

## ASX ANNOUNCEMENT

### September 2021 Quarterly Report

# Outstanding exploration results highlight strong growth outlook at 1.7 Moz Pickle Crow Gold Project

## AuTECO on track for Resource update in February 2022

AuTECO Minerals (AuTECO or the Company) (ASX:AUT) is pleased to report on a highly successful quarter in which the Company made another significant discovery as part of its strategy to grow the 1.7Moz Resource at its Pickle Crow Gold Project in Canada.

### KEY POINTS - OPERATIONAL<sup>1</sup>

- Inferred Resource at Pickle Crow increased by 710,000oz to 1.7Moz at 8.1g/t gold
- New Tyson vein system discovered. Mineralisation was encountered in every hole drilled on 160m spacing over a strike of 400m+ and to depths exceeding 800m below surface. Results to date include:
  - 2.8m @ 17.9 g/t gold from 578.3m in hole AUDD0173 (50.1 gt\*m)
  - 0.5m @ 88.7 g/t gold from 455m in hole AUDD0184 (44.4 gt\*m)
  - 6.5m @ 6.6 g/t gold from 838.1m in hole AUDD0166 (42.9 gt\*m)
  - 4.9m @ 7.5 g/t gold from 483.2m in hole AUDD0152 (36.8 gt\*m)
  - 1.0m @ 30.1g/t gold from 546m in hole AUDD0152 (30.1 gt\*m)
  - 3.3m @ 8.0 g/t gold from 836.4m in hole AUDD0166 (26.4 gt\*m)
  - 4.9m @ 4.7 g/t gold from 514.1m in hole AUDD0178 (23.0 gt\*m)
  - 5.5m @ 4.1 g/t gold from 566.5m in hole AUDD0173 (22.6 gt\*m)
  - 1.1m @ 10.4 g/t gold from 665.05m in AUDD0166 W1 (11.4 gt\*m)
- The Tyson discovery points to further Resource growth, with the veins outside of the current 1.7Moz Resource<sup>2</sup>. The vein system remains open in all directions
- High-grade gold results received from Carey, with mineralisation intersected between the north-west trending veins and the southern contact zone of the Albany porphyry. Results include:
  - 9.8m @ 3.1 g/t gold from 140.3m in hole AUDD150 (30.4 gt\*m)
- Near-mine drilling continues to define new mineralisation outside the 1.7 Moz Resource, with results reported during the quarter including:
  - 3.3m @ 15.9 g/t gold from 31.8m in hole PG-G-03A (Shaft 1, crown pillar)
  - 0.5m @ 88.7 g/t gold from 455m in hole AUDD0184 (Shaft 3, new structure)
- A Resource update as at 31 December 2021 is on track for delivery in February 2022

<sup>1</sup> Refer to ASX releases dated 16/06/2021, 15/7/2021, 2/08/2021 and 5/10/2021 for details on drilling results

<sup>2</sup> Refer to ASX release dated 15 July 2021 for details of the AuTECO Mineral Resource Estimate.

## KEY POINTS – CORPORATE

- AuTECO met the Stage 2 earn-in requirement for Pickle Crow by spending C\$5M. The Company now holds 70% of the project. Auteco can elect to acquire a further 10% interest by paying C\$3M at any time, taking its stake in Pickle Crow to 80%.
- The Company executed a binding term sheet with Mithril Resources (ASX:MTH) for the acquisition of the Limestone Well Vanadium-Titanium project for a cash consideration of A\$500,000. The existing joint venture, in which AuTECO was obligated to spend A\$2.5M to earn 80% of the project, will be dissolved on completion of the agreement.
- AuTECO remains fully funded for its growth strategy, with A\$16.4M in cash at 30 September 2021.

**AuTECO Executive Chairman Ray Shorrocks said:**

*“We have one simple objective at AuTECO, which is to create shareholder value by growing the Resource.*

*“The outstanding exploration results we generated during the quarter shows our strategy to continue achieving that objective is working. As a result, we are on track for a February Resource update.*

*“We will continue drilling at Tyson to gain further understanding of the mineralisation there and work towards a maiden Mineral Resource for the deposit, while the results at Carey and from near-mine drilling could also potentially add to our Resource.”*

## ABOUT THE EXPLORATION PROGRAM

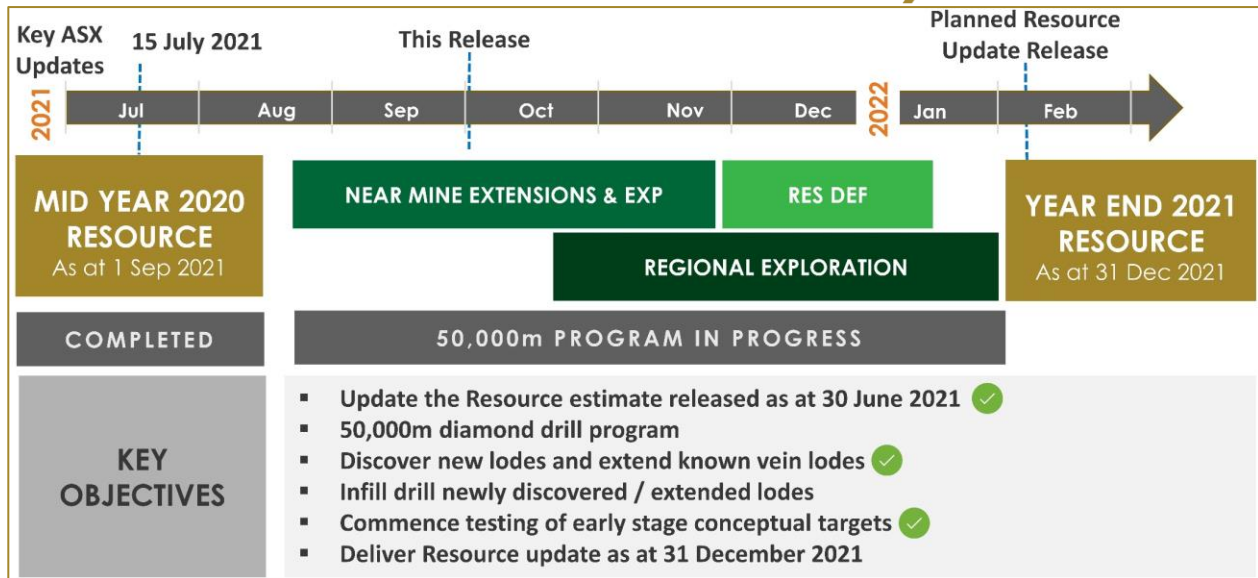
AuTECO commenced a Stage 2 50,000m diamond drill campaign in June 2021, following the success of its previous 45,000 metre drill campaign that delivered a 71% increase in the Inferred Resource to 1.7 million ounces of gold at a grade of 8.1 g/t Au.

