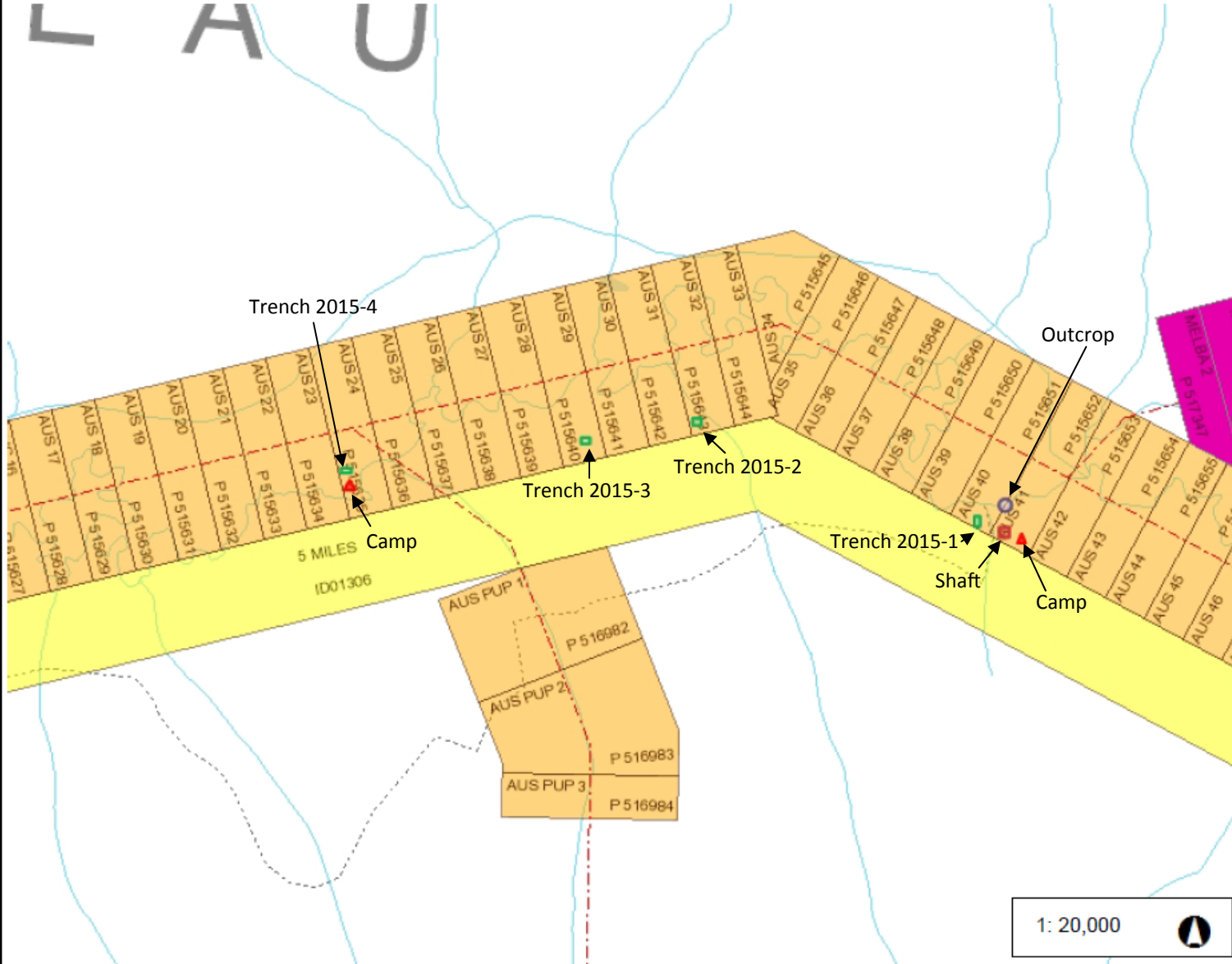
Trench TR2015-1 was located 10 metres above the creek level of Australia Creek along the left limit (downstream) side of a left limit tributary of Australia Creek (near Camp 2). An old trail had been cut into the bank and the trench was cut into the downstream side of the trail. This thawed material was excavated and the material from the deepest part of the trend was panned, yielding up to 10 colours. No bedrock was encountered. This trench was 90' x 15' x 15' for 750 cubic yards.

