

# ASX ANNOUNCEMENT

# Pickle Crow Gold Project, Canada

# Sampling returns results up to 569g/t just 6km from 2.2Moz Resource

Bonanza results highlight potential for a large regional inventory, with numerous targets to be drilled in coming months; Resource update set for early 2023

# **KEY POINTS**

• Exceptional exploration results continue to demonstrate the immense potential to expand the 2.23Moz at 7.8 g/t Inferred gold Resource at Pickle Crow

## **DISTRICT-SCALE POTENTIAL**

- Sampling of outcropping veins at the Metcalf prospect returned highly significant results, including assays of 569.0g/t, 35.5g/t, 27.4g/t and 9.0g/t gold.
- The Metcalf prospect is located on the Tarp Lake shear ~6km north-west of the current 2.23Moz Resource
- Drilling to start this quarter at Metcalf and other regional targets

## **NEAR-MINE DRILLING**

- Drilling at Pickle Crow continues to yield strong results that point to significant growth in the 2.23Moz Resource. Key results include:
  - o 0.4m @ 91.0 g/t gold from 149.0m AUDD0319 (Vein Hosted)
  - o 0.4m @ 32.2 g/t gold from 30.4m AUDD0327 (Vein Hosted)
  - o 0.5m @ 23.6 g/t gold from 784.3m AUDD0290 (Vein Hosted)
  - o 1.5m @ 20.2 g/t gold from 488.0m AUDD0298 (BIF Hosted)
  - o 1.8m @ 8.3 g/t gold from 50.7m AUDD0330 (Vein Hosted)
  - o 2.2m @ 5.5 g/t gold from 371.0m AUDD0294 (BIF Hosted)
  - o 5.0m @ 1.9 g/t gold from 294.0m AUDD0286 (BIF Hosted)
  - 8.0m @ 1.8 g/t gold from 245.0m AUDD0281 (BIF Hosted)
- Step-out drilling is in progress at the Tyson veins with results expected imminently
- AuTECO remains well funded for its exploration programs, with A\$17.4M in cash and receivables at 30 June 2022

AuTECO Minerals Ltd (AUT:ASX) is pleased to report exceptional sampling results just 6km form the 2.23Moz Resource at the Pickle Crow gold project in Ontario, Canada.

The results are considered particularly important because they demonstrate the scope to increase the Resource based on regional discoveries as well as ongoing near-mine exploration.

#### ASX: AUT

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Principal and Registered Office: Ground Floor 24 Outram Street West Perth WA 6005 Ray Shorrocks - Executive ChairmanMichael Naylor - Non-Executive DirectorStephen Parsons - Non-Executive DirectorDarren Cooke - Chief Executive OfficerWilliam Nguyen - CFO & Joint Company SecretaryMaddison Cramer - Joint Company Secretary



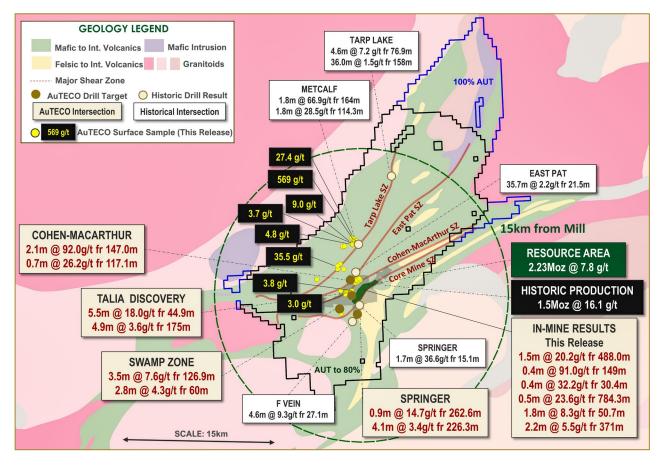
A 50,000-metre drill campaign is in progress and anticipated to conclude in early 2023. AuTECO intends to continue the dual focus on both in-mine Resource expansion at Pickle Crow and regional discovery that will provide the next generation of Resource growth for the company.

## AuTECO Chief Executive Officer Darren Cooke said:

"These results provide strong evidence to support our view that we have an entire mineral district, which includes the Pickle Crow deposit.

"We will drill these outstanding regional targets over coming months as part of our strategy to continue growing the inventory, with a Resource update set for early 2023.

"AuTECO is fully funded to continue the exploration and growth campaign with two rigs planned to drill for the remainder of 2022".



Summary map showing AuTECO tenure with recent and historical drilling intersections relative to the current Resource and the historic Pickle Crow mine. Also noted are the location of surface samples reported in this release. Please refer to ASX release dated 26 March 2020 for further details on historical intersections.







## **Details of Latest Results:**

This release contains results from both near-mine and regional exploration activities. All work conducted has been outside of the current 2.23Moz at 7.8 g/t Inferred gold Resource (see ASX announcement dated 15 February 2022 for details).

AuTECO manages ~500km<sup>2</sup> of tenure in the Pickle Lake district. The company continues to pursue a dual track strategy of advancing both the near-mine Resource growth and regional exploration concurrently.

#### **Regional Exploration Results**

Regional exploration activities in recent months have focused on regional mapping, sampling and target generation. Due to climatic conditions and snow covering the surface, the field mapping season is between April and October.

#### **Summer Seasonal Field Activities**

Extensive mapping and sampling campaigns have been undertaken on the 500km<sup>2</sup> of exploration tenure, with a focus on the Tarp Lake and Cohen MacArthur shear zones. Numerous previously unknown veins structures have been identified. Rock chip sampling of veins has yielded highly anomalous results (Figure 1).

The Metcalf target, located on the Tarp Lake Shear returned rock chip results including 569.0g/t, 27.4g/t and 9.0g/t gold. This surface vein expression confirms the presence of a significant vein system, with historical drill intersections including 1.8m @ 66.9g/t and 1.8m @ 28.5g/t gold.

Approximately 3km south of Metcalf on the Tarp Lake shear, a rock chip sample of 35.5g/t gold was collected from an outcropping vein. These results confirm that the Tarp Lake Shear is a major regional gold bearing structure with strong potential for a significant discovery.

Other areas mapped and sampled include Cohen MacArthur target, with anomalous rock chips of up to 3.8g/t gold returned.

Preparations are in progress to drill test both the Metcalf, Tarp Lake and Cohen MacArthur propsects during the winter drill campaign.

#### **Geophysical Data Acquisition**

Lease wide collection of magnetic data is in progress over the entire 500km<sup>2</sup> of exploration tenure under management by AuTECO. Helicopter based acquisition is being flown conducted at 100 metre line spacing over the regional areas and 50 metre spacing near the main Pickle Crow deposit. Although ~60% complete, preliminary imaging shows a marked improvement in comparison to the existing data set (Figure 2).





