

### 10<sup>th</sup> March 2021

ASX Announcement

## EXTENSIVE HIGH GRADE CRYOLITE-FLUORITE MINERALISATION DELINEATED BELOW IVITTUUT PIT

## **<u>Highlights</u>**

- High Grade cryolite-fluorite zones beneath lvittuut Pit delineated using 3D modelling based on analysis of historical diamond drilling.
- Thick high grade envelops of cryolite-fluorite mineralisation beneath the pit floor derived from historic laboratory reports have been verified with plan and section plots. Significant intersections include:
  - o Drill Hole 110 10.4m @ 15.0% cryolite and 45.9% fluorite from 11.20m
  - Drill Hole 129 10.7m @ 55.0% cryolite and 22.1% fluorite from 29.54m
  - Drill Hole 141 16.2m @ 24.5% cryolite and 39.0% fluorite from 22.0m
  - Drill Hole 149 18.0m @ 17.4% cryolite and 42.4% fluorite from 18.0m
  - Drill Hole 162 10.7m @ 18.6% cryolite and 33.9% fluorite from 18.88m
  - Drill Hole 167 10.0m @ 14.0% cryolite and 56.8% fluorite from 19.0m
  - Drill Hole 185 11.6m @ 41.2% cryolite and 30.3% fluorite from 15.4m
  - Drill Hole 189 20.0m @ 31.8% cryolite from 18.60m
- Exploration Target defined for lvittuut Open Pit (Table 2) outlines the lower and upper limits for the mineralised cryolite-fluorite-iron-zinc domains.
- Cryolite-Fluorite mineralised area is a circular feature measuring approximately 200m in diameter developed immediately below the base and lower edges of the open pit.
- The modelled domain representing in-situ mineralisation immediately below the open pit averages 6m, ranging between 4m and 25m true thickness. At the lower corners of the pit the domain bulges to thickness of up to 30m.
- Eclipse has digitised a total of 169 diamond drill holes representing over 8,100m of drilling within and around the pit. Approximately 19,000m of historical diamond drill core remains untested for rare earth mineralisation (fluorite zone at lvittuut is known to contain REE mineralisation).

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce results of its ongoing evaluation of definitive historical exploration and analytical data for the lvittuut open pit reported by independent mining consultants Outokumpu Oy. The results demonstrate additional mineralisation within the historical lvittuut mine environment. Data compilation, 3D geological and mineralisation modelling of historical exploration data from the lvittuut deposit indicate substantial economic potential within and surrounding the pit.

The lvittuut Project (sometimes called lvigtut) is known as the world's largest and only mine from which cryolite was historically produced for use in the extraction of aluminium from bauxite (alumina) ore.

Mining commenced in 1855 continued until 1987 through various stages of production. A total of 3.8 million tonnes of ore was mined with an average grade of 58% cryolite. Diamond drilling was first carried out between 1912 and 1915, some 53 years after commencement of mining. The mine area was then redrilled in 1919 when the first efforts were made to evaluate the deposit. Further detailed drilling programs were ECLIPSE METALS LTD

Level 3, 1060 Hay Street, West Perth WA 6005 T: +61 8 9480 0420 | F: +61 8 9321 0320 ABN 85 142 366 541 carried out between 1948 and 1958 with the view of establishing the geological boundaries to the existing deposit. In 1985 further drilling programs were aimed to locate additional cryolite ore within the pit area.



Figure 1: 3D Oblique Image showing the Interpreted Domains 1 and 2 (with the Decline and Underground Workings)

# WORK COMPLETED

Much of the historical data for the lvittuut Deposit sourced in open file reports from the GEUS portal required digitisation. Eclipse has also relied heavily on geological maps, assay data and cross sections from the previous operators of the lvittuut mine.

The historic data, comprising paper cross sections and plans that contain both lithological and analytical data, were reviewed and digitised to form a 3D database. This review indicated the data are reliable and methods used were appropriate to the industry standards of that time.

## Eclipse Metals Ltd Executive Chairman Mr Carl Popal commented:

"Building on the long mining history of the Ivittuut Cryolite Mine providing strategically important minerals, Eclipse Metals has now shown there is substantial potential for development of additional industrial mineral resources which are in demand by the expanding green economy, particularly in the European market.

