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Laboratory Data Report

Client Information

Alberta Geological Survey
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Data-File Information

Date: March 17, 2023

Project name:

ODM batch number: 2851

Sample numbers: AER22TS-1039, AER22TS-1083, AER22TS-2043, AER22TS-3043, AER22TS-3050, AER22TS-3103, AER22TS-3106, AER22TS-5052, AER22TS-5093, AERCL227078, AERCL227104, AERCL227110, AERCL227114, AERCL227115, AERCL227116, AERCL227117, AERCL227119, AERHL225009, AERHL225015, AERHL225042, AERHL225044, AERHL225046, AERHL225066, AERHL225072, AERHL225074, AERHL225090, AERHL225091

Data file: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Number of samples in this report: 27

Number of samples processed to date: 273

Total number of samples in project: 299

Preliminary data:

Final data:

Revised data:

X

Samples Processed For:

Gold, KIM, MMSIM, Apatite

Processing Specifications:

1. Submitted by client: Till and sand/gravel samples mostly prescreened to -2.0 mm in the field.
2. One ± 300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. +0.25 mm table concentrates refined by heavy liquid separation at S.G. 3.0 and 3.2 to obtain mid-density and heavy mineral concentrates (MDCs and HMCs).
5. Nonferromagnetic mineral fractions of 0.25-2.0 mm MDCs and HMCs picked for apatite and indicator minerals.
6. 1.0-2.0 mm, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

Notes

Mike Crawford
Laboratory Manager

Primary Sample Processing Weights and Descriptions

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2851

Sample Number	Weight (kg wet)					Screening and Shaking Table Sample Descriptions														Class
						Clasts (+2.0 mm)					Matrix (-2.0 mm)					Colour				
											Percentage									
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Size	V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY			
AER22TS-1039	9.6	0.3	9.3	0.4	8.9	P	80	TR	20	0	U	-	Y	+	N	LOC	LOC	TILL		
AER22TS-1083	10.6	0.3	10.3	2.0	8.3	P	90	10	0	TR	U	Y	Y	Y	N	DOC	DOC	TILL		
AER22TS-2043	11.9	0.3	11.6	0.9	10.7	P	90	0	10	TR	U	-	Y	+	N	OC	OC	TILL		
AER22TS-3043	10.3	0.3	10.0	2.8	7.2	P	100	0	0	0	U	Y	Y	Y	N	OC	OC	TILL		
AER22TS-3050	10.1	0.3	9.8	0.0	9.8	No Clasts					S	-	+	+	N	DOC	DOC	SILT + CLAY		
AER22TS-3103	10.5	0.3	10.2	0.6	9.6	P	70	0	30	0	U	-	Y	+	N	LOC	OC	TILL		
AER22TS-3106	12.2	0.3	11.9	0.5	11.4	P	100	0	0	TR	U	-	Y	+	N	DOC	DOC	TILL		
AER22TS-5052	13.6	0.3	13.3	0.8	12.5	P	95	0	TR	5	U	-	Y	+	N	OC	OC	TILL		
AER22TS-5093	12.3	0.3	12.0	0.7	11.3	P	90	TR	0	10	U	-	Y	+	N	LOC	LOC	TILL		
AERCL227078	11.4	0.3	11.1	0.0	11.1	No Clasts					S	FM	N	N	N	LOC	NA	SAND + GRAVEL		
AERCL227104	10.9	0.3	10.6	0.0	10.6	No Clasts					S	FM	-	N	N	LOC	NA	SAND + GRAVEL		
AERCL227110	11.9	0.3	11.6	0.0	11.6	No Clasts					S	FM	-	N	N	DOC	NA	SAND + GRAVEL		
AERCL227114	13.6	0.3	13.3	0.0	13.3	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERCL227115	12.0	0.3	11.7	0.0	11.7	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERCL227116	11.7	0.3	11.4	0.0	11.4	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERCL227117	11.6	0.3	11.3	0.0	11.3	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERCL227119	10.9	0.3	10.6	0.0	10.6	No Clasts					S	FM	-	N	N	GY	NA	SAND + GRAVEL		
AERHL225009	7.9	0.3	7.6	0.0	7.6	No Clasts					S	FM	-	N	N	DOC	NA	SAND + GRAVEL		
AERHL225015	8.1	0.3	7.8	0.0	7.8	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERHL225042	10.2	0.3	9.9	0.0	9.9	No Clasts					S	FM	-	N	N	DOC	NA	SAND + GRAVEL		
AERHL225044	8.2	0.3	7.9	0.0	7.9	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERHL225046	9.3	0.3	9.0	0.0	9.0	No Clasts					S	MC	-	N	N	DOC	NA	SAND + GRAVEL		
AERHL225066	9.7	0.3	9.4	0.0	9.4	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERHL225072	10.8	0.3	10.5	0.0	10.5	No Clasts					S	FM	-	N	N	OC	NA	SAND + GRAVEL		
AERHL225074	10.8	0.3	10.5	0.0	10.5	No Clasts					S	MC	N	N	N	LOC	NA	SAND + GRAVEL		
AERHL225090	8.7	0.3	8.4	0.0	8.4	No Clasts					S	MC	-	N	N	LOC	NA	SAND + GRAVEL		
AERHL225091	9.6	0.3	9.3	0.0	9.3	No Clasts					S	MC	N	N	N	LOC	NA	SAND + GRAVEL		
*Clasts listed as OT are Quartz.																				