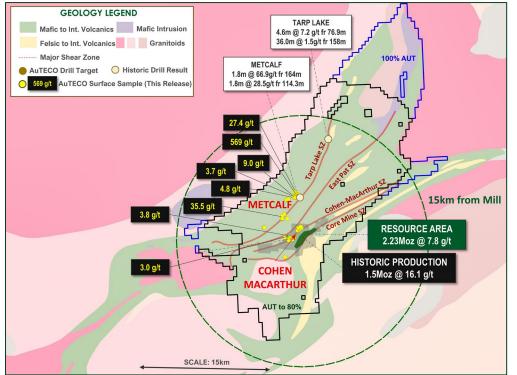


Figure 1: Map showing the location and key results of rock chip samples collected in August September 2022

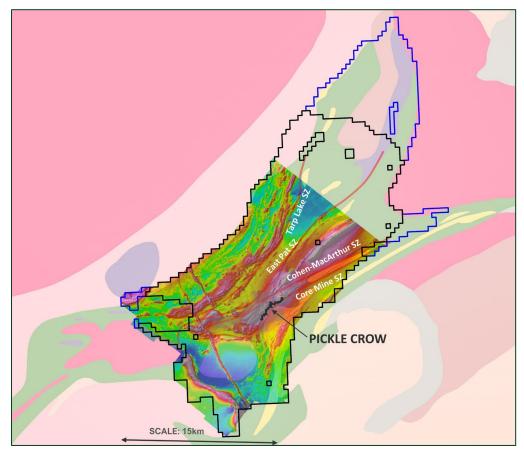


Figure 2: Progress to date of the lease-wide heli mag geophysical acquisition (in progress). Results to date show numerous geological targets in addition to refinement of the geological interpretation





#### **Near-Mine Results**

Drilling has continued to focus on Resource growth potential in the historic Shaft 1 and Shaft 3 areas of Pickle Crow (Figure 3).

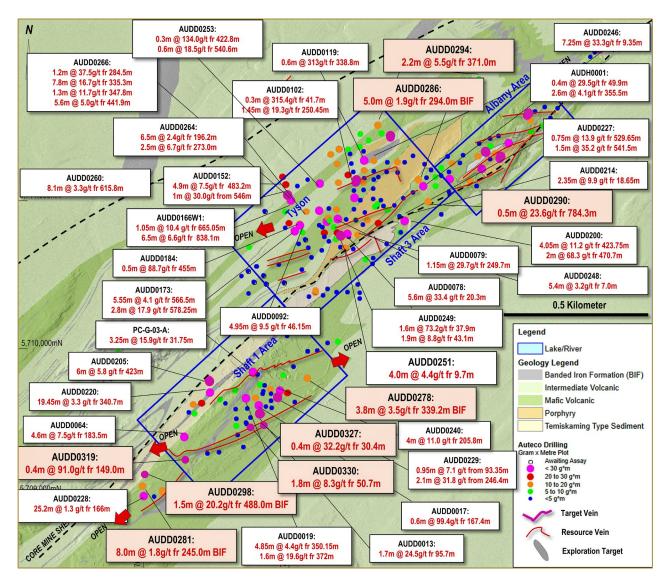


Figure 3: Summary map showing AuTECO near mine drilling intersections. Please note that results from this release are highlighted in beige.

Recent drilling focused on extensions to the Vein 5 vein structure. Historically, more than 200,000 ounces of gold was extracted from the high-grade vein, with the continuous structure averaging approximately 0.5 metres in width. The recent AuTECO drilling has successfully demonstrated the vein continues along strike beyond the extents of historical mining. Significant intersections include:

- o 0.4m @ 91.0 g/t gold from 149.0m AUDD0319
- o 0.4m @ 32.2 g/t gold from 30.4m AUDD0327
- o 1.8m @ 8.3 g/t gold from 50.7m AUDD0330



Near-mine exploration drilling has been conducted to test for mineralisation hosted in banded iron formation (BIF). Mineralisation within the BIF occurs in veins surrounded by a gold-bearing sulphide halo. The widths observed in historical intersections indicate the potential for bulk mining extraction within BIF style mineralisation. Recent BIF-hosted results include:

- **1.5m @ 20.2 g/t gold from 488.0m** AUDD0298 (BIF Hosted)
- 2.2m @ 5.5 g/t gold from 371.0m AUDD0294 (BIF Hosted)
- o 3.8m @ 3.5 g/t gold from 339.2m AUDD0278 (BIF Hosted)
- o 5.0m @ 1.9 g/t gold from 294.0m AUDD0286 (BIF Hosted)
- 8.0m @ 1.8 g/t gold from 245.0m AUDD0281 (BIF Hosted)

# FORWARD WORK PLAN

The company intends to continue with a dual-tracked approach to drilling for the remainder of 2022, with a combination of extensional in-mine Resource growth drilling and regional exploration. AuTECO is in the midst of 50,000m drill campaign, of which ~20,000m is planned for early stage targets outside of the current 2.23Moz Resource.

In order to preserve cash, the number of drill rigs has been reduced to two.

As site accessibility improves in winter, the exploration focus from November 2022 through March 2023 will shift to regional exploration in addition to near mine targets that are inaccessable during summer, such as Tyson.

An updated Resource estimate remains on track for delivery in early 2023.

For and on behalf of the Board.

**Mr Ray Shorrocks** Executive Chairman Auteco Minerals Ltd Phone: +61 8 9220 9030

Media: Paul Armstrong Read Corporate +61 8 9388 1474

## 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 Inferred Mineral Resource of 2.23 Moz at 7.8g/t gold, with a 50,000m drilling program underway to expedite 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 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, 5/10/2021, 2/12/2021, 18/1/2022, 15/2/2022, 3/5/2022 and 23/6/2022. 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.

The information in this announcement that relates to new Exploration Results is based on and fairly represents information and supporting information compiled by Mr Darren Cooke, who is a Member of the Australasian Institute of Geoscientists. Mr Cooke is an employee of the Company and has sufficient experience in the style of mineralisation and type of deposit under consideration and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cooke holds securities in Auteco Minerals Limited and consents to the inclusion of all technical statements based on his information in the form and context in which it appears.

#### NOTE

The Company's Mineral Resource estimate referred to in this announcement was first reported in accordance with ASX Listing Rule 5.8 in the Company's announcement on 15 February 2022, "Resource increases by 500,000oz to 2.23Moz at 7.8 g/t ". 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.

Mineralisation Domain	Lower Cut-off	Tonnes (Mt)	Gold Grade (g/t)	Gold (Million oz)	Variance to 30 June 2021 Resource
Quartz Lodes	3.5g/t	6.4	9.3	1.92	+0.45Moz
Alteration Hosted (BIF)	2.0g/t	2.5	3.8	0.30	+0.06Moz
TOTAL		8.9	7.8	2.23	+0.51Moz (+30%)

## 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 A: DRILLING RESULTS**

## **TABLE 1: Significant Intercept Table – Auteco Drilling**

Cut-off grade of 0.5g/t Gold allowing for 1m internal dilution (NSI – No significant Intercept). All cords in UTM NAD 83 z15