Trench TR2015-2 was dug along the edge of the left limit bench. It was situated just downstream of a small tributary flowing into Australia Creek. Material which was excavated was thawed down to the limit of the reach of the excavator. The material excavated was thawed gravels with cobbles up to 8" in size. The material in the bottom of the trench was panned yielding up to 7 colours in the pan. Bedrock was not reached in this trench. This trench was 60' x 15' x 21' for 700 cubic yards.

Trench TR2015-3 was dug along the side of a small drainage and was dug completely within black muck. No gravel was encountered, so no material was panned. This trench was 60' x 30' x 7.5' for 500 cubic yards.

Trench TR2015-4 was dug near camp 1. At this location, historic drill holes from Hughes Lang returned very high grade values. The material in the bottom of the trench was panned and yielded up to 7 colours in the pan. This trench did not reach bedrock. This trench was 60' x 30' x 21' for 1,400 cubic yards.

# 2015/16 Trench, Shaft, Camp and Outcrop Locations



### Legend

- New Placer Claims
- Placer Baselines (unsurveyed)
- Placer Baselines (surveyed)
- Placer Claims (50K)**
- Active and Pending
- Expired
- Prospecting Leases**
- Active and Pending
- Expired
- Adjoin Placer**
- Placer Mining Land Use Permi**
- Class 3
- Class 4
- Surveyed Mineral Claims
- Current Class 1 Notifications**
- Valid
- In Review
- Pending
- Cancelled
- Expired
- Rejected
- Closed
- Areas defined by OIC
- First Nation Survey Lands - Ca
- First Nation Unsurveyed Lands
- Areas withdrawn from staking

1: 20,000

1.0 0 0.51 1.0 Kilometers  
Yukon Albers  
Produced from: Yukon Mining Viewer

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.  
Date Printed: 31-Mar-2016

**Notes**  
Figure 9



During the trenching program a small (1 cu yd) bulk sample was sluiced from the bedrock of Australia Creek at the “discovery outcrop” location and run through a longtom sluice box. This bulk sample returned 1.2 grams of gold in the cubic yard tested.

## **6.2 YMEP Field Tour**

A one day property visit was performed by Bill Harris and Daryl Fry, accompanied by Derek Torgerson and Carolyn Relf of the Yukon Geological Survey. The purpose of the trip was to familiarize Derek and Carolyn with the project and acquaint them with the scale of the target at Australia Creek and its similarity in scope and setting to the Indian River placers downstream of the confluence of Australia Creek, Dominion and Sulphur Creeks. The actively mined cuts along the left limit benches of the Indian River are very alike the left limit benches of Australia Creek in gravel type, size, depths and vegetative cover.