*Clasts listed as OT are Quartz.

Gold Grain Summary

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2851

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
AER22TS-1039	0	0	0	0	35.6	0	0	0	0
AER22TS-1083	0	0	0	0	33.2	0	0	0	0
AER22TS-2043	0	0	0	0	42.8	0	0	0	0
AER22TS-3043	0	0	0	0	28.8	0	0	0	0
AER22TS-3050	0	0	0	0	39.2	0	0	0	0
AER22TS-3103	1	1	0	0	38.4	840	840	0	0
AER22TS-3106	0	0	0	0	45.6	0	0	0	0
AER22TS-5052	0	0	0	0	50.0	0	0	0	0
AER22TS-5093	0	0	0	0	45.2	0	0	0	0
AERCL227078	1	0	1	0	44.4	34	0	34	0
AERCL227104	0	0	0	0	42.4	0	0	0	0
AERCL227110	1	1	0	0	46.4	8	8	0	0
AERCL227114	0	0	0	0	53.2	0	0	0	0
AERCL227115	0	0	0	0	46.8	0	0	0	0
AERCL227116	0	0	0	0	45.6	0	0	0	0
AERCL227117	0	0	0	0	45.2	0	0	0	0
AERCL227119	0	0	0	0	42.4	0	0	0	0
AERHL225009	0	0	0	0	30.4	0	0	0	0
AERHL225015	0	0	0	0	31.2	0	0	0	0
AERHL225042	10	1	2	7	39.6	149	2	136	11
AERHL225044	0	0	0	0	31.6	0	0	0	0
AERHL225046	0	0	0	0	36.0	0	0	0	0
AERHL225066	0	0	0	0	37.6	0	0	0	0
AERHL225072	4	1	2	1	42.0	25	1	24	1
AERHL225074	0	0	0	0	42.0	0	0	0	0
AERHL225090	1	1	0	0	33.6	42	42	0	0
AERHL225091	0	0	0	0	37.2	0	0	0	0

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2851

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate	
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total				
AER22TS-1039	No Visible Gold									Tr (~20 grains) marcasite (25 µm).	
AER22TS-1083	No Visible Gold									No sulphides.	
AER22TS-2043	No Visible Gold									No sulphides.	
AER22TS-3043	No Visible Gold									No sulphides.	
AER22TS-3050	No Visible Gold									No sulphides.	
AER22TS-3103	52	C	275	300	1			1 1	840 38.4	840 840	No sulphides.
AER22TS-3106	No Visible Gold										No sulphides.
AER22TS-5052	No Visible Gold										No sulphides.
AER22TS-5093	No Visible Gold										No sulphides.
AERCL227078	20	C	100	100		1		1 1	34 44.4	34 34	No sulphides.
AERCL227104	No Visible Gold										Tr (1 grain) arsenopyrite (75 µm). Tr (~300 grains) pyrite (25-50 µm). Tr (~300 grains) marcasite (25-50 µm).
AERCL227110	13	C	50	75	1			1 1	8 46.4	8 8	Tr (~100 grains) pyrite (25-50 µm). Tr (~300 grains) marcasite (25-50 µm).
AERCL227114	No Visible Gold										Tr (~200 grains) marcasite (25-50 µm).
AERCL227115	No Visible Gold										Tr (~300 grains) marcasite (25-50 µm).
AERCL227116	No Visible Gold										Tr (~500 grains) marcasite (25-50 µm).
AERCL227117	No Visible Gold										Tr (~100 grains) pyrite (25-75 µm).
AERCL227119	No Visible Gold										Tr (~2000 grains) marcasite (25-50 µm).
AERHL225009	No Visible Gold										Tr (~100 grains) marcasite (25-50 µm).
AERHL225015	No Visible Gold										Tr (~1000 grains) pyrite (25-50 µm).