The dual strategy of driving near-mine Resource growth combined with early-stage exploration targeting will continue to be the focus of the drilling program (Figure 1). A Resource update as at 31 December 2021 is scheduled for release in February 2022.

As at the end of the September quarter, AuTECO had completed 36 drill holes for 14,383m. The program was impacted by a directive from the Ontario government to cease drilling activities during periods of high wildfire risk., resulting in six weeks of downtime between late July and early September.

At the end of the September quarter, there were four diamond drill rigs active on site. AuTECO has sourced an additional drill rig to commence in late October, and it is anticipated that the 50,000-metre program is on track to conclude in Q1 2022 despite the delays. Assay turnaround time is now 33 days. Although increased from previous quarters, this is still ahead of industry benchmarks at present.





**Figure 1:** Current AuTECO strategic work plan and key objectives from July 2021 until the scheduled release of the year end Resource update in December 2021. Please note that timeframes are indicative.

## EXPLORATION AND GEOLOGICAL DETAIL

### Deposit Overview

The Pickle Crow deposit is located in the Uchi-Birch sub-province of the Archean aged Superior Craton (Figure 2). AuTECO manages approximately 500 square kilometres of tenure in the northern Pickle Lake greenstone belt (Figure 3).

The Pickle Crow deposit is a typical Mesothermal narrow-vein high grade Archean orogenic gold deposit, with mineralised veins present within local structures formed within a broader Riedel shear zone. Historically between 1935 and 1966, 1.5 Moz of gold at a grade of 16.1 g/t was mined from more than 10 individual quartz reefs. To date >30 individual veins have been identified proximal to underground shaft infrastructure (Shaft 1, Shaft 3, and Albany Shaft). Exploration results have been grouped based on proximity to the three main shafts.

### Drilling During the September Quarter

Drilling activity focused on 3 primary areas during the September quarter:

- Shaft 3 Resource Extension drilling
- Albany – Carey Area
- Area east of Shaft 3 (the newly discovered Tyson veins).