The true thickness of the mineralised zones highlights the potential for future mining beneath the pit walls and floor. The depth extensions of mineralisation have exceeded our expectations with potential upside for further mineralisation within the zinc and quartz zones.

We are confident that with more assaying of the drill core, the zinc mineral volume and grades could be increased as there is a close association between the iron and zinc values. During the course of

exploration by the previous owners, base metal mineralisation was never a target commodity hence little work was completed."

# **DRILL HOLE DATA**

In all, Eclipse has recorded data from 169 diamond drill holes for over 8,100m of drilling. Analytical data associated with each hole has been digitally captured to form a database.



Figure 2: Historical Drillhole Location Map with Fluorite Grade Distribution (background)

Analytical data comprise the following intervals. Each sample interval averaged 3m in length.

Cryolite:	488 intervals
Fluorite:	520 intervals
Iron/siderite:	535 intervals
Zinc:	162 intervals

The data was derived from laboratory analytical reports contained within 108 pages of GEUS Report 20241 and verified with historic cross sections and plans. Significant drill intersections derived from digitising the historic analytical data within the pit are shown in Table 1. All drilling results are presented in Appendix A.

Table 1: Significant Drill Intersections >10% cryolite (fluorite is reported within intervals def	ined by
cryolite)	

Hole Id	North	East	RL (m)	Total Depth (m)	Dip	Azimuth	From (m)	To (m)	Interval (m)	Cryolite %	Fluorite %
106	1086	975	-58	24.2	-90	0	12.4	23.5	11.1	12.9	50.5
108	1086	976	-64	24.1	-90	0	13.2	23.0	9.8	12.2	55.4

Hole Id	North	East	RL (m)	Total Depth (m)	Dip	Azimuth	From (m)	To (m)	Interval (m)	Cryolite %	Fluorite %
110	1096	997	-58	25.0	-90	0	11.2	21.6	10.4	15	45.9
129	1201	935	-52	42.7	0	144	29.5	40.2	10.7	55.7	22.1
141	1104	1004	-56	112.7	-30	324	22.0	38.2	16.2	24.5	39
142	1085	994	-58	102.9	-90	0	14.4	25.7	11.3	11.4	44.5
147	1122	1012	-58	52.7	-30	324	23.4	31.9	8.5	59.9	15.7
149	1092	1002	-58	39.7	-90	0	18.0	36.0	18	17.4	42.4
155	1142	1019	-58	28.1	0	324	13.4	21.0	7.6	81.8	13.6
167	1157	878	-55	36.3	-30	144	19.0	29.0	10	14	<b>56.8</b>
185	1077	944	-59	45.2	-60	234	15.4	27.0	11.6	41.2	30.3
186	1077	981	-59	32.2	-30	324	17.5	27.1	9.6	52.6	14.8
189	1077	988	-55	54.4	40	324	18.6	38.6	20	31.8	1.8
191	1166	881	-54	32.7	-30	144	10.8	19.4	8.6	18.1	70.4
194	1064	971	-54	45.1	30	324	6.5	14.9	8.4	48.8	0.7
194	1064	971	-54	45.1	30	324	7.0	33.5	26.5	15.6	<0.01
201	1024	917	9	82.3	-53	54	54.2	73.3	19.1	24.1	0.7
15_85	1129	883	-66	31.0	-90	0	0.0	9.0	9	12.7	<b>52.8</b>
J3	1090	929	-58	172.6	-54	234	13.5	29.8	16.3	13.2	59.6
J8	1236	989	-19	206.7	-45	144	4.0	11.2	7.2	62.3	8
	Drill Ho 18m @ 17.4% (	ole 149 Cy & 42.4% Fl			_ /	7.6m @ 8	1.8% Cy & 13.	6% FI		lvittuut the Cryolit with S	Open Pit Highlig e-Fluorite Domai Significant Histori
Drill 10.4m @ 15.0	Hole 110 1% Cy & 45.9% F					<b>11.1</b>	0 13.5% Cy a	& 25.4% Fl		Cryo	Projection: Local Grid 1:,5,000 Scale
Dri 20m (	i Hole 189 @ 31.8% Cy						9.3m (	0 15.8% Cy			metres
Drill H 10.7m @ 18.6%	ole 162 Cy & 33.9% Fl	X	> <mark>.</mark>								××
Drill Hole .6m @ 41.2% C Drill Hole 201 1m @ 24.1% C	185 y & 30.3% FI								Drill Hole 38_8 4m @ 23% Cy Drill Hole 12 0.7m @ 55.0% Cy 8	ill Hole J8 12.3% Cy & 8% FI	
<b>U</b>											