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	То (m)	Width (m)	Assay g/t Au	Comment
AUDD0274	707,099	5,712,383	348	180	55	279		No sig a	issays		
411000375	702.450	F 709 06F	252	190	60	348	174.00	175.05	1.05	1.46	
AUDD0275	703,459	5,708,965	353	180	60	548	333.30	334.00	0.70	1.10	
AUDD0276	706,178	5,711,456	346	180	65	237	30.80	31.25	0.45	2.44	
AUDD0276	700,178	5,711,450	540	160	05	257	202.95	203.35	0.40	14.60	
AUDD0277	704,452	5,709,778	349	300	55	228		No sig a	issays		
AUDD0278	704,507	5,709,771	348	300	56	354	339.20	343.00	3.80	3.49	
AUDDU278	704,307	5,705,771	540	500	50	554	345.00	349.30	4.30	1.18	
AUDD0279	704,550	5,709,750	349	300	63	579	358.75	359.30	0.55	5.66	
AUDDUZ75	704,550	5,705,750	545	500	05	575	527.05	527.45	0.40	2.16	
							253.10	254.10	1.00	1.04	
AUDD0280	703,454	5,709,025	350	180	55	348	258.10	259.10	1.00	1.33	
AUDDUZUU	703,434	5,705,025	550	100	55	540	266.70	267.10	0.40	1.36	
							273.40	273.85	0.45	1.33	
AUDD0281	703,508	5,709,062	351	180	-60	399	245.00	253.00	8.00	1.82	
AUDD0282	705,489	5,711,249	354	115	73	456	60.25	61.40	1.15	0.52	
AUDD0283	704,508	5,709,691	348	300	67	153		No sig a	issays		
AUDD0284	704,506	5,709,715	348	300	70	582		No sig a	issays		
AUDD0285	703,570	5,709,042	350	180	55	363	15.20	15.60	0.40	8.49	
							110.20	110.60	0.40	1.21	
							118.00	119.80	1.80	2.49	
							159.00	163.90	4.90	1.34	
AUDD0286	705,433	5,711,199	352	180	55	498	170.70	171.10	0.40	1.04	
AUDD0200	103,435	3,711,139	332	100		470	276.85	277.30	0.45	1.40	
							281.10	284.00	2.90	1.12	
							288.65	289.50	0.85	3.21	
							294.00	299.00	5.00	1.91	