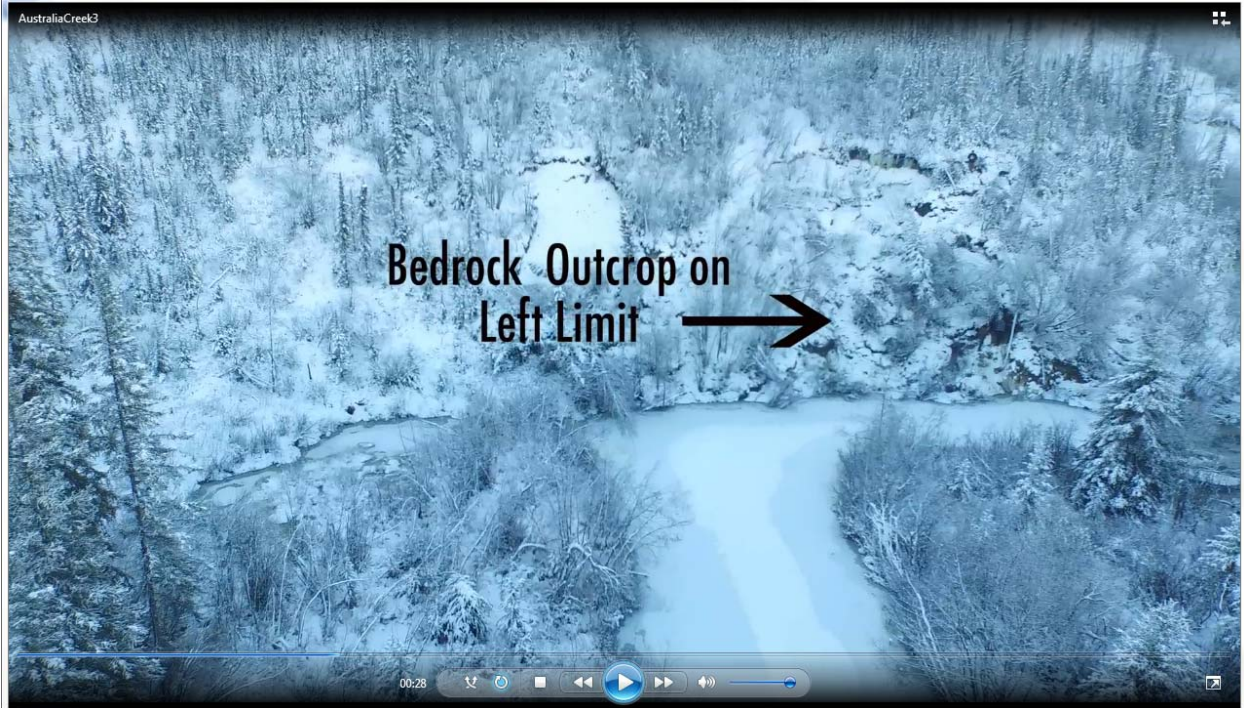
## **6.3 November Field Visit**

A trip to Australia Creek was completed in early November with 2 geologists and a miner to help plan the location of a shafting program and consider plans for future drill campaigns. The site was accessed using a helicopter from Fireweed Helicopters from Dawson City. Several rice bags of material were collected and panned back in Whitehorse/Haines Junction because the material was frozen and so was the water in the creek. Values were very low due to the frozen nature of the material sampled.

The decision was made to dig a shaft several hundred feet uphill and on the same creek limit and tributary limit as the bedrock outcrop where gold was discovered in 2015, and a small bulk sample sluiced in 2016.