 Drill Hole 10\_85
 Cryolite-Fluorite

 0.5m @ 11.5% Cy & 63.9% FI
 Drill Hole 15\_85

 9m @ 12.7% Cy & 52.8% FI
 Drill Hole 104

 8.3m @ 16.8% Cy & 45.5% FI
 Drill Hole 167

 10m @ 14.0% Cy & 56.8% FI
 B

Figure 3: Summary of Significant Cryolite/Fluorite Drill Intersections with Grade Distribution in the Pit (background)



Figure 4: Plan view of the Pit showing Cross Section (S11) and Long Section (A20)

The analytical data was reviewed in 3D and formed the basis of geological modelling. Cryolite and fluorite mineralisation occur together and this association is more pronounced with an increase in grade (Figure 3). There is also a strong association between zinc and iron which is more pronounced below the cryolite zone. Minor cryolite and fluorite is associated with the iron and zinc zone.



Figure 5: Cross Section outlining Drill Grades within Interpreted Domains 1 & 2



Figure 6: Long Section outlining Drill Grades within Interpreted Domains 1 & 2

# **GEOLOGICAL MODELLING**

Geological domains were developed to represent the two mineral associations:

Domain D1:Cy-FI (cryolite and fluorite)Domain D2:Fe-Zn (iron and zinc)

Domain 1 is a circular feature measuring approximately 200m in diameter, developed immediately below the base and lower edges of the open pit. The modelled domain represents in-situ mineralisation that could be accessed from the pit.

Immediately below the open pit this domain averages 6m, ranging between 4m and 25m true thickness. At the lower corners of the pit the domain bulges out to a thickness of up to 30m (Figure 7).

Domain 2 is an essentially flat to shallow southwest-dipping tabular body located directly beneath Domain 1. Under the central part of the pit the vertical separation between Domain 1 and Domain 2 is approximately 25m. Towards the pit perimeter the two zones intersect (Figure 7). The Exploration Target (Table 2) results are based on actual Exploration Results which included a total of 169 diamond drill holes representing over 8,100m of drilling within and around the historic pit. The assay data used are in excess over 2,000 analytical results.

Range	Mineral	Cut Off (%)	Tonnage (t)	Grade %
Exploration Target - Lower	Cryolite in Domain 1	0	870,300	16.0
Exploration Target - Upper	Cryolite in Domain 1	0	916,200	17.7
Exploration Target - Lower	Cryolite in Domain 1	10	680,900	18.4
Exploration Target - Upper	Cryolite in Domain 1	10	716,800	20.4
Exploration Target - Lower	Cryolite in Domain 1	20	268,400	25.8
Exploration Target - Upper	Cryolite in Domain 1	20	282,500	28.6
Exploration Target - Lower	Fluorite in Domain 1 (at 10% Cy cut off)	0	163,300	18.3
Exploration Target - Upper	Fluorite in Domain 1 (at 10% Cy cut off)	0	171,900	20.3

 Table 2: Exploration Target reported by Mineral Domains

Range	Mineral	Cut Off (%)	Tonnage (t)	Grade %
Exploration Target - Lower	Fluorite in Domain 1 (at 20% Cy cut off)	20	55,900	39.6
Exploration Target - Upper	Fluorite in Domain 1 (at 20% Cy cut off)	20	58,800	43.8
Exploration Target - Lower	Fe in Domain 2	0	924,200	27.5
Exploration Target - Upper	Fe in Domain 2	0	966,900	30.3
Exploration Target - Lower	Zn in Domain 2	0	63,600	1.5
Exploration Target - Upper	Zn in Domain 2	0	66,600	1.7

**Cautionary Statement:** The potential quantity and grade of the Exploration Targets is conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared based on actual exploration results described in this report including historical drilling data and geological modelling. The specific gravity (SG) measurements are listed below:

21	SG	Lower	Upper		
9	Domain 1	2.85	3.00		
	Domain 2	3.25	3.40		



Figure 7: Cross section and 3D views of mineral domains

Distribution of grade within the domains is shown in Figure 8. In Domain 1, it can be seen that cryolite grades increase towards the perimeter of the pit. The grade of fluorite is highest towards the southwest half of the pit.