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

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ODM Batch Number(s): 2851

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
AERHL225042	5	C	25	25			3	3	2	No sulphides.
	8	C	25	50	1	1	3	5	9	
	10	C	25	75			1	1	4	
	31	C	100	225		1		1	134	
							10	39.6	149	
AERHL225044	No Visible Gold									Tr (~30 grains) marcasite (25 µm).
AERHL225046	No Visible Gold									Tr (~2000 grains) pyrite (25-175 µm). Tr (~4000 grains) marcasite (25-75 µm).
AERHL225066	No Visible Gold									Tr (~100 grains) marcasite (25-50 µm).
AERHL225072	5	C	25	25	1	1	1	3	2	Tr (~5000 grains) pyrite (25-250 µm).
	18	C	75	100		1		1	24	Tr (~500 grains) marcasite (25-50 µm).
							4	42.0	25	
AERHL225074	No Visible Gold									Tr (~20 grains) pyrite (25-75 µm).
AERHL225090	20	C	75	125	1			1	42	Tr (~1000 grains) marcasite (25-50 µm).
							1	33.6	42	
AERHL225091	No Visible Gold									Tr (~5000 grains) marcasite (25-50 µm).

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Heavy Mineral Concentrate Processing Weights

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ODM Batch Number(s): 2851

Sample Number	Weight of -2.0 mm Table Concentrate (g)														
	Total	-0.25 mm	0.25-2.0 mm Heavy Liquid Separation at S.G. 3.0 and 3.2												
			Total	S.G. <3.0	Total S.G. >3.0 HMC	-0.25 mm (wash)	Mag HMC	S.G. 3.0 to 3.2 Total	Nonferromagnetic Fractions						
									Total	S.G. >3.2					
										Processed Split					
										%	Weight	0.25 to 0.5	0.5 to 1.0 mm	1.0 to 2.0 mm	
AER22TS-1039	516.6	413.8	102.8	102.0	0.8	0.3	0.05	0.2	0.3	100.0	0.3	0.2	0.1	0.03	
AER22TS-1083	728.3	648.2	80.1	78.1	2.0	0.9	0.02	0.5	0.6	100.0	0.6	0.4	0.1	0.1	
AER22TS-2043	979.5	870.0	109.5	108.6	0.9	0.5	0.01	0.2	0.2	100.0	0.2	0.2	0.03	<0.01	
AER22TS-3043	716.9	536.6	180.3	180.2	0.05	0.0	<0.01	0.02	<0.01	100.0	<0.01	<0.01	0.0	0.0	
AER22TS-3050	552.1	272.3	279.8	279.5	0.3	0.2	<0.01	0.1	0.04	100.0	0.04	0.03	0.01	0.0	
AER22TS-3103	597.9	487.7	110.2	109.3	0.9	0.3	0.04	0.3	0.3	100.0	0.3	0.2	0.1	0.01	
AER22TS-3106	890.8	753.1	137.7	137.1	0.6	0.4	<0.01	0.1	0.1	100.0	0.1	0.1	0.04	<0.01	
AER22TS-5052	1021.3	701.1	320.2	311.7	8.5	2.0	0.2	2.2	4.1	100.0	4.1	3.1	0.8	0.2	
AER22TS-5093	1090.5	780.2	310.3	299.3	11.0	2.1	0.2	3.1	5.6	100.0	5.6	3.1	1.5	1.0	
AERCL227078	818.9	530.1	288.8	262.2	26.6	7.2	0.8	2.2	16.4	100.0	16.4	12.6	2.8	1.0	
AERCL227104	757.5	718.3	39.2	38.6	0.6	0.2	0.01	0.2	0.2	100.0	0.2	0.2	<0.01	0.02	
AERCL227110	1136.7	1049.5	87.2	54.4	32.8	4.7	1.0	5.9	21.2	100.0	21.2	16.4	4.0	0.8	
AERCL227114	756.0	517.8	238.2	229.0	9.2	4.0	0.03	1.4	3.8	100.0	3.8	3.6	0.2	0.01	
AERCL227115	799.4	703.5	95.9	89.7	6.2	1.8	0.1	1.3	3.0	100.0	3.0	2.4	0.5	0.1	
AERCL227116	821.2	785.7	35.5	31.8	3.7	0.9	0.1	0.9	1.8	100.0	1.8	1.7	0.1	0.0	
AERCL227117	716.8	216.9	499.9	482.2	17.7	5.0	0.7	2.7	9.3	100.0	9.3	7.9	1.3	0.1	
AERCL227119	733.2	583.5	149.7	118.5	31.2	4.0	1.2	5.0	21.0	100.0	21.0	13.4	6.6	1.0	
AERHL225009	879.5	500.0	379.5	288.9	90.6	13.8	11.0	12.4	53.4	37.5	20.0	11.0	7.7	1.3	
AERHL225015	1221.7	560.1	661.6	489.3	172.3	24.8	9.4	10.8	127.3	15.7	20.0	5.1	6.4	8.5	
AERHL225042	898.2	762.4	135.8	119.6	16.2	4.1	0.7	4.6	6.8	100.0	6.8	5.7	0.8	0.3	
AERHL225044	930.6	756.4	174.2	172.3	1.9	0.7	0.01	0.8	0.4	100.0	0.4	0.4	0.01	<0.01	
AERHL225046	815.4	202.7	612.7	581.0	31.7	6.7	2.4	7.0	15.6	100.0	15.6	12.0	3.5	0.1	
AERHL225066	931.3	760.1	171.2	163.6	7.6	3.4	0.1	2.6	1.5	100.0	1.5	1.5	0.01	0.0	
AERHL225072	558.9	430.3	128.6	77.6	51.0	7.3	2.9	7.4	33.4	59.9	20.0	12.7	6.0	1.3	
AERHL225074	632.1	418.5	213.6	114.4	99.2	20.2	6.2	7.5	65.3	30.6	20.0	17.0	2.5	0.5	
AERHL225090	941.5	464.2	477.3	406.0	71.3	10.9	6.4	10.6	43.4	46.1	20.0	11.8	5.9	2.3	
AERHL225091	658.7	400.1	258.6	233.0	25.6	7.3	1.4	2.9	14.0	100.0	14.0	11.2	2.1	0.7	