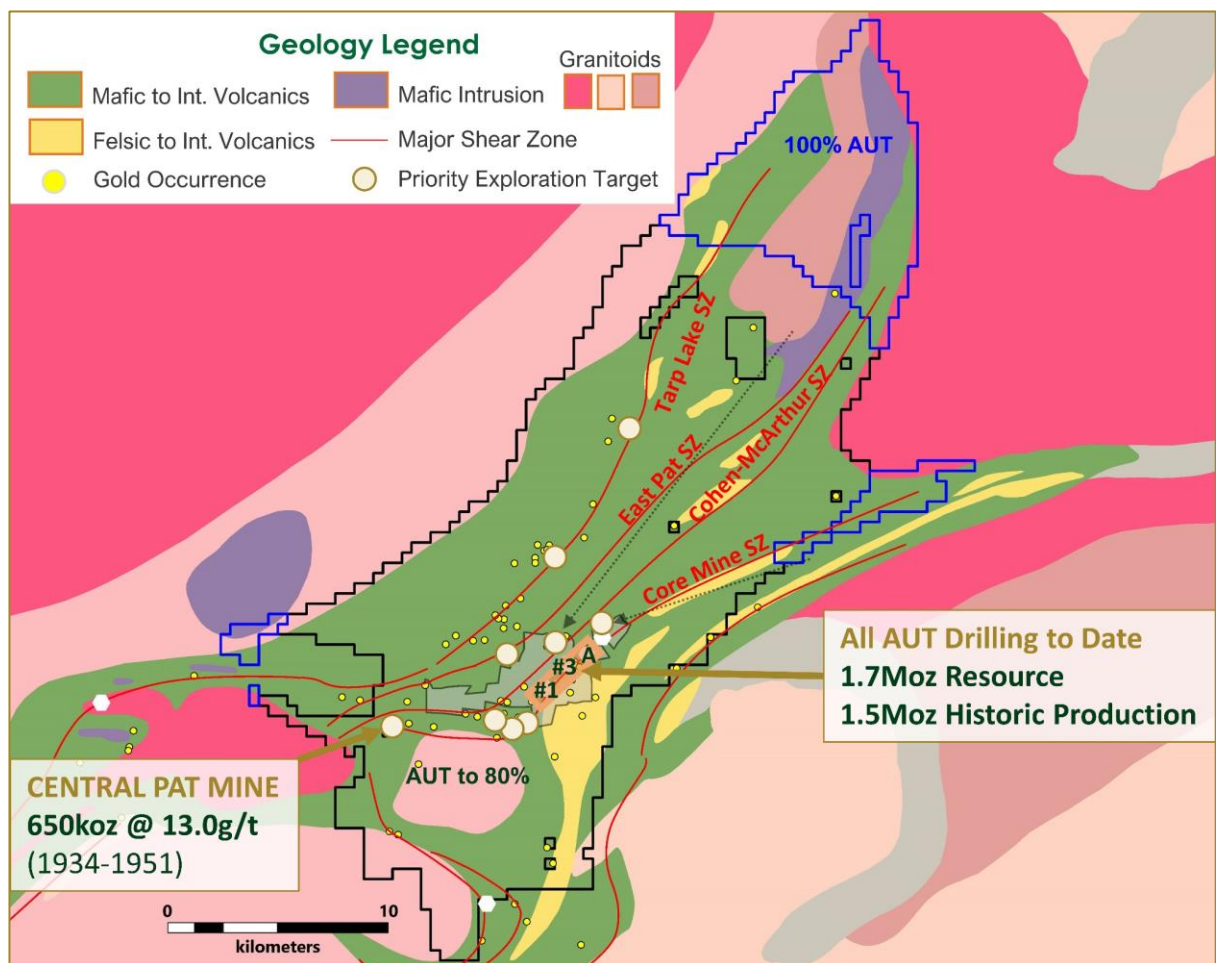
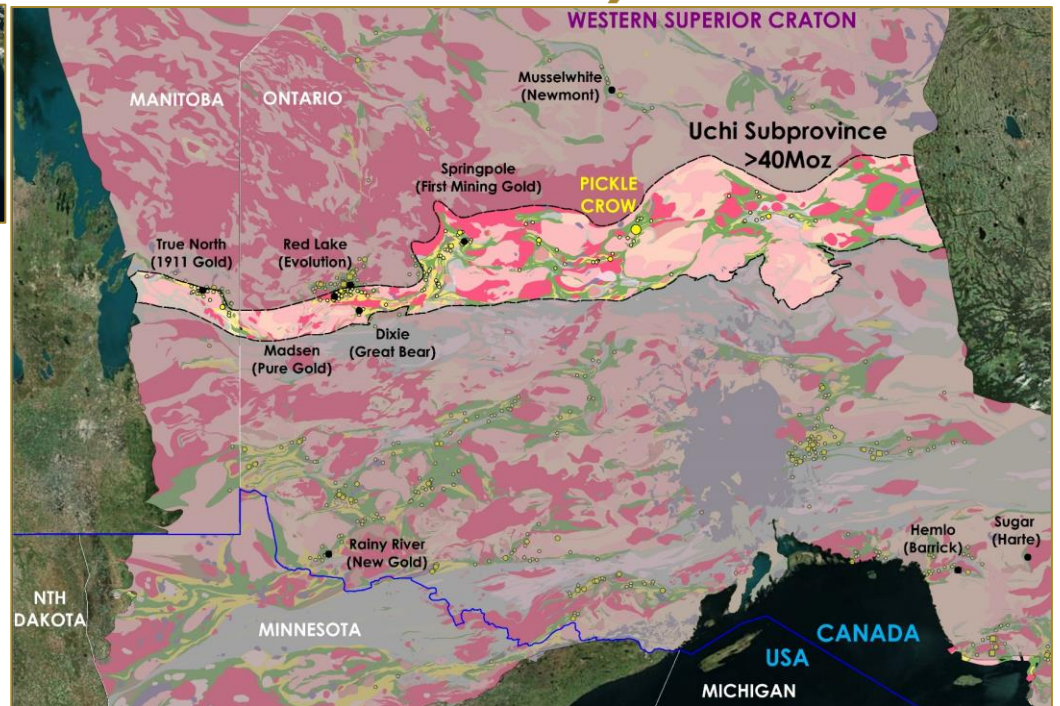
Assay results are pending on Albany - Carey and Shaft 3 extensional drilling.







**Figure 2:** Location of the Pickle Crow deposit within the Uchi sub-province of the Superior Craton, Ontario, Canada



**Figure 3:** Geology and mining claims managed by AuTECO in the northern Pickle Lake greenstone belt. Note all work has been conducted by AuTECO to date is within the orange box. Production at Central Pat mine is historic (650koz) and is separate to the historic production referenced at the Pickle Crow deposit (1.5Moz).



## Tyson Veins Discovery

AuTECO announced a high-grade gold discovery during the quarter. The Tyson vein system consists of at least three persistent quartz-carbonate-scheelite-gold veins that dip moderately towards the north-west.

Mineralisation within the vein structures has been encountered over an interpreted strike of ~400m and at depths exceeding 800m below surface.

The width of the veins is also highly promising, with seven of the 10 intersections to date being greater than 2m wide and mineralised zones of up to 6.5m observed.

Initial exploration has tested a portion of the Tyson veins on a 160m by 160m pattern and all holes have intersected significant gold mineralisation. The Tyson vein system remains open in all directions.

The Tyson vein zone was discovered during drilling for extensions and the development of additional Riedel shear structures east of the main core-mine shear corridor. Based on previous exploration models, the units further east of the Core Mine shear were considered less prospective and hence has been relatively under-explored.

Work in the December quarter will focus on infill drilling and extending the Tyson vein system. The Tyson veins are outside of the recently reported Inferred Resource of 1.7 Moz at 8.1 g/t and demonstrate the potential for continued growth of the Resource with focused and systematic exploration.