There is evidence of limited underground extraction below the northern part of the pit. These working appear to have focused on a zone of higher-grade zinc that was developed beneath the cryolite-fluorite zone (Figure 7). Material volumes, depleted using the pit surface, were derived for both mineral domains (refer to Table 2).

Zinc mineralisation within Domain 2 is considered to have a very close association with occurrence of siderite (iron carbonate). Historical drilling campaigns only assayed for base metals to a limited extent with little work focusing on potential zinc mineralised lodes. Some of the drilling has yielded high grade base

metals values such as **1.7% Cu**, **18.2% Zn and 7.7% Pb** (Appendix C) hosted within the iron (siderite) mineralised lode. Most of the zinc mineralisation is hosted within >30% Fe rich zones and remains largely untested. From the 8,100m drilled, only 162 assays were conducted for base metals as cryolite was the primary focus for all exploration drill programs.



Figure 8: Distribution of Cryolite-Fluorite-Iron-Zinc Grades within the Domains

Most of the zinc mineralisation is hosted within >30% Fe rich zones remains untested.

# **Forward Strategy**

Subject to COVID restrictions, the Company will be looking into commencement of activities to calculate a JORC Code compliant resource estimate at the lvittuut project at the earliest opportunity. Initial steps are to re-log, re-split where possible, sample and assay existing mineralised core with a view to preparing a JORC Code 2012 compliant resource estimation during this calendar year. The Company will implement QA/QC methods along with geotechnical studies. Further, Eclipse will seek more recent data while working on the extensive geological and GIS database over the Project area and surrounds. Drill core assays for the quartz zones beneath the mineralised cryolite-fluorite geological domains are currently being assembled. Additional grade and density verification will enable calculation of a resource estimate based on geological modelling completed to date. Further updates will be announced to the market when all interpretations have been completed.

## Authorised for release by the Board

Carl Popal *Executive Chairman* 







Pedro Kastellorizos

**Non-Executive Director** 

#### **Competent Persons Statement**

The information in this report / ASX release that relates to Exploration Results and Exploration Targets is based on information compiled and reviewed by Mr. Alfred Gillman, Director of independent consulting firm, Odessa Resource Pty Ltd. Mr. Gillman, a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (the AusIMM) and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify 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 Gillman consents to the inclusion in this report / ASX release of the matters based on information in the form and context in which it appears. Additionally, Mr Gillman confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

The Competent Person does not consider the current data to be sufficiently verified to enable a classified resource estimate. The estimated volumes of the mineral domains are based on historical analytical data and are thus indicative only. Additional work programs, including site visits, resampling of drill core and representative bulk density determination, are required to prior to the estimation and reporting of a classified resource as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC) 2012.

#### **Forward Statement**

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved." Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws

#### About Eclipse Metals Ltd (ASX: EPM)

Eclipse Metals Ltd is an Australian exploration company focused on exploring South-western Greenland, Northern Territory and Queensland for multi commodity mineralisation. Eclipse Metals Ltd has an impressive portfolio of assets prospective for cryolite, fluorite, siderite, quartz (high purity silica), REE, gold, platinum group metals, manganese, palladium, vanadium and uranium mineralisation. The Company's mission is to increase shareholders' wealth through capital growth and ultimately dividends. Eclipse Metals Ltd plans to achieve this goal by exploring for and developing viable mineral deposits to generate mining or joint venture incomes.

#### REFERENCES

The below documents are all classified as open file reports which can be downloaded from the internet

#### The following references have been cited in this report: -

Bondam, J. 1991: The Ivigtut cryolite deposit in South Greenland. Short note on recent geoscientific developments. GEUS Open File Series Report No.21339, Grønlands Geologiske Undersøgelse 91/4, 29 pp.