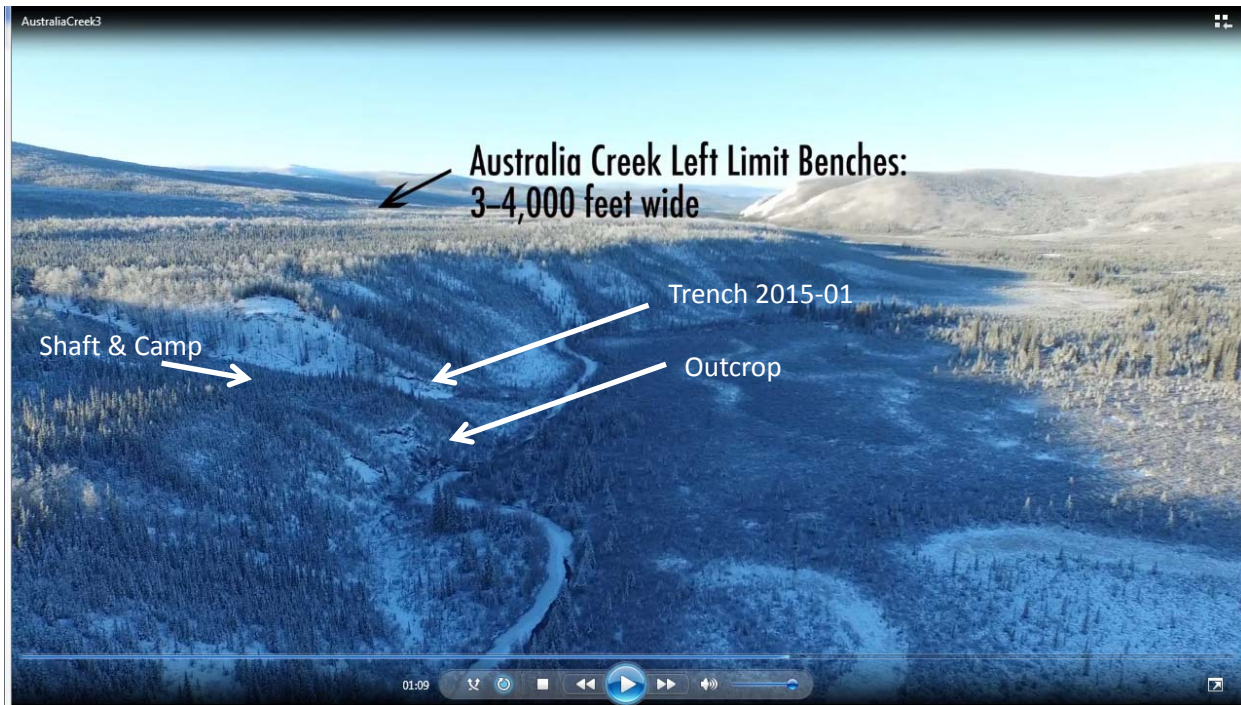
During this visit James Rogers (P.Geo.) also utilized a UAV (drone) to record a video of the area around the outcrop and showing the extent of the benches and size of Australia Creek in this area. A memory stick with the video on it is attached in Appendix 1. The images shown on the following page are screen shots taken from the video. These images show the size and scale of Australia Creek and the benches associated with it.

Marcel Dulac (a placer miner mining on Allgold Creek, but familiar with many creeks in the Klondike) came along to give his opinion on the gravels in the creek and their mineability and to look at the area from a mining point of view.



## 7.4 Shafting

A 3 foot by 4 foot (1 m x 1.3 m ) shaft was sunk to 17 feet in March of 2016 on a location approximately 250 feet (80 metres) uphill from the bedrock outcrop upon which gold was discovered in 2015 (see figure 9 and image from drone below).



During the trenching program in 2015 gold was panned from a trench in the downstream bank of a small tributary of Australia Creek near the discovery outcrop. A small bulk sample was sluiced from material on the bedrock just upstream of the discovery outcrop, yielding 1.2 grams Au/cu yd. A decision to locate the shaft in this area was based on these multiple locations yielding gold in good quantities. A spot on the upstream side of the left limit tributary was chosen because it had a flat area that could be closer to bedrock than the downstream side of the tributary.

The photos below show the progress of the shaft construction and excavation.





At 2 feet depth you can see a poorly-sorted crudely-stratified pebble-cobble gravel with some frost-shattered clasts and a silty matrix. Clasts are somewhat oblate and subrounded to subangular.



At 4 feet there is a massive to disorganized poorly-sorted cobble-pebble gravel with a silty matrix and pebbly silt interbeds.



At 6 feet there is a moderately-sorted, clast-supported, crudely-stratified to massive pebble-cobble gravel with a sandy matrix. The clasts appear to have an increase in overall sphericity than clasts in the layers above.



At eight feet there is a massive, matrix-supported cobble pebble gravel with a sandy matrix and subrounded to rounded clasts.



At 10 feet there is a massive, matrix- to clast-supported gritty pebble cobble gravel with abundant rounded, spherical quartz and granitic clasts.



At 12 feet there is a massive to crudely stratified, matrix to clast-supported gritty to sandy cobble pebble gravel with abundant quartz clasts.