A plan map showing the collar locations of recent significant intersections and the location of the Tyson vein discovery is presented in Figure 4.

Unlike many of the historically mined veins, the Tyson veins lacked surface expression.

Historic exploration models favoured targets within Riedel shears hosted by chemically or rheologically favourable host rock units, such as banded iron or porphyry. Whilst this concept has historically proven successful, recent drill information suggests outliers to the accepted model, with potentially economic mineralisation encountered in perceived less favourable units within the greenstone package, including conglomerate (Figure 5).

This exploration has resulted in large areas of the in-mine environment having limited systematic drill testing, with the discovery of the Tyson veins an example of the potential. At depth the Tyson veins are also situated less than 100m from Vein 19, which is one of the highest-grade portions of the existing 1.7 million ounce Inferred Mineral Resource at Pickle Crow.





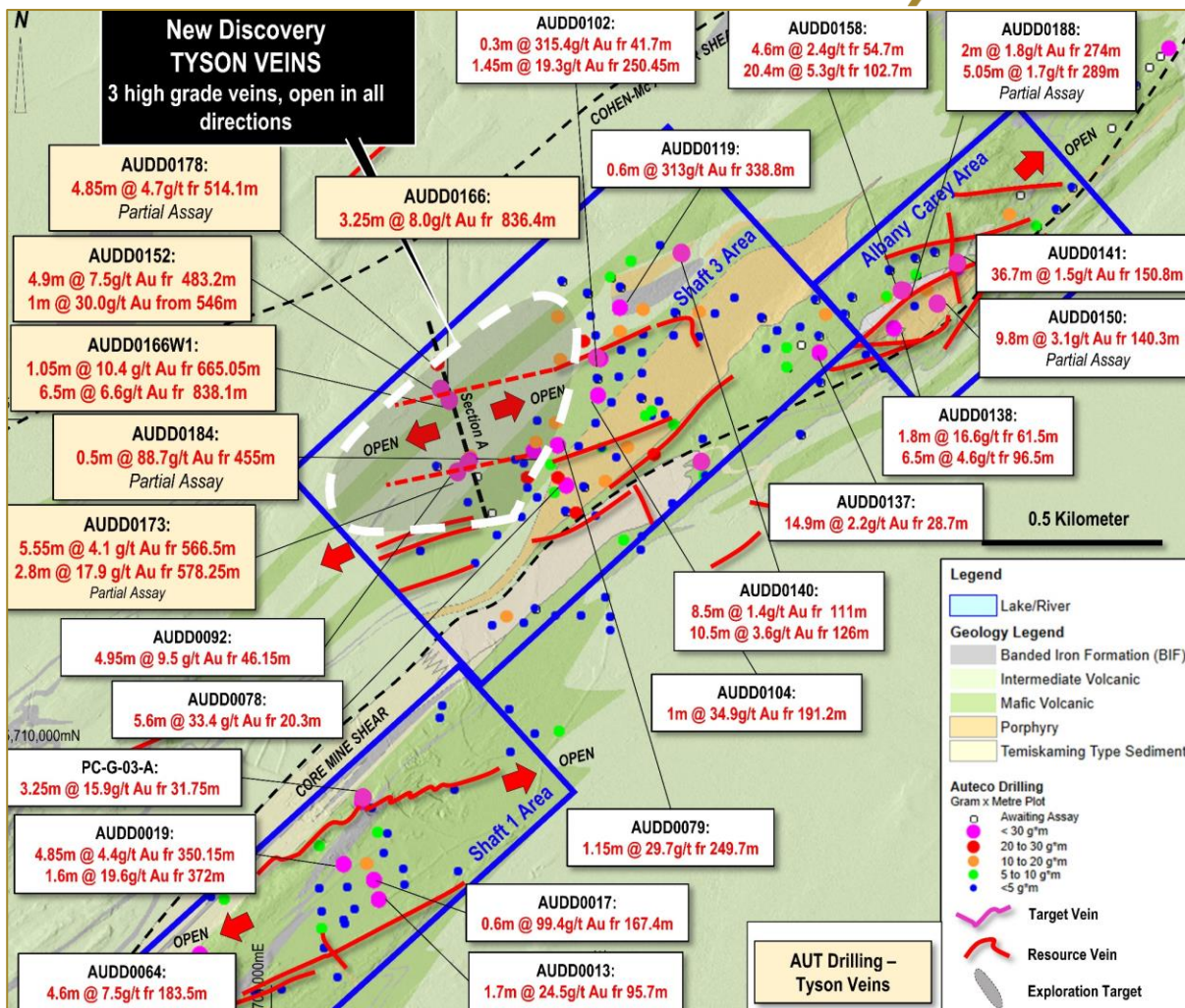


Figure 4: Recent drill intersections from the Tyson vein discovery. See Figure 5 for cross section