J Gothenborg (1990), Platinova Resources Ltd, Report on the Cryolite Exploration at lvittuut, South Greenland, Special emphasis on the ore potential of broken low-grade fill-materials (GEUS open file report 20516)

Kryolitselskabet Oresund A/S (1987) The Planning of the Ivigtut Open Pit of Kryolitselskabet Oresund A/S - Mining of the Flouritic Orebody"; Outokompu OY Mining Consultants GEUS Report File No. 20236

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Kryolitselskabet Oresund A/S (1985) Lodighedsdistribution I, Ivigtut Kryolitbrud GEUS Report File No. 20241

GEUS Report File No. 21549 (1962) "Ivigtut Survey Report, 1962"

		Local	Local	RL (m)	Total Donth	Din	Azimuth	Holo
		East	North	(m)	Depth	Dip	Azimuth	поте
	101	1157.4	876.9	-52	28.02	0	144	146
	102	1155.3	880	-55.2	100	-90	0	147
	103	1137.2	8/1.1	-52.5	19.2	0	144	148
	104	1136.2	8/2.6	-54	22.1	-90	0	149
6	105	1083.8	979.1	-58	100	-90	0	150
2	106	1085.8	974.9	-58	24.2	-90	0	151
6	107	1082.7	972.4	-68.9	100	-90	0	152
(	108	1086.4	975.5	-64	24.1	-90	0	153
	109	1094.8	998.7	-56.5	39.7	-35	324	154
6	110	1095.8	997.3	-58	25	-90	0	155
(	111	1096.8	885.4	-67.3	100	-90	0	156
0	112	1115.1	885.6	-54	100	-90	0	157
(	113	1130.6	8/2	-53	17.2	0	234	158
	114	1082.3	947.6	-57.4	26.6	-90	0	159
	115	1085.4	949.9	-58.3	22.4	-90	0	160
	116	1107.5	892	-65	100	-90	0	161
	117	1109	893.2	-54	23.2	-90	0	162
G	118	1170.4	893.8	-52.8	32.9	0	144	163
6	119	1169.6	894.2	-54	31.83	-60	144	164
6	120	1098.1	910	-57	26	-90	0	165
2	121	1099	910.6	-58.5	16.62	-60	234	166
(	122	1194.6	978.9	-52.3	19.8	-45	324	167
	123	1194.6	978.9	-50.8	64.02	0	324	168
0	124	1197.8	973.8	-52.6	25.1	-45	144	169
C	125	1197.8	973.8	-50.5	57.2	0	144	170
2	126	1213.4	987.8	-48.2	46.44	10	324	171
6	127	1217.7	982	-48.1	37.8	20	144	1/2
(	128	1217.9	980.4	-49.9	14.5	-45	144	173
2	129	1201.3	935.1	-52	42.7	0	144	174
((	130	1199.3	938.6	-54	21.98	-90	0	175
	131	1190.2	917	-51.5	22.82	10	144	176
π	132	1177.7	900.4	-51.9	28.7	20	144	177
	133	1176.8	901.7	-52.8	21.84	-90	0	178
((	134	1082.3	923.1	-57.4	22.7	0	234	179
	135	1191.5	1026.2	-51.8	38.6	0	234	180
	136	1191.6	1026.4	-53	26.2	-45	234	181
	137	1200.9	1019.9	-0.6	43.3	-90	0	182
	138	1201.1	1020.2	-0.2	43.4	-90	0	183
	139	1202	1003.1	-33.1	42.5	-40	324	184
	140	1103.1	1003.8	-56	32	0	324	186
	141	1103.6	1003.6	-56.4	112.7	-30	324	187
	143	1084.3	995.6	-57.6	68	-30	324	188
	144	1084.1	995.9	-56.5	29.9	0	324	189
	145	1087.5	991.2	-58.4	34	-90	0	190