0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights

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Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
	Total	Paramagnetic			Nonparamagnetic	
		Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
AER22TS-1039	0.20	0.02	0.04	0.12	0.02	NA
AER22TS-1083	0.36	0.01	0.02	0.30	0.03	NA
AER22TS-2043	0.20	<0.01	0.04	0.13	0.03	NA
AER22TS-3043	<0.01	Undersized concentrate therefore not electromagnetically separated.				
AER22TS-3050	0.03	Undersized concentrate therefore not electromagnetically separated.				
AER22TS-3103	0.17	0.01	0.04	0.09	0.03	NA
AER22TS-3106	0.11		0.10		0.01	NA
AER22TS-5052	3.12	0.08	0.33	2.51	0.18	0.02
AER22TS-5093	3.10	0.06	0.90	1.90	0.23	0.01
AERCL227078	12.57	7.88	3.09	1.07	0.51	0.02
AERCL227104	0.17	0.01	0.11	0.04	0.01	NA
AERCL227110	16.43	9.55	5.32	0.52	1.01	0.03
AERCL227114	3.61	0.33	2.76	0.31	0.18	0.03
AERCL227115	2.43	0.26	1.65	0.27	0.23	0.02
AERCL227116	1.72	0.12	1.26	0.18	0.15	0.01
AERCL227117	7.92	2.40	4.20	0.89	0.39	0.04
AERCL227119	13.38	7.04	5.06	0.41	0.85	0.02
AERHL225009	10.94	2.73	5.35	0.89	1.96	0.01
AERHL225015	5.06	0.97	1.63	0.45	1.97	0.04
AERHL225042	5.69	1.92	1.25	1.99	0.50	0.03
AERHL225044	0.40	0.01	0.16	0.18	0.04	0.01
AERHL225046	12.01	5.24	1.65	1.07	3.97	0.08
AERHL225066	1.50	0.12	0.66	0.46	0.22	0.04
AERHL225072	12.67	4.02	3.87	1.49	3.26	0.03
AERHL225074	16.97	11.06	3.62	0.77	1.46	0.06
AERHL225090	11.78	5.69	2.95	1.06	2.04	0.04
AERHL225091	11.24	2.90	4.96	1.23	2.10	0.05

*SG <3.20 heavy liquid separation clean-up of >1.0 amp fraction.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

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Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
													% Fo*	% Fay			% Ap	% Mz				
AER22TS-1039	0	0	80 barite (~150 gr)	2 (3 gr)	30 (~500 gr)	0	0	2 (3 gr)	1 (2 gr)	0	0	0	0	0	0	0	0	0	0	0	Goethite-almandine-hematite/barite assemblage. 0.5-1.0 mm fraction contains 20% (~25 grains) barite.	0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 3 red rutile
AER22TS-1083	0	0	100 barite (~300 gr)	0	100 (~4000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/barite assemblage. 0.5-1.0 mm fraction contains 15% (~20 grains) barite.	0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite
AER22TS-2043	0	0	0	0.6 (2 gr)	90 (~200 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/leucoxene assemblage.	
AER22TS-3043	0	0	2 barite (2 gr)	0	70 (~70 gr)	0	0	0	1 (1 gr)	0	0	0	0	0	0	0	0	0	0	0	Undersized concentrate therefore not electromagnetically separated and mineral assemblage not listed. Main mineral is goethite.	0.25-0.5 mm fraction: 2 barite
AER22TS-3050	0	0	5 barite (10 gr)	0	5 (10 gr)	0	0.5 low-Cr diopside (1 gr)	0	2 (3 gr)	0	0	0	0	0	0	0	0	0.5 (1 gr)	0	0	Undersized concentrate therefore not electromagnetically separated and mineral assemblage not listed. Main minerals are almandine, hornblende and augite.	0.5-1.0 mm fraction: 1 barite 0.25-0.5 mm fraction: 10 barite 1 low-Cr diopside 1 apatite