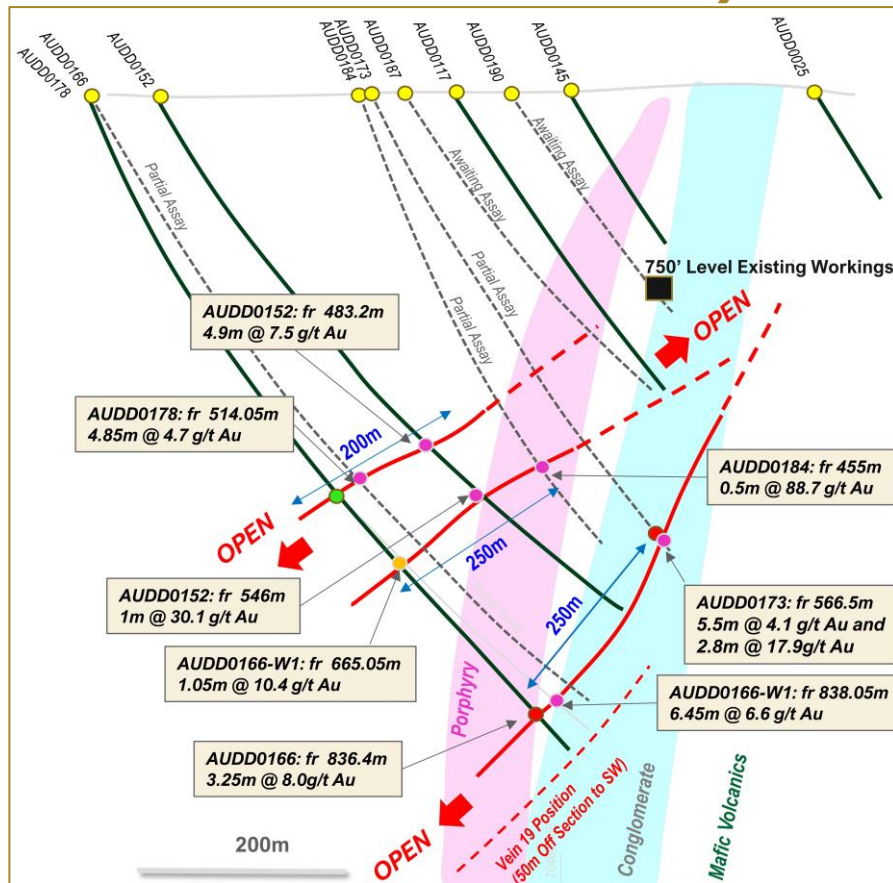
Drilling is currently on a nominal 160m by 160m drill grid and intersections from this first pass target testing include:

- 2.8m @ 17.9 g/t gold from 578.3m in hole AUDD0173 (50.1 gt\*m)
- 0.5m @ 88.7 g/t gold from 455m in hole AUDD0184 (44.4 gt\*m)
- 6.5m @ 6.6 g/t gold from 838.1m in hole AUDD0166 (42.9 gt\*m)
- 4.9m @ 7.5 g/t gold from 483.2m in hole AUDD0152 (36.8 gt\*m)
- 1.0m @ 30.1 g/t gold from 546m in hole AUDD0152 (30.1 gt\*m)
- 3.3m @ 8.0 g/t gold from 836.4m in hole AUDD0166 (26.4 gt\*m)
- 4.9m @ 4.7 g/t gold from 514.1m in hole AUDD0178 (23.0 gt\*m)
- 5.5m @ 4.1 g/t gold from 566.5m in hole AUDD0173 (22.6 gt\*m)
- 1.1m @ 10.4 g/t gold from 665.05m in AUDD0166 W1 (11.4 gt\*m)

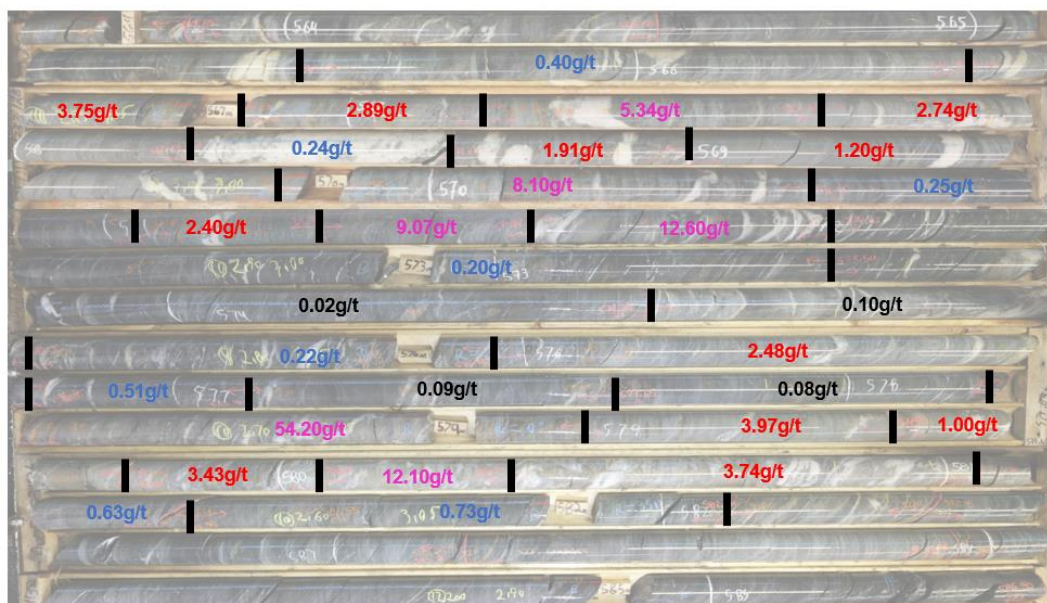
An example of mineralisation in the Tyson veins is shown in Figure 6, which shows core photographs of hole AUDD0173.







**Figure 5:** Cross Section A through the New Tyson Discovery (refer to plan map Figure 4 for location). Showing three NW dipping stacked zones of mineralisation identified on 120-160m drill spacing. Select intervals >4g\*m shown on section along with areas of partial assay. Interpreted orientation is supported by oriented drill core.