# APPENDIX A: COLLAR FILE IVITTUUT DRILLING

	Local	Local	RL	Total	Dia	0 - 1
Hole Id	East	North	(m)	Depth	Dip	Azimutn
146	1122.4	1011.2	-59.5	55.3	-90	0
147	1121.9	1012	-58	52.7	-30	324
148	1122.3	1011.5	-55.9	29.9	0	324
149	1092.1	1002.4	-57.7	39.7	-90	0
150	1156	1000.5	-56.7	40.9	-90	0
151	1155.2	1001.3	-57.7 84.8		-30	54
152	1157.5	1001.8	-58.1 51.8		0	54
153	1145.6	1013.1	-58.8	40.9	-90	0
154	1144.6	1014.8	-58.2	54.1	-30	324
155	1142.1	1018.5	-58	28.1	0	324
156	1145.9	993.4	-58.7	34.6	-90	0
157	1149.3	973.3	-58.9	32	-90	0
158	1122.2	977.4	-58	38.8	-90	0
159	1140.7	1013.8	-58.2	112.4	-45	54
160	1144.6	1016.7	-58	50.1	0	54
161	1134.2	960.7	-57.5	40.6	-90	0
162	1080.9	983.4	-59	117.1	-60	324
163	1079.2	985.3	-57	24.3	0	324
164	1098.5	958.6	-58	16.8	-90	0
165	1110.4	942.2	-59	103	-90	0
166	1122	926.9	-59 12.9		-90	0
167	1156.5	878.3	-54.5	36.3	-30	144
168	1132.7	911.3	-56	20.7	-90	0
169	1155.4	914.1	-55.5	15.3	-90	0
170	1158.2	927.6	-59	100	-90	0
171	1173.9	939.9	-58.9	29.4	-90	0
172	1146.3	944.4	-55.2	50.4	-90	0
173	1130.1	932	-63	5.2	-90	0
174	1112.2	956.3	-59	14.5	-90	0
175	1108.8	978.9	-58	13.9	-90	0
176	1112.3	1007.8	-55.2	31.6	0	324
177	1112.2	1007.8	-56.7	42	-30	324
178	1125	990.1	-57.7	27.2	-90	0
179	1073.5	965.8	-58.2	23.9	-60	234
180	1140.1	867	-53.9	15.24	-45	144
181	1128.1	870.3	-54.3	19.8	-40	234
182	1184.2	959	-54.4	10.21	-90	0
183	1178.5	967.4	-54.5	8.2	-90	0
184	1192.2	914.2	-54.5	6.39	-90	0
186	1077	980.6	-58.5	32.2	-30	324
187	1068.5	962.6	-58	21.1	-20	234
188	1051.7	989.7	1.2	89.6	-80	144
189	1077.4	988.1	-55	54.4	40	324
190	1167.4	880	-52	24.8	25	144