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp						>1.0 amp			
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
% Fo*	% Fay													% Ap	% Mz							
AER22TS-3103	0	0	0	0	95 (~1500 gr)	0	0	Tr (1 gr)	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/leucoxene-epidote assemblage.	0.25-0.5 mm fraction: 1 red rutile
AER22TS-3106	0	0	0	0	80 (~800 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/leucoxene assemblage.	
AER22TS-5052	0	0	40 barite (~800 gr)	0	50 (~15,000 gr)	0	Tr low-Cr diopside (2 gr)	Tr (1 gr)	30 (~600 gr)	0.5 (~10 gr)	0	1 (~20 gr)	0	0	0	0	0	0	0	0	Goethite-almandine/barite-kyanite-leucoxene assemblage. 0.5-1.0 mm fraction contains 3% (~20 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 2 low-Cr diopside 1 red rutile
AER22TS-5093	0	0	10 barite (~300 gr)	1 (~30 gr)	70 (~2500 gr)	3 purple, black	0	0	30 (~800 gr)	0	0	5 (~100 gr)	0	0	0	0	Tr (2 gr)	0	0	0	Goethite-almandine/kyanite-epidote-leucoxene assemblage. 0.5-1.0 mm fraction contains 1% (~20 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 2 chromite* 2 forsterite* 0.25-0.5 mm fraction: 10 representative barite 1 Fe-spinel (see KIM notes) 2 chromite 2 spinel

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
												% Fo*	% Fay			% Ap	% Mz					
AERCL227078	0	0	0.5 barite (~25 gr)	25 (~1200 gr)	3 (~3000 gr)	2 blue-green gahnite; 12 blue, purple, blue-green spinel	Tr ruby corundum (1 gr)	0.5 (~25 gr)	60 (~3000 gr)	0	Tr (10 gr)	Tr (5 gr)	0	0	0	0	0	0	0	Tr florencite (1 gr)	Almandine-siderite/kyanite-marcasite-titanite assemblage. SEM checks from 0.25-0.5 mm fraction: 3 blue-green gahnite versus spinel candidates = 2 gahnite and 1 spinel	0.25-0.5 mm fraction: 10 representative barite 2 gahnite 12 spinel 1 ruby corundum 10 representative red rutile 5 representative tourmaline 1 florencite
AERCL227104	0	0	0	2 (2 gr)	10 (~150 gr)	0	0	0	50 (~50 gr)	4 (4 gr)	1 (1 gr)	0	0	0	0	0	2 (2 gr)	0	0	Almandine-hornblende-augite/kyanite-diopside assemblage.	0.25-0.5 mm fraction: 1 tourmaline 2 apatite	
AERCL227110	0	Tr (1 gr)	Tr sphalerite (2 gr); 3 barite (~300 gr)	80 (~8000 gr)	Tr (~100 gr)	2 blue-green gahnite; 6 blue-green, pink, grey spinel	Tr ruby corundum (1 gr); Tr sapphire corundum (1 gr)	0	6 (~600 gr)	0	0.5 (~80 gr)	Tr (~25 gr)	0	0	0	0	0	Tr (~15 gr)	0.5 (~50 gr)	Tr florencite (~30 gr)	Almandine-ilmenite/marcasite assemblage. SEM checks from 0.25-0.5 mm fraction: 6 blue-green gahnite versus spinel candidates = 2 gahnite and 4 spinel; 1 ruby corundum candidate = 1 ruby corundum; and 1 sapphire corundum versus kyanite candidate = 1 sapphire corundum. 0.5-1.0 mm fraction contains 0.5% (~25 grains) barite.	0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 1 chalcopyrite 2 sphalerite 10 representative barite 2 gahnite 6 spinel 1 ruby corundum 1 sapphire corundum 10 representative tourmaline 5 representative monazite 5 representative florencite