**Figure 6:** AUDD0173: 5.5m @ 4.1 g/t Gold from 565.5m to 572.05m in New Vein. Plus 2.8m @ 17.9 g/t Gold from 578.25m to 581.05m in Vein 19, a 160m step out/up dip extension. Multiple quartz-tourmaline-scheelite-gold veins up to 0.4m wide within sheared, intensely sericite-carbonate altered, conglomerate and metasediments.



Further assay results for the Tyson veins are anticipated during the December quarter.

Please see historical ASX Releases dated 28/01/2020, 26/03/2020, 29/06/2020, 01/09/2020, 11/11/2020, 19/01/2021, 07/04/2021, 16/06/2021, 15/07/2021, 02/08/2021 and 5/10/2021 for further details of drilling results referred to in this section.

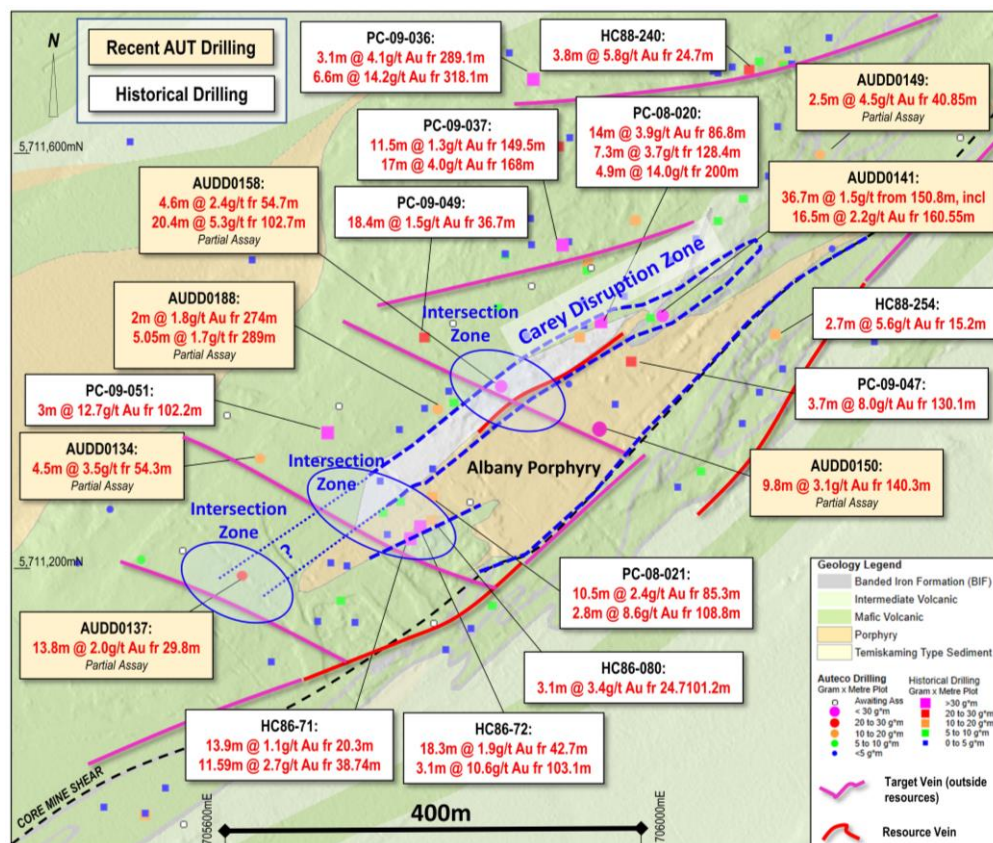
## CAREY DISCOVERY

AuTECO reported outstanding drill results from follow-up drilling at the recent Carey discovery, which continued to confirm the geological model for the area. Figure 7 shows a map of drill collar positions for the Albany-Carey area.

Drilling returned an intersection of 9.8m @ 3.1 g/t gold returned in hole AUDD150 from a vein array adjacent to the southern contact of the Albany Porphyry. This is in a similar structural setting to the discovery hole at Carey (Hole AUDD0158, 20.4m @ 5.3 g/t gold).

Final assays for hole AUDD0141 were returned, with a broad mineralised zone of 36.7m @ 1.5 g/t gold from 150.8m, including a zone of 16.5m @ 2.2 g/t gold.

Further drilling is underway with additional results expected during the December quarter.



**Figure 7:** Drilling results for the Albany-Carey area. AuTECO drill results are highlighted in yellow boxes.





## NEAR-MINE EXPLORATION

Drilling in the near-mine area continued to deliver high grade results outside of Pickle Crow's 1.7 Moz Resource.

AuTECO discovered a new zone of alteration-hosted mineralisation in banded iron north of the Shaft 3 area. Assays from the first hole into the target returned intersections of 10.5m @ 3.6 g/t from 126 metres and 8.5m @ 1.4 g/t gold from 111m in hole AUDD0140.

Drilling at shaft 1 confirmed the crown pillar between the upper level and surface remains intact, with an intersection of 3.3m @ 15.9 g/t gold. This pillar is also not included in the 1.7 Moz Resource.

## FORWARD WORK PLAN

AuTECO intends to continue with a dual-tracked approach to drilling for the remainder of 2021, with a combination of extensional in-mine Resource growth drilling and regional exploration.

It is anticipated that regional exploration will commence in late October, with ~15,000m allocated to test targets on the 500sqkm of regional tenure. A fifth rig is due soon to progress our regional ambitions.

A Resource update is scheduled for completion as at 31 December 2021.