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	To (m)	Width (m)	Assay g/t Au	Comment		
							303.00	306.00	3.00	1.63			
							476.70	477.10	0.40	1.39			
AUDD0287	704,450	5,709,740	349	300	68	450	233.00	234.00	1.00	2.33			
							210.10	210.85	0.75	1.49			
	705 267	F 744 4F7	244	400		F 40	460.85	461.65	0.80	1.07			
AUDD0288	705,367	5,711,157	344	180	55	540	471.70	472.15	0.45	0.70			
							487.95	488.35	0.40	6.51			
							219.75	221.05	1.30	5.29			
AUDD0289	704,448	5,709,738	349	300	65	321	287.80	288.20	0.40	5.70			
							318.70	319.15	0.45	2.83			
AUDD0289 A	704,448	5,709,738	349	300	65	24		No sig a	assays				
							133.55	136.10	2.55	1.58			
							155.90	159.05	3.15	1.00			
							167.00	169.00	2.00	1.53			
							194.00	195.80	1.80	1.15			
							272.55	274.20	1.65	2.28			
							396.60	397.80	1.20	0.82			
							400.30	400.95	0.65	1.76			
							524.15	525.00	0.85	4.00			
AUDD0290	705,510	5,711,055	348	250	73	870	548.95	549.40	0.45	1.75			
							619.30	620.15	0.85	1.14			
							645.40	649.75	4.35	1.36			
							672.70	673.10	0.40	1.12			
							675.95	677.25	1.30	1.34			
							784.30	784.80	0.50	23.60			
							802.65	806.00	3.35	1.26			
							834.70	835.10	0.40	1.18			
							839.25	840.00	0.75	1.99			
							181.40	181.85	0.45	0.84			
							219.60	223.40	3.80	2.04			
AUDD0290	705,510	5,711,055	348	250	74	253	242.00	244.10	2.10	2.27			
Α	705,510	5,711,055	540	250	/4	255	126.35	126.75	0.40	0.69			
							130.50	130.90	0.40	1.27			
							170.45	170.90	0.45	0.54			
AUDD0291	705,236	5,711,063	341	180	55	87	43.00	44.95	1.95	1.91			
							279.25	281.40	2.15	1.12			
AUDD0292	705,236	5,711,063	341	180	60	516	307.45	307.90	0.45	1.44			
~~~~~~	,03,230	5,7 11,005	341	100	60	60	60	210	311.50	311.90	0.40	1.24	
							429.80	432.00	2.20	1.47			





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	To (m)	Width (m)	Assay g/t Au	Comment
							433.90	434.65	0.75	0.69	
							457.95	458.50	0.55	1.20	
							492.70	494.70	2.00	3.31	
							271.90	272.85	0.95	0.71	
							275.20	276.45	1.25	1.63	
							279.75	283.15	3.40	0.61	
							282.15	283.15	1.00	1.01	
							286.90	287.75	0.85	1.34	
AUDD0293	705,735	5,711,556	346	135	-65	639	295.20	295.60	0.40	1.65	Partial Assay
							351.50	352.50	1.00	3.03	, issuy
							356.80	357.20	0.40	1.16	
							390.30	390.70	0.40	1.02	
							497.80	498.60	0.80	1.70	
							539.25	540.25	1.00	1.16	
							45.00	46.00	1.00	1.70	
							347.55	348.00	0.45	0.53	
							350.50	351.50	1.00	1.41	
AUDD0294	705,002	5,711,510	336	160	-82	777	355.55	355.95	0.40	5.48	Partial Assay
							371.00	373.20	2.20	5.54	, 1000 y
							534.05	534.90	0.85	0.80	
							649.45	650.50	1.05	2.02	
AUDD0295	705,735	5,711,556	346	135	-73	401	54.00	55.15	1.15	1.17	
							172.80	173.20	0.40	4.39	
							284.10	285.00	0.90	1.35	
AUDD0296	703,510	5,709,160	364	150	-60	468	319.90	320.90	1.00	1.60	
							323.40	324.20	0.80	2.17	
							406.75	407.15	0.40	1.28	
AUDD0297	705,735	5,711,556	346	320	-50	285	50.25	51.00	1.75	0.63	
AUDDU297	/05,/35	3,711,330	540	520	-30	265	236.80	237.20	0.40	1.66	
							287.80	288.20	0.40	5.70	
							297.05	297.45	0.40	0.55	
							318.70	319.15	0.45	2.83	
						540	372.45	373.25	0.80	3.57	
AUDD0298	703,510	5,709,160	364	150	-71		377.10	377.55	0.45	1.92	
							480.45	481.70	1.25	1.58	
							488.00	489.50	1.50	20.20	
						inc:	488.00	488.45	0.45	48.10	
						inc:	488.45	489.00	0.55	11.90	
AUDD0299	705,998	5,711,690	347	120	75	576	310.00	311.00	1.00	1.68	





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	То (m)	Width (m)	Assay g/t Au	Comment
							325.00	326.00	1.00	0.52	
							343.85	344.80	0.95	0.73	
							383.70	384.50	0.80	1.08	
							429.10	429.68	0.58	0.68	
							439.70	442.55	2.85	0.48	
							498.90	499.60	0.70	3.83	
							649.45	650.50	1.05	2.02	
AUDD0299 A	705,998	5,711,690	347	120	75	81		No sig a	issays		
AUDD0299 B	705,998	5,711,690	347	120	75	93		No sig a	issays		
							92.38	92.78	0.40	1.00	
							108.90	109.42	0.52	1.46	
							109.88	110.28	0.40	1.54	
							202.30	202.95	0.65	1.89	
							252.38	253.35	0.97	1.30	
AUDD0300	705,998	5,711,690	347	120	60	450	283.85	284.35	0.50	1.07	
							291.90	292.35	0.45	1.44	
							310.30	310.70	0.40	1.03	
							329.55	329.95	0.40	1.96	
							341.80	342.20	0.40	1.06	
							410.05	411.25	1.20	2.15	
AUDD0301	706,049	5,711,734	349	110	69	363	126.55	126.95	0.40	3.38	
		-, , -					344.20	346.40	2.20	1.08	
							58.75	59.20	0.45	1.38	
AUDD0302	706,049	5,711,734	349	128	55	438	195.00	196.45	1.45	1.36	
		-, , -		-			233.90	234.90	1.00	1.13	
							322.80	323.20	0.40	2.16	
							234.40	234.80	0.40	2.90	
AUDD0303	703,985	5,709,669	341	160	55	387	255.80	258.00	2.20	1.78	
							329.50	330.10	0.60	4.09	
							238.00	240.00	2.00	1.49	
AUDD0304	705,998	5,711,690	350	150	-65	465	242.55	243.10	0.55	1.66	
							351.00	352.00	1.00	2.08	
							441.00	443.00	2.00	0.96	
AUDD0305	704,440	5,710,550	351	160	-65	405	70.10	71.10	1.00	0.73	
	, -	, -,					284.90	286.05	1.15	2.58	
						426	174.75	175.90	1.15	0.79	
AUDD0306	705,998	5,711,690	350	150	-52	inc:	174.75	175.30	0.55	0.93	
						426	197.00	198.00	1.00	0.75	





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	To (m)	Width (m)	Assay g/t Au	Comment
							221.40	221.80	0.40	0.52	
							225.15	225.55	0.40	2.83	
							245.05	245.45	0.40	1.91	
							293.40	294.80	1.40	3.21	
						426	304.45	307.90	3.45	2.11	
						inc:	305.90	306.40	0.50	12.70	
						426	371.90	372.60	0.70	0.60	
							37.10	38.60	1.50	2.35	
AUDD0307	704,436	5,710,634	343	160	-65	450	782.60	183.60	1.00	1.09	
							299.95	301.00	1.05	2.76	
							19.50	26.43	6.93	1.68	
							36.90	37.48	0.58	1.83	
							101.52	104.13	2.61	1.27	
							136.33	138.08	1.75	3.21	
							143.80	144.55	0.75	1.02	
AUDD0308	706,152	5,711,627	355	190	-50	296	146.57	147.24	0.67	1.64	Partial Assay
							150.87	151.85	0.98	1.10	71350y
							203.95	206.00	2.05	1.45	
							208.10	209.00	0.90	1.04	
							224.36	224.90	0.54	5.76	
							259.00	260.05	1.05	3.24	
411000200	704.026	F 700 422	251	160	50	105	39.45	39.85	0.40	1.18	
AUDD0309	704,036	5,709,422	351	160	-50	105	49.85	50.35	0.50	2.10	
AUDD0310	705,888	5,711,695	343	176	-69	624	37.15	38.65	1.50	0.77	Partial Assay
							63.40	66.35	2.95	0.98	
AUDD0311	704,625	5,711,306	338	160	-58	895	164.45	165.15	0.70	3.23	Partial Assay
AUDD0311 A	704,625	5,711,306	338	160	-58	204	45.70	46.20	1.30	1.09	
AUDD0312	704,025	5,709,450	351	160	-50	141		ŀ	Awaiting As	say	
AUDD0313	704,055	5,709,456	351	160	-55	135		ŀ	Awaiting As	say	
AUDD0314	704,066	5,709,426	351	160	-56	102		ŀ	Awaiting As	say	
AUDD0315	703,973	5,709,439	351	160	-56	171		ŀ	Awaiting As	say	
AUDD0316	703,982	5,709,412	350	160	-56	144		ŀ	Awaiting As	say	
AUDD0317	704,016	5,709,419	351	160	-56	126	Awaiting Assay				
AUDD0318	704,043	5,709,537	352	160	-56	246		ŀ	Awaiting As	say	
AUDD0319	704,012	5,709,524	352	160	-56	171	149.00	149.40	0.40	91.00	Partial Assay
AUDD0320	703,995	5,709,458	351	160	-56	171	147.70	148.65	0.95	2.42	Partial Assay
AUDD0321	704,085	5,709,464	351	160	-56	171		ļ	Awaiting As	say	· ·





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	To (m)	Width (m)	Assay g/t Au	Comment
AUDD0322	704,095	5,709,438	351	160	-56	129		ŀ	Awaiting As	say	
AUDD0323	704,120	5,709,460	351	160	-61	150		ļ	Awaiting As	say	
AUDD0324	704,087	5,709,416	351	160	-56	120		ļ	Awaiting As	say	
AUDD0325	704,177	5,709,476	351	160	-46	129		ŀ	Awaiting As	say	
AUDD0326	704,208	5,709,467	351	160	-46	60		ŀ	Awaiting As	say	
AUDD0327	704,321	5,709,526	350	160	-56	60	30.35	30.75	0.40	32.20	Partial Assay
AUDD0328	704,341	5,709,562	350	160	-56	102	67.80	68.60	0.80	5.20	Partial Assay
AUDD0329	704,349	5,709,541	350	160	-56	60		4	Awaiting As	say	
AUDD0330	704,285	5,709,534	351	160	-56	105	50.70	52.45	1.75	8.26	Partial Assay
AUDD0331	704,312	5,709,551	351	160	-56	102		ŀ	Awaiting As	say	
AUDD0332	704,329	5,709,597	350	160	-56			A	Awaiting As	say	