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
												% Fo*	% Fay			% Ap	% Mz					
AERCL227114	0	0	Tr sphalerite (1 gr)	15 (~250 gr)	1 (~300 gr)	5 purple, blue, blue-green	Tr ruby corundum (1 gr); Tr low-Cr diopside (3 gr)	0	80 (~1500 gr)	0	0	Tr (1 gr)	0	0	0	0	0	3 (~50 gr)	0	0	Almandine-hornblende/kyanite-marcasite assemblage. SEM checks from 0.25-0.5 mm fraction: 1 blue-green gahnite versus spinel candidate = 1 spinel; and 1 ruby corundum candidate = 1 ruby corundum.	0.25-0.5 mm fraction: 1 sphalerite 5 spinel 1 ruby corundum 3 low-Cr diopside 20 representative apatite
AERCL227115	0	0	0	60 (~1300 gr)	0	2 blue	Tr low-Cr diopside (1 gr)	0	30 (~800 gr)	0	1 (~30 gr)	Tr (5 gr)	0	0	0	0	0	Tr (7 gr)	0	Tr florencite (4 gr)	Almandine-hornblende/marcasite-kyanite assemblage.	0.25-0.5 mm fraction: 2 spinel 1 low-Cr diopside 5 representative tourmaline 7 apatite 4 florencite
AERCL227116	0	Tr (1 gr)	0.2 barite (4 gr)	20 (~300 gr)	1 (~150 gr)	0	0	0	50 (~800 gr)	0	0	0	0	0	0	0	0	Tr (6 gr)	0	0	Almandine-hornblende/kyanite-epidote-marcasite assemblage.	0.25-0.5 mm fraction: 1 chalcopyrite 4 barite 6 apatite
AERCL227117	0	0	2 barite (~80 gr)	30 (~1200 gr)	3 (~2500 gr)	2 blue-green, grey	Tr low-Cr diopside (3 gr)	Tr (3 gr)	30 (~1200 gr)	Tr (5 gr)	2 (~80 gr)	0	0	0	0	Tr (~200 gr)	0	Tr (5 gr)	Tr (~25 gr)	Tr florencite (~15 gr)	Almandine-hornblende/diopside-kyanite-marcasite assemblage. SEM check from 0.25-0.5 mm fraction: 1 blue-green gahnite versus spinel candidate = 1 spinel.	0.5-1.0 mm fraction: 7 barite 0.25-0.5 mm fraction: 10 representative barite 2 spinel 3 low-Cr diopside 3 red rutile 10 representative tourmaline 5 representative monazite 5 representative florencite

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains	
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																	
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp					
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals			
														% Fo*	% Fay			% Ap	% Mz				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	% Fo*	% Fay	% Opx	% Cr*	% Ap	% Mz	% REE Bearing Minerals			
AERCL227119	0	0	0.1 sphalerite (10 gr); 5 barite (~500 gr)	90 (~9000 gr)	0	11 green-blue, purple, blue, grey, pink	0	0	0.5 (~50 gr)	0	Tr (6 gr)	0	0	0	0	0	0	0	Tr (4 gr)	Tr florencite (7 gr)	Almandine/marcasite assemblage. SEM check from 0.5-1.0 mm fraction: 1 sphalerite versus monazite = 1 monazite. SEM checks from 0.25-0.5 mm fraction: 1 sphalerite versus rutile candidate = 1 monazite; 1 sapphire corundum versus spinel candidate = 1 spinel; and 4 florencite versus goethite candidates = 4 florencite. 0.5-1.0 mm fraction contains 0.2% (~15 grains) barite.	0.5-1.0 mm fraction: 3 sphalerite 1 monazite resembling sphalerite 10 representative barite 0.25-0.5 mm fraction: 10 sphalerite 10 representative barite 11 spinel 6 tourmaline 4 monazite 7 florencite	
AERHL225009	0	0	70 barite (~15,000 gr)	20 (~4000 gr)	Tr (~30 gr)	1 blue-grey	0	0	0	0	Tr (~20 gr)	0	0	0	0	0	0	0	Tr (~40 gr)	0	Almandine-augite/barite-marcasite assemblage. 1.0-2.0 mm and 0.5-1.0 mm fractions contain 12% (~50 grains) and 25% (~2500 grains) barite, resepectively.	1.0-2.0 mm fraction: 10 representative barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 1 spinel 10 representative tourmaline 5 representative monazite	
AERHL225015	0	0	Tr galena (1 gr); 80 barite (~15,000 gr)	15 (~3000 gr)	1 (~300 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Almandine-hematite/marcasite-barite assemblage. 1.0-2.0 mm and 0.5-1.0 mm fractions contain 10% (~250 grains and ~800 grains, respectively) barite.	1.0-2.0 mm fraction: 10 representative barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 1 galena 10 representative barite	