## CORPORATE

### Pickle Crow Earn-In

Auteco's Stage 2 expenditure requirement of the earn-in agreement between Auteco and First Mining Gold (TSX:FF) was satisfied during the quarter, with Auteco to move to 70% equity ownership of the Pickle Crow project.

Auteco can elect to acquire a further 10% interest by paying C\$3M to First Mining Gold at any time.

### Limestone Well Acquisition

The company executed a binding term sheet with Mithril Resources (ASX:MTH) for the acquisition of the Limestone Well Vanadium-Titanium project for a cash consideration of A\$500k. The existing joint venture, in which AuTECO was obligated to spend A\$2.5M to earn 80% of the project, will be dissolved on completion of the agreement.

### Financial Information

Auteco's cash position as at 30 September 2021 was \$16.4M. Refer to Appendix 5B report provided separately for principal movements in consolidated cash for the quarter.

Information as disclosed in the Cash Flow Report:

- Net cash used in exploration activities capitalised totalled \$3.7M;
- There were no mining production and development activities during the quarter; and
- Payments to related parties of the Company and their associates for Executive and Non-executive Directors fees, including (where applicable) superannuation totalled \$174k.



## Health & Safety

COVID-19 prevention practices remained in place at Pickle Crow, which has recorded zero cases to date.

The Pickle Crow gold Project 12-month rolling average Lost Time Injury Frequency Rate (LTIFR) as of 30 September 2021 remains at zero (0.0). There were no reportable incidents recorded during the quarter.

For and on behalf of the Board.

A handwritten signature in black ink, appearing to read "R. Shorrocks".

**Mr Ray Shorrocks**  
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## ABOUT AUTECO MINERALS

Auteco Minerals Ltd (ASX: AUT) is an emerging mineral exploration company focused on advancing high-grade gold resources at the Pickle Crow Gold Project in the world-class Uchi sub-province of Ontario, Canada.

The Pickle Crow Gold Project currently hosts a JORC 2012 Mineral Resource of 1.7 Moz at 8.1 g/t gold, with a 50,000m drilling program underway to expedite Resource growth.

Pickle Crow is one of Canada's highest-grade gold mines – historically producing 1.5 Moz at 16 g/t gold.

The Company also has a joint venture on the Limestone Well Vanadium-Titanium Project in Western Australia.

For further information regarding Auteco Minerals Ltd please visit the ASX platform (ASX:AUT) or the Company's website <https://www.autecominerals.com>





## COMPETENT PERSONS STATEMENT

Certain Exploration Results referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in the Company's announcements of 28/01/2020, 26/03/2020, 29/06/2020, 01/09/2020, 11/11/2020, 19/01/2021, 7/04/2021, 16/06/2021, 15/07/2021, 2/8/2021 and 5/10/2021. Auteco confirms that it is not aware of any new information or data that materially affects the information included in the original announcements. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

## NOTE

As announced on 15 July 2021, "Resource increases 71% to 1.7 Moz", Auteco confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the estimates in the original announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

## DISCLAIMER

References to previous ASX announcements should be read in conjunction with this release.

## FORWARD LOOKING INFORMATION

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance or achievements expressed or implied in these forward-looking statements will be achieved.



## APPENDIX 1

### Summary of Mining Tenements held at the end of September 2021 Quarter

#### Auteco Minerals Ltd

##### Western Australia

PROJECT	TENEMENT NO.	STATUS	INTEREST	DETAILS	TENURE HOLDER
Limestone Well	E20/846	Granted	0%	Earning up to 80%	Mithril Resources Ltd
Limestone Well	E57/1069	Granted	0%	Earning up to 80%	Mithril Resources Ltd

#### Monax Alliance Pty Ltd

##### South Australia

PROJECT	TENEMENT NO.	STATUS	INTEREST	TENURE HOLDER
Kulitjara	ELA 2013/168	Application	100%	Monax Alliance Pty Ltd
Anmuryinna	ELA 2013/169	Application	100%	Monax Alliance Pty Ltd
Poole Hill	ELA 2013/170	Application	100%	Monax Alliance Pty Ltd

#### Revel Resources (JV Project) Ltd

##### Ontario, Canada - Pickle Crow Project (interest 100%)

TENEMENT NO.			
571490	574657 to 574669	625906 to 625907	627834 to 627999
571493	574673	625911	628001
571498	574788	625914 to 625917	628201 to 628202
571500	574842 to 574845	625920	628215
571503	574847 to 574863	625922 to 625936	628220
571506	625862 to 625864	625971	628229
571508	625867	626339 to 626465	628231
571511 to 571512	625872 to 625875	626492 to 626514	628233 to 628234
571515 to 571516	625878 to 625879	626566	628236 to 628284
571518	625881 to 625882	626568	628292 to 628293
571520 to 571523	625884	626570 to 626571	628303
571526	625888	626574	629659
571528	625893	626579	
571531 to 571532	625897 to 625898	626595	
574646 to 574647	625901 to 625903	626598 to 626615	





## Revel Resources Ltd

Ontario, Canada

PROJECT	TENEMENT NO.	STATUS	INTEREST	TENURE HOLDER
Trappers Cabin	604520 to 605119 605437 to 605480	Granted	100%	Revel Resources Ltd
Gold Thrust	605481 to 605784	Granted	100%	Revel Resources Ltd

## Revel Resources (JV Project) Ltd

Ontario, Canada

Pickle Crow Project: Auteco has entered into a binding term sheet agreement to acquire up to 80% of the Pickle Crow Gold Project through PC Gold Inc, which is a wholly owned subsidiary of First Mining Ltd. For further details refer to ASX announcements dated 28 January 2020 and 17 February 2020.