AUDD0333	704,444	5,711,127	338	164	-75			ł	Awaiting As	say	
RVDD0039	703,197	5,709,147	355	150	50	180	139.70	140.30	0.60	3.94	
RVDD0040	703,114	5,709,129	363	150	50	147		No sig a	assays		
RVDD0042	703,356	5,709,311	349	190	55	231	76.40	77.00	0.60	1.04	Partial Assay
RVDD0044	703,418	5,709,479	350	190	-56	309		No sig a	assays		
RVDD0045	699,415	5,707,478	350	150	-45	150		No sig a	assays		
RVDD0046	703,418	5,709,479	350	140	-50	357		No sig a	assays	1	
RVDD0047	699,700	5,707,506	350	195	-45	174	93.05	94.00	0.95	2.89	
RVDD0048	700,080	5,707,470	350	205	-45	150		No sig a			
RVDD0049	700,315	5,707,400	350	205	-45	21		No sig a	assays		
RVDD0050	698,488	5,707,578	350	200	-45	156		No sig a	assays	1	
							160.70	161.10	0.40	0.52	
						279	211.00	211.40	0.40	2.22	
RVDD0051	703,247	5,708,486	354	180	-55		212.95	213.45	0.50	1.48	
						inc:	262.60	263.50	0.90	14.71	
							262.60	263.00	0.40	30.20	
RVDD0052	698,110	5,708,075	351	145	-50	207	53.00	57.00	4.00	1.05	
RVDD0053	698,110	5,708,075	351	205	-50	150	79.80	80.35	0.55	1.34	
RVDD0054	697,998	5,708,030	351	145	-50	264		No sig a			
RVDD0055	703,077	5,708,328	355	180	-55	297	152.10 276.40	153.10 277.40	1.00 1.00	1.28 1.27	
RVDD0056	697,998	5,708,030	351	205	-50	156		No sig a	assays		
		. ,					86.10	86.50	0.40	1.95	
							146.85	147.30	0.45	1.37	
RVDD0057	703,272	5,708,366	355	180	-55	231	152.60	153.05	0.45	1.13	
							182.90	183.30	0.40	1.49	





Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Drilled Length (m)	From (m)	To (m)	Width (m)	Assay g/t Au	Comment
RVDD0058	697,902	5,707,963	351	145	-50	267		No sig a	issays		
							51.75	52.30	0.55	1.47	
RVDD0059	702 227	F 700 474	350	180	-55	285	219.40	220.00	0.60	1.47	
KVDD0059	703,337	5,708,474	350	180	-22		226.30	230.35	4.05	3.44	
						inc:	229.95	230.35	0.40	21.00	
RVDD0060	697,902	5,707,963	351	195	-52	228		No sig a	assays		
RVDD0061	697,902	5,707,963	351	325	-50	162		No sig a	assays		
RVDD0062	699,910	5,707,380	350	205	55	159		No sig a	issays		
RVDD0063	699,930	5,707,340	350	0	50	225		No sig a	issays		
RVDD0064	700,100	5,707,510	350	205	-55	258		No sig a	assays		
RVDD0065	700,200	5,707,470	350	205	-55	171		No sig a	assays		
RVDD0066	700,329	5,707,430	350	250	-45	170		No sig a	assays		
RVDD0067	703,510	5,709,160	364	320	-55	191	No sig assays				
RVDD0068	700,550	5,707,400	350	205	-55	156		No sig a	assays		
							7.70	8.10	0.40	0.97	
RVDD0069	703,148	5,708,500	352	180	-52	375	35.60	36.10	0.50	0.53	
							104.55	105.05	0.50	1.00	
RVDD0070	702,270	5,708,070	350	180	-55	225		No sig a	assays		
RVDD0071	703,382	5,708,410	358	175	-55	197	68.75	69.15	0.40	1.68	
KVDD0071	703,382	5,708,410	330	175	-55	197	145.30	145.70	0.40	34.60	
RVDD0072	702,530	5,707,970	350	180	-50	258		No sig a	assays		
RVDD0073	703,391	5,708,510	359	175	-55	348	237.45	238.20	0.75	1.75	
RVDD0074	702,465	5,707,950	350	180	-55	240		No sig a	assays		
RVDD0075	702,465	5,707,950	350	240	-55	234	No sig assays				
RVDD0076	702,450	5,708,040	350	240	-55	238		No sig a	assays		
RVDD0077	702,720	5,708,390	350	160	-55	261					
RVDD0078	702,737	5,708,497	350	120	-55	351	No sig assays				

# **APPENDIX B: GEOCHEMICAL SAMPLING RESULTS**

 TABLE 2: Surface Rock Chip Sampling Results- Auteco Field Sampling

All coordinates are in the UTM NAD 83 z15 grid

Sample Number	Easting	Northing	Assay g/t Au	Prospect
1394501	702,435	5,708,039	0.001	Springer
1394502	702,435	5,708,039	0.001	Springer





Sample Number	Easting	Northing	Assay g/t	Prospect
	Lucing		Au	copeet
1394503	703,661	5,716,396	0.001	Tarp Lake Shear Zone
1394504	703,616	5,716,442	0.002	Tarp Lake Shear Zone
1394505	703,850	5,716,304	0.001	Tarp Lake Shear Zone
1394506	703,978	5,716,134	27.4	Tarp Lake Shear Zone
1394507	702,659	5,715,490	0.024	Tarp Lake Shear Zone
1394508	702,633	5,715,414	0.012	Tarp Lake Shear Zone
1394509	702,615	5,715,499	0.003	Tarp Lake Shear Zone
1394510	702,836	5,715,519	0.001	Tarp Lake Shear Zone
1394511	702,377	5,713,526	35.5	Tarp Lake Shear Zone
1394512	702,336	5,713,554	0.022	Tarp Lake Shear Zone
1394651	702,061	5,712,954	0.003	Tarp Lake Shear Zone
1394652	702,047	5,712,964	0.004	Tarp Lake Shear Zone
1394653	702,047	5,712,962	0.015	Tarp Lake Shear Zone
1394654	702,745	5,712,970	0.786	Tarp Lake Shear Zone
1394655	702,035	5,712,975	0.005	Tarp Lake Shear Zone
1394656	702,082	5,712,996	0.005	Tarp Lake Shear Zone
1394657	702,082	5,713,339	0.004	Tarp Lake Shear Zone
1394513	703,601	5,715,819	4.79	Tarp Lake Shear Zone
1394514	703,601	5,715,818	1.61	Tarp Lake Shear Zone
1394515	703,593	5,715,814	0.807	Tarp Lake Shear Zone
1394516	703,586	5,715,807	0.305	Tarp Lake Shear Zone
1394517	703,571	5,715,788	0.987	Tarp Lake Shear Zone
1394518	703,716	5,715,676	0.003	Tarp Lake Shear Zone
1394519	703,745	5,715,696	0.011	Tarp Lake Shear Zone
1394520	699,738	5,711,828	0.025	Tarp Lake Shear Zone
1394521	699,769	5,711,842	0.002	Tarp Lake Shear Zone
1394522	699,769	5,711,842	0.002	Tarp Lake Shear Zone
1394523	699,769	5,711,842	0.001	Tarp Lake Shear Zone
1341851	704,244	5,711,726	0.003	Cohen-MacArthur Shear Zone
1341852	704,244	5,711,723	0.092	Cohen-MacArthur Shear Zone
1341853	704,278	5,711,743	0.001	Cohen-MacArthur Shear Zone
1341854	704,260	5,711,747	0.002	Cohen-MacArthur Shear Zone
1341855	704,308	5,711,774	0.569	Cohen-MacArthur Shear Zone
1341856	704,251	5,711,719	0.005	Cohen-MacArthur Shear Zone
1341857	704,008	5,711,446	1.254	Cohen-MacArthur Shear Zone
1341858	704,053	5,711,461	0.004	Cohen-MacArthur Shear Zone
1341859	704,269	5,711,545	0.003	Cohen-MacArthur Shear Zone
1341860	704,266	5,711,662	0.001	Cohen-MacArthur Shear Zone
1341861	704,336	5,711,646	0.001	Cohen-MacArthur Shear Zone
1341862	703,091	5,710,546	0.002	Cohen-MacArthur Shear Zone
1341863	703,051	5,710,521	0.002	Cohen-MacArthur Shear Zone
1341864	702,985	5,710,412	0.002	Cohen-MacArthur Shear Zone





			Assay	
Sample Number	Easting	Northing	g/t	Prospect
		1	Au	
1341865	702,947	5,710,348	0.001	Cohen-MacArthur Shear Zone
1341866	702,899	5,710,206	0.001	Cohen-MacArthur Shear Zone
1395501	702,407	5,710,589	0.001	Central Patricia
1395502	703,400	5,710,319	0.004	Central Patricia
1395503	703,494	5,710,494	0.006	Cohen-MacArthur Shear Zone
1395504	703,495	5,710,494	0.002	Cohen-MacArthur Shear Zone
1394041	704,246	5,711,784	0.002	Cohen-MacArthur Shear Zone
1394042	704,193	5,711,810	0.002	Cohen-MacArthur Shear Zone
1394043	704,135	5,711,851	0.001	Cohen-MacArthur Shear Zone
1394044	704,201	5,711,768	0.001	Cohen-MacArthur Shear Zone
1394045	704,565	5,711,802	0.001	Cohen-MacArthur Shear Zone
1394046	704,438	5,711,945	0.683	Cohen-MacArthur Shear Zone
1394047	704,437	5,711,946	0.332	Cohen-MacArthur Shear Zone
1394048	703,531	5,710,528	3.03	Cohen-MacArthur Shear Zone
1394049	703,581	5,710,575	0.007	Cohen-MacArthur Shear Zone
1394050	703,618	5,710,586	3.768	Cohen-MacArthur Shear Zone
1394659	704,120	5,715,867	3.72	Tarp Lake Shear Zone
1394660	704,124	5,715,875	0.188	Tarp Lake Shear Zone
1394661	704,124	5,715,875	0.394	Tarp Lake Shear Zone
1394662	704,135	5,715,898	0.064	Tarp Lake Shear Zone
1394663	704,136	5,715,898	9	Tarp Lake Shear Zone
1394664	704,137	5,715,896	569	Tarp Lake Shear Zone
1394665	704,146	5,715,911	0.142	Tarp Lake Shear Zone
1394666	704,143	5,715,910	0.637	Tarp Lake Shear Zone
1394667	704,151	5,715,926	0.044	Tarp Lake Shear Zone
1394668	704,165	5,715,964	0.052	Tarp Lake Shear Zone
1394524	704,142	5,716,102	0.009	Tarp Lake Shear Zone
1394525	704,088	5,715,818	0.096	Tarp Lake Shear Zone
1394526	704,084	5,715,820	0.143	Tarp Lake Shear Zone
1394527	704,081	5,715,812	0.081	Tarp Lake Shear Zone
1394528	704,078	5,715,816	0.698	Tarp Lake Shear Zone
1394529	704,075	5,715,810	0.031	Tarp Lake Shear Zone