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp				>1.0 amp					
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
														% Fo*	% Fay			% Ap	% Mz			
AERHL225042	0	0	4 barite (~200 gr)	2 (~100 gr)	4 (~2000 gr)	0	Tr ruby corundum (2 gr)	0	6 (~300 gr)	1 (~50 gr)	0.5 (~25 gr)	0	0	0	0	0	0	Tr (5 gr)	1 (~50 gr)	Tr florencite (1 gr)	Almandine-augite-hornblende/epidote-diopside assemblage. "Pyrite" is mostly marcasite.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 4 barite 0.25-0.5 mm fraction: 10 representative barite 2 ruby corundum 10 representative tourmaline 5 representative monazite 1 florencite
AERHL225044	0	0	3 sphalerite (11 gr); 8 barite (~30 gr)	5 (~20 gr)	Tr (~15 gr)	0	0	0	30 (~120 gr)	0.5 (2 gr)	0	0	0	0	0	0	0	0.5 (2 gr)	0	0	Augite-hornblende/diopside-kyanite assemblage. "Pyrite" is mostly marcasite.	0.5-1.0 mm fraction: 2 barite 0.25-0.5 mm fraction: 11 sphalerite 10 representative barite 2 apatite
AERHL225046	0	0	3 sphalerite (~1000 gr); 80 barite (~25,000 gr)	15 (~4000 gr)	2 (~1500 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Almandine-augite/barite-marcasite assemblage. SEM checks from 0.25-0.5 mm fraction: 5 sphalerite candidates = 5 sphalerite. 0.5-1.0 mm fraction contains 2% (~100 grains) sphalerite and 2% (~80 grains) barite.	0.5-1.0 mm fraction: 20 representative sphalerite 10 representative barite 0.25-0.5 mm fraction: 25 representative sphalerite 10 representative barite

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains			
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																			
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp									>1.0 amp		
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals					
% Fo*	% Fay													% Ap	% Mz										
AERHL225066	0	0	12 sphalerite (~300 gr); Tr molybdenite (1 gr); 5 barite (~120 gr)	2 (~50 gr)	0	1 blue-grey	0	0	10 (~250 gr)	Tr (10 gr)	1 (~30 gr)	0	0	0	0	0	6 (~150 gr)	1 (~30 gr)	0	Augite-almandine-hornblende/epidote-diopside assemblage. "Pyrite" is mostly marcasite.	0.5-1.0 mm fraction: 3 sphalerite 1 barite 0.25-0.5 mm fraction: 20 representative sphalerite 1 molybdenite 10 representative barite 1 spinel 10 representative tourmaline 20 representative apatite 5 representative monazite				
AERHL225072	0	0	0.2 sphalerite (~60 gr); 30 barite (~10,000 gr)	70 (~30,000 gr)	12 (~15,000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Almandine-augite/marcasite-barite assemblage. 1.0-2.0 mm and 0.5-1.0 mm fractions contain 20% (~30 grains) and 5% (~300 grains) barite, respectively.	1.0-2.0 mm fraction: 10 representative barite 0.5-1.0 mm fraction: 17 sphalerite 10 representative barite 0.25-0.5 mm fraction: 20 representative sphalerite 10 representative barite				

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp					>1.0 amp			
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
														% Fo*	% Fay			% Ap	% Mz			
AERHL225074	0	Tr (1 gr)	0.2 sphalerite (~30 gr); 70 barite (~10,000 gr)	5 (~800 gr)	Tr (~150 gr)	1 blue-grey	Tr ruby corundum (3 gr); Tr sapphire corundum (1 gr)	Tr (1 gr)	0.5 (~80 gr)	0	0.5 (~120 gr)	0	0	0	0	0	0	Tr (~10 gr)	Tr (~40 gr)	Tr florencite (~10 gr)	Almandine/barite assemblage. "Pyrite" is mostly marcasite. 0.5-1.0 mm fraction contains 12% (~400 grains) barite.	1.0-2.0 mm fraction: 5 barite 0.5-1.0 mm fraction: 1 chalcopyrite 2 sphalerite 10 representative barite 0.25-0.5 mm fraction: 1 chalcopyrite 20 representative sphalerite 10 representative barite 1 spinel 3 ruby corundum 1 sapphire corundum 1 red rutile 10 representative tourmaline 5 representative monazite 5 representative florencite
AERHL225090	0	0	1 sphalerite (~200 gr); 80 barite (~15,000 gr)	10 (~2000 gr)	2 (~2000 gr)	0	0	0	Tr (~20 gr)	0	Tr (4 gr)	0	0	0	0	0	0	0	0	0	Almandine-hematite/barite assemblage. 1.0-2.0 mm and 0.5-1.0 mm fractions contain trace (~20 grains) and 5% (~400 grains) barite, respectively.	1.0-2.0 mm fraction: 1 sphalerite 10 representative barite 0.5-1.0 mm fraction: 7 sphalerite 10 representative barite 0.25-0.5 mm fraction: 20 representative sphalerite 10 representative barite 4 tourmaline