### TENEMENT NO.

102631	117335	125075	152998	169672	173853
102632	117935	125076	153006 to 153009	169674	173854
102636	117936	125145	153012	169675	173875
102637	117942	125147	153013	169709 to 169711	182415
102655	117947	125150	153037	170264	182433
102656	117948	125151	153039	170269	182434
102688	117969	125176	153040	170280	182438
102716	117970	125177	153068	170281	182440
102717	117977	125772	153615	170302 to 170304	182468
102720	117998	125797	153617	170362	182472
102773	117999	125837	153633	170363	182473
102796	118002	125856	153740	170889	183017
102797	118032	127040	153741	170936	183069
102827	118094	127041	153759	170957	183090 to 183093
102882	118095	127444	154984	171607	183115
102979	118115	135139	154985	171632	183118
103184	118121	137058 to 137060	155002	171633	188411
103203	118227	137199	155022	171655	188414
112269	118288	137200	157233	171905	188415
112270	124493 to 124496	137848	157234	173067	188422 to 188446
117286	124519	143310	161424	173068	188502
117311	124522	147879	169618	173091	188519
117314	124523	151198	169638	173136	188547
117315	125042	152985	169639	173138	189122
117334	125043	152991 to 152993	169646	173544	189170



189214	218448	266203	287122	322361	571385 to 571496
189695	218449	266205	287631	322387	571497 to 571541
189900	218450	266847	292388	322388	571543 to 571574
189903	218470	266850	292389	322949	571576 to 571592
189922	218471	267574	292410	322950	572071 to 572089
189923	218480	272992	292411	322951	572133 to 572166
196962	218481	273007	292412	323594	572168 to 572182
196963	219051 to 219055	273011	292416	323613 to 323616	572215 to 572264
196967 to 196969	219145 to 219147	273012	292417	323620	572380 to 572428
196984 to 196986	219166	273017	292431	323640	572561 to 572606
202396	219167	273572	292453	324716	572608
203622	220349	273618	292454	325337	572609
207336	220350	273619	292455	325338	572686 to 572735
207590	220351	273620	293007	333761	574592 to 574691
207603	225800 to 225802	273642	293008	334628	574742 to 574791
207626	225804	273643	293009	334629	574842 to 574863
207649	225818	273644	293032	335092	PA 185 (PA 2061)
207652 to 207655	225819	273663	293035	335442	PA 186 (PA 2062 &
207657	225833 to 225835	273664	293058	335443	PA 187 (PA2063)
207720	226401	274255	293547	335446	PA 188 (PA 2064)
208244	226403	274303	293548	335468	PA 189 (PA 2065)
208316	227038	274325	293675	344008	PA 199 (PA 2067)
208340	227086	275021	293710	344010	PA 200 (PA 2068)
208385	227087	275022	294406	344012	PA 201 (PA 2066)
208401	227106	275031	294432	344013	PA 2011
208405	227793	275087	294433	344014	PA 202 (PA 2069)
208406	227821	275551	305805	344029	PA 2062A)
208936	227822	276008	312407	344030	PA 2071e (PA 2071
208938	238344	285057 to 285060	312408	344031	& PA 2072)
209208	238522	285069	312492	344580 to 344584	PA 2133
209914	247646	285076	321608	344633	PA 2139
209915	247647	285088 to 285091	321614	344637	PA 2140
210048	249298	285629	321616 to 321619	344655	PA 2141
215596	257912	285634	321622	344659	PA 2185
217803	265530	285635	321636	344681	PA 2586
217811	265531	285652	321667	344683	PA 63
217812	265581	285657	321669	344745	PA 637
218333	265585	285708	321673	345282	PA 638
218335	265601	285709	321683	345328	PA 639
218362 to 218365	265604	285732	321699	345347	PA 64
218368	265623	285734	321700	345348	PA 640
218369	265624	285759	322281	562622	PA 644
218381	266182	286396	322284	562636	PA 646
218392	266185	286415	322303	562648 to 562779	PA 65
218393	266188	287100	322304	562781	PA 66
					PA 665 (PA 2073)





PA 666 (PA 2076)	PA 686	PA 706	PA 740	PA 756	PA 778
PA 667 (PA 2077)	PA 69	PA 707	PA 741	PA 757	PA 779
PA 668 (PA 2075)	PA 696	PA 725	PA 742	PA 758	PA 780
PA 669 (PA 2078)	PA 697	PA 726	PA 743	PA 759	PA 781
PA 67	PA 698	PA 727	PA 744	PA 760	PA 90 (PA 2161)
PA 670 (PA 2070)	PA 699	PA 728	PA 745	PA 761	PA 91 (PA 2157)
PA 671 (PA 2074)	PA 70	PA 729	PA 746	PA 762	PA 92 (PA 2158)
PA 675	PA 700	PA 730	PA 747	PA 763	PA 93 (PA 2159)
PA 676	PA 701	PA 735	PA 748	PA 773	PA 94 (PA 2162)
PA 677	PA 702	PA 736	PA 749	PA 774	PA 95 (PA 2163)
PA 68	PA 703	PA 737	PA 750	PA 775	PA 96 (PA 2160)
PA 684	PA 704	PA 738	PA 751	PA 776	
PA 685	PA 705	PA 739	PA 755	PA 777	

**Mining Tenements and Beneficial Interests acquired during the September 2021 Quarter:**

Nil.

**Mining Tenements and Beneficial Interests disposed of during the September 2021 Quarter:**

Nil