# **APPENDIX C - JORC CODE, 2012 EDITION**

## Table 1 – JORC Code 2012 Edition

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drilling since 2008, quoted with PC- prefix is from PC Gold exploration with NQ diameter (47.6mm) drill core was recovered from drilling. Noramco drilling, CP-prefix is BQ diameter (36.5mm). All other quoted intercepts and the bulk of historical drilling data is of NQ diameter including Auteco drilling subject to this release (prefix AUDD**).</li> <li>The core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m (1ft for historica drillholes) intervals or defined by geological boundarie determined by the logging geologist.</li> <li>Samples from PC Gold holes (PC- prefix) post 2008 were submitted to ALS Chemex in Thunder Bay and North Vancouver for analysis. Samples were prepared for analysis using a jaw crusher which was cleaned with a silica abrasive between samples resulting in 90° of the sample passing through an 8 mesh screen. A split of the crushed sample weighing 1000g was then pulverised to 90% passing a 150 mesh screen. Sampl pulps were analysed for gold by Fire Assay using 50g sample charge with atomic absorption spectroscopy (AAS) finish. If the returned assay result was equal to or greater than 5g/t then the sample was reassayed by Fire Assay with a gravimetric finish. Samples from historical diamond drilling programs conducted between 1981 and 2008 were dispatched to a variety of accredited laboratory during the operational life of the Pickle Crow Mine) and with unknown preparation methods and assay charge, however previous operators have duplicated and verified results. Recent sampling by Auteco minerals on drill holes subject to this release (prefix AUDD**) were submitted to AGAT Laboratories, Thunder Bay for analysis. Auteco samples undergo the same preparation and analysis techniques perviously used for PC Gold.</li> <li>Rock chip samples reported in this release are selective field samples from outcrops encountered during geological reconnaissance exploration</li> <li>All samples &gt;10g/t gol</li></ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core</li> </ul>	<ul> <li>Drilling quoted with PC- prefix is from PC Gold exploration with NQ diameter (47.6mm) drill core was recovered from drilling. Noramco drilling, CP- prefix is</li> </ul>





Criteria	JORC Code explanation	Commentary
	diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	diameter including Auteco drilling subject to this release (prefix AUDD**).
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>All drilling quoted is NQ diamond core (including Auteco drilling subject to this release -prefix AUDD**) with the exception of Noramco drillholes (CP- prefix). RQD was recorded for all diamond drilling as per industry standard. A review of the available diamond drill core RQD's from the Pickle Crow project (PC- prefix and recently completed Auteco drilling - AUDD* prefix) indicated that nearly all of the holes produced excellent recoveries with an average of &gt;90%. For drilling conducted by other operators recoveries are unknown although reports do not highlight significant core loss.</li> <li>A review of RQD results does not highlight a relationship between sample recovery and grade or highlight any sample bias due to loss of material.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All PC Gold and Auteco samples (PC- and AUDD* hole prefix) were geologically logged. Lithology, veining, alteration, mineralisation and weathering are all recorded in the geology table of the drill hole database. Other historical drillholes have been similarly logged and records have been digitised from report format.</li> <li>Geological logging of Diamond Core samples is qualitative and descriptive in nature.</li> <li>All holes quoted have been logged in their entirety.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All drilling quoted from PC Gold and Auteco exploration (PC-and AUDD* hole prefix) is.NQ diameter (47.6mm) drill core recovered from drilling. All other quoted intercepts are NQ diameter with the exception of Noramco drilling (CP- Prefix) which is BQ (36.5mm) diameter. The core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m (or 1ft) intervals or defined by geological boundaries determined by the logging geologist.</li> <li>This sampling technique is industry standard and deemed appropriate.</li> <li>PC Gold QA/QC protocols include the use of crush duplicates, ¼ core field duplicates, the insertion of certified reference materials (CRM's) including low, medium and high-grade standards and coarse blanks. This was accomplished by inserting the QA/QC samples sequentially in the drill core sample numbering system. One set of the four QA/QC types were inserted every 30 samples consisting of 1 crush duplicate, 1 ¼ split field duplicate, 1 CRM (altering between low, medium and high standard) and 1 blank. This resulted in approximately every seventh sample being a QA/QC sample. Auteco minerals (AUDD* prefix holes) follows the same QA/QC protocols but with CRM's and duplicates inserted every 25 samples. QAQC procedures are not disclosed in previous reporting but results are consistent with visual observations of mineralisation as recorded in the geological logs and qualitative proportions of logged veining and sulphide content. Post-Mining Pickle Crow Property operators employed the usual in-laboratory blanks, standards and duplicate analyses to ensure</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul> <li>precision and accuracy of results. Whist there is no documentation available for earlier results sample duplicate verification has been conducted.</li> <li>Sample size is deemed industry standard for Orogenic Gold deposits.</li> <li>For a more complete discussion of historical sampling techniques and sample preparation see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> <li>Rock chip samples were crushed and split prior to sampling. The assay techniques were consistent with the methods used for AuTECO drilling.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples were submitted to ALS Chemex in Thunder Bay and North Vancouver for analysis. Samples were prepared for analysis using a jaw crusher which was cleaned with a silica abrasive between samples resulting in 90% of the sample passing through an 8 mesh screen. A split of the crushed sample weighing 1000g was then pulverised to 90% passing a 150 mesh screen. Sample pulps were analysed for gold by Fire Assay using 50g sample charge with atomic absorption spectroscopy (AAS) finish. If the returned assay result was equal to or greater than 5g/t then the sample was reassayed by Fire Assay with a gravimetric finish Samples from historical diamond drilling programs conducted between 1981 and 2008 were dispatched to a variety of accredited laboratories in Canada for Fire Assay analysis. Historical drill results prior to 1981are Fire Assay conducted by unknown laboratories (most likely the mine laboratory during the operational life of the Pickle Crow Mine) and with unknown preparation methods and assay charge, however previous operators have duplicated and verified results. Recent sampling by Auteco minerals on drill holes subject to this release (prefix AUDD**) were submitted to AGAT Laboratories, Thunder Bay for analysis. Auteco samples undergo the same preparation and analysis techniques previously used for PC Gold.</li> <li>In addition to the Company QAQC samples (described earlier) included within the batch the laboratory included its own CRM's (Certified Reference Materials), blanks and duplicates.</li> <li>Sample assay results continue to be evaluated through control charts, log sheets, sample logbook and signed assay certificates to determine the nature of any anomalies or failures and failures were re-assayed at the laboratory. Check assaying was also conducted on 1 in every 20 samples. QAQC protocols are unknown for historical drill programs (without the PC- hole prefix).</li> <li>QA/QC work is industry standard and acceptable levels of accuracy and precision have been establishe</li></ul>