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp					>1.0 amp			
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
														% Fo*	% Fay			% Ap	% Mz			
AERHL225091	0	Tr (1 gr)	2 sphalerite (~400 gr); Tr scheelite (2 gr); 50 barite (~10,000 gr)	40 (~8000 gr)	Tr (~200 gr)	1 blue	0	0	Tr (~20 gr)	0	Tr (~40 gr)	0	0	0	0	0	0	Tr (~80 gr)	Tr (~30 gr)	Tr florencite (2 gr)	Almandine-hornblende-augite/barite-marcasite assemblage. 0.5-1.0 mm fraction contains 10% (~250 grains) barite.	1.0-2.0 mm fraction: 4 barite 0.5-1.0 mm fraction: 11 sphalerite 10 representative barite 0.25-0.5 mm fraction: 1 chalcopyrite 20 representative sphalerite 2 scheelite 10 representative barite 1 spinel 10 representative tourmaline 20 representative apatite 5 representative monazite 2 florencite

*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Client: Alberta Geological Survey
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023
Total Number of Samples in this Report: 27
ODM Batch Number(s): 2851

Kimberlite Indicator Mineral Counts

Sample Number	Number of Grains																																												
	Pseudo-KIMs						KIMs																																						
	1.0 to 2.0 mm		0.5 to 1.0 mm		0.25 to 0.5 mm		1.0 to 2.0 mm										0.5 to 1.0 mm										0.25 to 0.5 mm										Total (KIMs)								
	Low-Cr diopside*		Low-Cr diopside*		Low-Cr diopside*		GP		GO		DC		IM		CR*		FO*		GP		GO		DC		IM		CR*		FO*		GP		GO		DC				IM		CR*		FO*		
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P					
AER22TS-1039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
AER22TS-1083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AER22TS-2043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-3043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-3050	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-3103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-3106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-5052	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AER22TS-5093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227117	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERCL227119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AERHL225091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

T = Total number of grains in sample. Total is estimated if number is greater than number of picked grains.
P = Number of picked grains in sample.
* Low-Cr diopside, forsteritic olivine and chromite also referenced on MMSIMs data.

Kimberlite Indicator Mineral Remarks

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2851

Sample Number	Remarks
AER22TS-1039	No KIM remarks.
AER22TS-1083	No KIM remarks.
AER22TS-2043	No KIM remarks.
AER22TS-3043	No KIM remarks.
AER22TS-3050	No KIM remarks.
AER22TS-3103	No KIM remarks.
AER22TS-3106	No KIM remarks.
AER22TS-5052	No KIM remarks.
AER22TS-5093	SEM checks from 0.5-1.0 mm fraction: 2 CR candidates = 2 CR. SEM checks from 0.25-0.5 mm fraction: 3 CR versus IM candidates = 2 CR and 1 Fe-spinel.
AERCL227078	No KIM remarks.
AERCL227104	No KIM remarks.
AERCL227110	No KIM remarks.
AERCL227114	No KIM remarks.
AERCL227115	No KIM remarks.
AERCL227116	No KIM remarks.
AERCL227117	No KIM remarks.
AERCL227119	No KIM remarks.
AERHL225009	No KIM remarks.
AERHL225015	No KIM remarks.
AERHL225042	No KIM remarks.
AERHL225044	No KIM remarks.
AERHL225046	No KIM remarks.
AERHL225066	No KIM remarks.
AERHL225072	No KIM remarks.
AERHL225074	No KIM remarks.
AERHL225090	No KIM remarks.
AERHL225091	No KIM remarks.

Apatite Separates

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2851

Sample Number	Apatite Grains in S.G. 3.0-3.2, 0.25-2.0 mm Concentrates			
	Estimated Total %	Number		Remarks
		Estimated Total	Picked	
AER22TS-1039	0.5	6	6	
AER22TS-1083	0	0	0	
AER22TS-2043	0	0	0	
AER22TS-3043	0	0	0	
AER22TS-3050	0	0	0	
AER22TS-3103	0	0	0	
AER22TS-3106	Tr	1	1	
AER22TS-5052	0	0	0	
AER22TS-5093	0	0	0	
AERCL227078	Tr	15	15	
AERCL227104	2	10	10	
AERCL227110	1	300	20	
AERCL227114	2	120	0	
AERCL227115	0.5	50	13	
AERCL227116	1	17	17	
AERCL227117	2	20	20	
AERCL227119	0.5	100	20	
AERHL225009	Tr	50	20	
AERHL225015	0	0	0	
AERHL225042	0.5	100	20	
AERHL225044	0.5	17	17	
AERHL225046	Tr	10	10	
AERHL225066	2	200	0	
AERHL225072	0.5	200	20	
AERHL225074	1	400	20	
AERHL225090	Tr	10	10	
AERHL225091	2	300	0	