During a trip to the field by Bill Harris and Deryk Law in late March , the shaft measured 12 feet. Deryk and Bill panned gold from the material dug for the shaft at that time. Bill and Deryk also took GPS readings of outcrops, trenches, trails and camp during the trip.



As the shaft continued to deepen, pans recovering 10 good sized colours were recovered.



At 14.5 to 15.5 feet a boulder layer was encountered with up to 10" round boulders; the largest on the upstream sidewall of the shaft.

At 16.5 feet the gravels changes to a golden brown and larger garnets (up to 3/16") were being found. The final depth of the shaft reached 17 feet in this program.

## 7 Summary and Conclusions

Although the planned program for Australia Creek had to be altered for various reasons, results obtained from the trenching and shafting program were encouraging. The 2015/2016 work program focused on two areas: Trench 2015-4 by Camp 1 and the Discovery Outcrop/shaft area by Camp 2.

Trench 2015-4 was the largest trench excavated in the 2015 program. Although this trench did not reach bedrock, the presence of a fairly significant number of fine colours high up in the gravel column suggest the potential for a significant concentration of placer gold on bedrock. Trench 2015-4 was excavated in an area where earlier drilling campaigns along the left limit had returned good results. The 2015 work supports that this area still has potential to host a mineable placer deposit.

Although the proposed drilling and Groundtruth surveying/UAV drone work was not completed, the 2015/2016 work in the Discovery Outcrop area returned interesting results. Bulk sampling returned 1.2 grams of gold per cubic yard. Trench 2015-01 in this area, also did not reach bedrock, yet significant numbers of colours warranted excavation of a shaft in the area, with the aim to reach bedrock. The pans from the shaft at the 12 foot level and deeper also showed significant number of colours. A boulder layer with >10" boulders was encountered at 1.5 feet. The size of the garnets recovered (a key indicator and companion element in Indian River placers) increased considerably at the 16 foot level in the shaft.

Results from the trenching and shafting program and especially the bulk sampling results not only indicate the potential for an economic placer deposit, yet have also focused the target areas to work on.

The video produced by the drone also shows companies and miners interested in the area the large scale target of the Australia Creek area. Additional footage not included in the video will be beneficial for future workers on the project.

## 8 Recommendations for Further Work

Further work is recommended to focus on two key areas:

- Target 1: Auger drilling within the bench area beside Trench 2015-4 and deepening of the trench to reach bedrock.
- Target 2: Auger drilling, trenching and completing shafts to bedrock in the Discovery Outcrop area, along the bench and tributary, and out into the main valley of Australia Creek along the left limit area. Trench 2015-1 would also be deepened to reach bedrock.

Prospecting will continue along the left limit of the creek valley, as well as along the bench and the tributaries of Australia Creek for more areas of high potential to contain economic placer deposits.

Activities should include:

- Camp Construction (2 locations)
  - a. 2 men x 2 days x 2 = 8 man days (1 prospector/project manager, 1 helper)
- Auger Drilling on track mounted rig
  - a. 40 holes x average depth of 25 feet = 1,000 feet total
    - i. 3 holes per day, 2 men (driller, geologist) (13 days or 26 man days)
    - ii. Cleanup/Sluicing/Panning Concentrates = 3 days x 2 = 6 man days (geologist, prospector/project manager)
- Shafting
  - a. Complete shaft begun in 2015/2016 program by shafting to bedrock
    - i. 2 man (shafter, shafter helper) x 10 days = 20 man days
- Ground Truth Program
  - a. 1 day of Drone Survey, process data
  - b. 2 days of GPR/Resistivity survey
- Trenching with Hitachi 120 excavator and John Deere 750 dozer
  - a. 6 locations: 20 hours per machine per trench per trench = 12 days (note 1200 cu m /trench)

Shafting would be concurrent with drilling program so geologist and prospector/project manager could oversee progress. Prospecting and sampling along the full extent of the creek and benches would be concurrent with the program in order to maximize the values of the prospectors and geologists time on the project.

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## **Appendix 1: Drone video of Australia Creek**