Criteria	JORC Code explanation	Commentary
		Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Historical significant intersections quoted have been verified by Independent Geological Consultants Micon International Limited. For more details see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> <li>There are no twinned holes in the dataset but a comparison of the results of different drilling generations showed that results were comparable. In addition previous operators have duplicated and verified results by re-sampling historical core. For more details see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> <li>For PC Gold drilling (PC- prefix), once all logging data was completed, core marked up, logging and sampling data was entered directly into the Gems Logger program (an MS Access-based database and stored on the onsite server. At approximately weekly intervals the server onsite was synchronized with the main server in Thunder Bay. Only one individual was responsible for synchronized with the Auteco server in Perth, Australia.</li> <li>No adjustments were made to assay data but the procedure to determine which gold assay to enter into the database is as follows. If a pulp metallic assay was performed, then a gravimetric assay was suspect, in which case the second analysis was then used. For more details of historical procedures see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Upon completion of PC Gold drillholes collars (PC Gold prefix) were surveyed by third party contractors Delta Surveying and J.D.Barnes of Thunder Bay to with +/- 1m using an SX Blue. For all other drilling hole collars were converted from local grids or digitised from georeferenced maps. Where possible these historical surface drillholes have been re-located, surveyed and verified in the field. Drillhole locations are also recorded by the Ontario Ministry of Northern Development and Mines in freely available GIS datasets. Auteco drilling (AUDD* prefix)has been</li> </ul>





Critoria	IOBC Code evaluation	Commonton
Criteria	JORC Code explanation	Commentary
		<ul> <li>surveyed with a hand-held GPS to an accuracy of less than 3m.</li> <li>A variety of down hole survey tools have been used on the property. All holes were surveyed at 50m intervals while drilling using an EZY Shot magnetic compass based tool supplied by the drillers. In conjunction with this, all holes were surveyed after completion with a non-magnetic down-hole instrument. A variety of tools were trialed including Maxibore tool provided by Reflex Instruments, a Devifelx tool operated by TECH Directional services and an SPT North Seeking Gyro. For Auteco drilling subject to this release down hole surveys have been conducted by a REFLEX North Seeking Gyro. For further historical details of survey reproducibility and tools used please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc. For all drilling not conducted by the geologist in the field. Downhole surveys of dip are recorded by azimuths away from the collar are generally lacking.</li> <li>All location data is in UTM grid (NAD83 Zone 15) except where noted.</li> <li>Topographic Control for PC Gold and Auteco drilling (PC- and AUDD* prefix) is from a DTM created generated from a LIDAR survey completed in 2008 and are to an accuracy of &lt;1m and verified by drill collar surveys. For all other collar data elevation was estimated from level plans or converted from mine grids. All surface collars have now been projected to a DTM generated from a LIDAR survey completed in 2008 and are to an accuracy of &lt;1m.</li> <li>Rock chip sample locations reported in this release were determined via hand-held differential GPS with an accuracy of +/-5m.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Due to the nature of mineralisation the hole spacing is highly variable and of a progressive exploration in nature.</li> <li>Data spacing is considered sufficient to establish geological and grade continuities for mineral resource estimation at the Inferred Category</li> <li>No sample compositing was applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drill hole orientations were designed to test perpendicular or sub-perpendicular to the orientation of the intersected mineralisation. Drilling was typically oriented perpendicular to the trend of geophysical anomalism and the mapped strike and dip of observed mineralisation on surface and elsewhere in the project area.</li> <li>Due to the density of drilling and the orientation of drilling perpendicular to mineralized bodies there is limited bias introduced by drillhole orientation.</li> </ul>





Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	<ul> <li>For PC Gold and Auteco drilling (PC- and AUDD* prefix), once the core samples are cut, bagged and sealed with zip ties, ten samples are put into rice bags which are sealed and secured with numbered security tags. Once samples arrive at the laboratory the security tags and corresponding samples were verified against onsite logs. Prior to shipment samples are stored in a locked building onsite. Site is always occupied, and no samples are left at the project during field breaks. For all other drillholes the measures taken to ensure sample security are unknown.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>An audit and review of sampling techniques and data was conducted as part of NI-43-101 resource estimation by Independent Consultants Micon International in 2018. Please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> <li>An additional audit and review of sampling techniques and data was conducted by Cube Consulting as part of the Resource Estimation subject to this release and consisted of an audit of QAQC data from previous operators PC Gold Inc. (2011-2017).</li> </ul>

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The mineral concessions of the Pickle Crow project consist of 106 patented mining claims covering 1,712ha and 88 contiguous, unpatented claims covering approximately 14,048ha. Of the 106 patented claims 98 (the Pickle Crow Lease) are held in the name of Teck Cominco Limited (Teck) and 8 are held in the name of PC Gold. The unpatented claims are held in the name of PC gold. PC Gold has a lease on the 98 patented claims held by Teck which expires in 2067. These leasehold claims are subject to two net smelter return (NSR) royalties totaling 1.25%. The other 8 patented claims (the Crowshore Patents), plus certain unpatented claims are subject to NSR royalties ranging from 2% to 3%. A full list of tenements along with details of relevant NSR's as they pertain to individual properties is given in Auteco ASX releases dated: 28/01/2020 and 17/02/2020. An additional 600 claims were staked by Auteco subsidiary, Revel Resource (JV) Ltd. and are subject to the terms of the Earn-In-Arrangement.</li> <li>Auteco has entered into a binding term sheet agreement to acquire up to 80% of the Pickle Crow Gold Project from First Mining. A payment of C\$50,000 has been made to First Mining. Subject to the completion of a formal agreement; A further</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul> <li>C\$50,000 and 25,000,000 Shares in the capital of Auteco at a deemed issue price of A\$0.008 per share. Stage 1 Earn-In (51%): Spending C\$5,000,000 over three years comprising: Spending C\$750,000 within a 12-month period ('Expenditure Payment 1'): and Spending C\$4,250,000 within a 24-month period after Expenditure Payment 1 is satisfied; and Subject to shareholder approval by Auteco, issuing to First Mining 100,000,000 Shares in Auteco. (together 'Stage 1 earn in'). Stage 2 Earn-In (a further 19%): Expending exploration expenditure in the 24-month period commencing on the date that Auteco satisfies the Stage 1 Earn-in of C\$5,000,000 ('Expenditure Payment 3'); and Within 90 days of completing expenditure Payment 3, making a cash payment to Seller in the amount of C\$1,000,000 ('Expenditure Payment 4'), (together the 'Stage 2 Earn In'). Also, Buy In: May buy a further 10% interest by paying C\$3,000,000 to First Mining; and a 2% Net Smelter Return granted after the Stage 2 Earn-In. Further details are included in ASX release (17/02/2020).</li> <li>For a more complete discussion of type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings relating to the Pickle Crow Project please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The first government survey of the area was performed by William McInnes of the Geological Survey of Canada (GSC) along the Crow River from 1903 to 1905. Prospecting in the Pickle Lake area commenced in 1926. In 1927, Lois Cohen of Haileybury formed a prospecting group and early that winter sent Alex and Murdock Mosher in to stake the first claims (December 1927) on what ultimately became the Central Patricia Gold Mines property. These claims were optioned by F.M Connell and Associates in August 1928 and Central Patricia Gold Mines Limited was incorporated on 19 February, 1929. Diamond drilling commenced at Central Patricia in February 1929 and production in March 1930. The Central Patricia discovery paved the way from exploration in the region which led to the discovery and initial drilling (1929) of the first Pickle Crow orebody the No.1 Vein by Northern Aerial Mineral Exploration Limited, a company set up in 1928 by J.E. (Jack) Hammell. In 1929 gold was also discovered by Albany River Miners Ltd. (Albany River) at the No.16 vein on the Albany River claims to the east of the then Pickle Crow Gold Mines Limited (PCGM) in 1934 with Jack Hammell continuing as president. Production from the Pickle Crow mine began on 17 April, 1935. Albany river sank the Albany shaft to a depth of 190m between</li> </ul>





1933 and 1938 and completed extensive underground development. Winoga Patricia Gold Mines was created in 1936 and drilled 73 surface diamond drill holes on a pie-shaped property located
between PCGM's holdings and the Albany River Mines ground to the east. A mine shaft was subsequently sunk on the property in 1938. That same year, PCGM took over ownership of both Albany River Mines and Winoga Patricia Gold Mines through a new company called Albany River Gold Mines Ltd. It is believed that the Winoga Patricia Go Mines shaft later became the No.3 Shaft of the Pickl Crow operation. The Cohen- MacArthur zone, located 2km to the north of the developing Pickle Crow mine, was discovered in 1933. A total of 14 surface diamond holes were drilled at Cohen- MacArthur in the winter of 1936. This property was optioned by PCGM in 1938, With the acquisition of the Cohen-MacArthur claims, PCGM became one o the largest land holders in the Pickle Lake area. The GSC completed a regional synthesis of the Pickle Crow Greenstone belt during this period as well. Ground and airborne geophysical surveys have bee completed over all or parts of the Pickle Crow property at various times during its early history. A dip-needle survey completed in 1936 on the Pickle Crow property was useful in tracing out the bands o the iron formation. A detailed magnetic survey was carried out over the property by Teck (or its predecessor companies) around 1960. The propert then underwent a series of ownerships until it became wholly owned by Teck in 1971. The propert then sat dormant until 1973 when Pickle Crow Exploration Ltd. Reviewed the economics of reopening the mine. In 1978, a merger between Pickle Crow Explorations Ltd. And four other companies saw Teck's ownership reduced to 44.6% and a new exploration company called Highland- Crow Resources Ltd. Highland Crow went on to option the property to Galant Gold Mines Limited in 1979. Gallant performed a VLF_EM geophysical survey and drilled 47 surface diamond drill holes for 7,356m. The only known soil geochemical survey done on the Pickle Crow property was completed for Gallant in 1983. Soil values ranged from 10 to 12,000ppb with the high values attributed to mine tailings and cultu





Criteria	JORC Code explanation	Commentary
		completed. Quest then sold its interest to Wolfden Resource Inc who entered into an option agreement with Jonpol Explorations Ltd. Who drilled 18 surface diamond holes for 2,173.5m. Wolfden also entered into a surface mining agreement with Cantera Mining Limited in 2000. Canterra commenced building a 225tpd gravity mill on site in 2002 but was placed into receivership in 2004. In 2006 Wolfden transferred Pickle Crow to Premier Gold Mines Ltd. Before the property was sold to PC Gold in 2007. PC Gold then explored the property completing 184 holes for 62,968m by 2011 and 173 holes for 35,840.4m from 2011 to 2014 before commissioning an NI-43-101 compliant Resource Estimate. For further details please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for First Mining Inc.
Geology	Deposit type, geological setting and style mineralisation.	
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception deg</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information in not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Refer to Appendix A in ASX release's 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, 05/10/202, 02/12/20211, 18/1/2022, 3/5/2022, 23/6/2022 as well as the current release for drill hole information for all reported drill holes for this JORC 2012 Table 1 and in accordance with ASX listing rule 5.7.2.</li> </ul>





Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All drill hole intersections are reported above a lower cut-off grade of 0.5g/t Gold or 1g/t as indicated, with no upper cut off grade has been applied. A maximum of 1m internal waste was allowed. Tabulated results are presented in ASX announcements 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, 05/10/2021, 02/12/2021, 18/1/2022, 3/5/2022 and Appendix A of this release)</li> <li>Metal equivalent values are not used</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All intersections reported in the body of this release are down hole</li> <li>The majority of the drill holes are drilled as close to orthogonal to the plane of the mineralized lodes as possible. A number of drill holes have intersected the mineralisation at high angles.</li> <li>Only down hole lengths are reported.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Maps and sections are included in the body of this release as deemed appropriate by the competent person.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Any significant higher-grade zones in historical drilling quoted in this release have been reported in ASX announcements 28/01/2020, 26/03/2020 and Appendix A of this release)</li> <li>All results above 0.5g/t lower cut-off or 1g/t quoted in this release have been reported in ASX announcements 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, 05/10/2021, 02/12/2021, 18/1/2022, 3/5/2022 and Appendix A of this release)</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	Appropriate plans are included in the body of this release.





Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Auteco Minerals Limited is currently conducting drill testing of additional lodes as well as step out and infill drilling of existing lodes to further enhance the resources quoted in this release. More information is presented in the body of this report.</li> <li>Diagrams in the main body of this release show areas of possible resource extension on existing lodes. The company continues to identify and assess multiple other target areas within the property boundary for additional resources.</li> </ul>