1														
	Hole Id	Local East	Local North	RL (m)	Total Depth	Dip	Azimuth	Hole Id	Local East	Local North	RL (m)	Total Depth	Dip	Azimuth
	191	1166.4	881.4	-53.6	32.7	-30	144	29_85	1164.6	888.7	-59.2	40.2	-90	0
	192	1063.7	973	-52.5	57	49	324	30_85	1130.5	910.4	-55.5	14.5	-90	0
	193	1070.9	980.3	0	100	-90	0	31_85	1125.5	905	-65	20.1	-90	0
	194	1063.8	971.3	-53.5	45.1	30	324	32_85	1153.1	899.9	-61.5	34.2	-90	0
2	195	1064.3	972.3	-67.9	100	-90	0	33_85	1163.7	956.9	-58.5	34.3	-90	0
	196	1175.7	885.8	-52.1	19.6	20	144	34_85	1141.4	916.4	-62.4	39.7	-90	0
2	197	1090.7	1004	-59	37.9	45	324	35_85	1185.9	923.5	-59	39.2	-90	0
2	198	1087	992	-57	46.4	45	324	36_85	1169.2	911.9	-56.9	36.7	-90	0
	199	1183.6	892.3	-51.2	25	20	144	37_85	1212.3	933.5	-54.5	35.2	-90	0
	200	1190.2	899.6	-52.2	25	30	144	38_85	1220.7	942.1	-53.9	35.3	-90	0
	201	1023.8	917.3	8.9	82.3	-53	54	39_85	1178.9	997.5	-62.4	21.4	-90	0
	202	1029.8	893.3	10.5	70.6	-49	54	40_85	1166.4	984.5	-63.1	25.1	-90	0
	1_85	1153.8	912.4	-58.4	12.1	-90	0	41_85	1169.7	1010.2	-62.7	24.9	-90	0
	2_85	1114.2	938.1	-65.5	11.7	-90	0	42_85	1157.8	928.3	-59	49	-90	0
	3_85	1143.6	879.7	-64.8	11.6	-90	0	43_85	1173.9	939.9	-56	28	-90	0
	4_85	1153.9	949.7	-60	50.3	-90	0	44_85	1190.1	950.9	-59.1	5.8	-90	0
	5_85	1143.9	978.1	-64	31	-90	0	1_86	1061.2	895.6	9.2	100	-90	0
	6_85	1169.7	930.2	-58.7	49.2	-90	0	2_86	1054.2	902.8	8.6	100	-90	0
	7_85	1184.7	907.2	-54	33.9	-90	0	3_86	1040.6	905.4	9.3	100	-90	0
Y	8_85	1130.5	933.2	-63.2	25.6	-90	0	10_86	1061.2	895.6	9.2	102.6	-90	0
	9_85	1121.8	927.7	-59	21.2	-90	0	11_86	1054.2	902.8	8.6	98.4	-90	0
7	10_85	1114.1	924.1	-66	21.9	-80	54	12_86	1040.6	905.4	9.3	104.8	-90	0
	11_85	1138.4	938.7	-65	44.5	-78	54	13_86	1036.5	914.9	8	111.4	-90	0
J	12_85	1105.8	915.7	-68	26.3	-68	54	14_86	1040.3	930.2	6.8	100.6	-90	0
	13_85	1145.7	944	-56	46.45	-69	54	15_86	1039.6	929.7	6.9	39.3	-90	0
Y	14_85	1145	894.3	-63.5	36.8	-70	54	16_86	1045.6	949.6	3.7	64.3	-90	0
2	15_85	1128.7	883	-65.7	31	-60	54	16_86A	1045.6	949.6	3.7	94.6	-90	0
	16_85	1093.7	931.7	-71	16.8	-74	54	17_86	1051	990.5	1.3	89.6	-90	0
J	17_85	1103.5	938.6	-67.5	25.1	-77	144	18_86	1052	1006.6	1.8	58.8	-90	0
	18_85	1090.2	953.5	-69.8	6.6	-71	144	18_86A	1052	1006.6	1.8	100.4	-90	0
0	19_85	1100.6	973	-68.4	35.6	-90	0	20_86	1044	1016.5	2.3	100	-90	0
	20_85	1103	986.7	-69.7	32.4	-80	0	21_86	1047.5	1012.6	2.8	100	-90	0
7	21_85	1119	998.5	-71	28.1	-90	0	22_86	1047.8	1012.1	2.8	95.2	-90	0
	22_85	1114.5	970.9	-62	34.4	-80	144	23_86	1050.2	991.8	1.3	82.3	-90	0
(	23_85	1126.4	954.8	-66.8	42	-84	324	24_86	1050.5	991	1.3	89.6	-90	0
4	24_85	1135	993.9	-66.1	31.9	-87	144	J3	1090	928.6	-58.2	172.6	-54	234
	25_85	1130.6	982.3	-65.2	28.4	-90	0	J7	1220.8	976.6	-20.3	172.6	-45	144
	26_85	1142.7	966.3	-62	42.3	-90	0	J8	1236.1	989.2	-19	206.7	-45	144
	27_85	1156.5	878.6	-64	29.5	-90	0	J9	1225.4	1004.7	-26.8	112.7	-40	324
	28 85	1137.1	888.8	-65	48	-90	0							

# APPENDIX B: IVITTUUT DRILL ASSAYS (Cryolite/Fluorite/Iron)

	Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %	
	101	22.4	24.3	70.7	7.9	0.6	
	101	24.3	26.89	31.6	35.8	0.3	
	101	26.89	28.02	4.6	10.2	0.7	
<u>(</u>	103	13.6	15.08	25.6	45.5		
	103	15.08	16.5	5	48	0.2	
	103	16.5	17.4	4.2	51.7	0.2	
	103	17.6	19.19	1.5	8.5	0.5	
	104	11	14.6	18.4	47.9	0.5	
	104	14.6	17	12.3	51.9	0.1	
	104	17	19.26	19.1	34.8	0.2	
	106	12.43	16.17	11.4	38.2	0.8	
	3 106	16.17	20.2	14.9	60.4	0.2	
	106	20.2	23.48	12.2	52.3	0.2	
	108	12.35	13.24	5.2	30.9	1.2	
	108	13.24	16.15	11.2	60	0.4	
	108	16.15	19.23	10.3	60.3	0.2	
	108	19.23	23.01	14.6	47.9	0.1	
	109	23.8	24	80	3		
2	109	24	27.85	8.3	40.9	0.5	
	109	27.85	31.94	3	41.7	0.7	
	110	11.2	14.4	13.7	26.1	0.6	
	110	14.4	17.75	12.9	57.7	0.2	
	110	17.75	21.59	17.8	52	0.1	
	112	13.5	16.35	7.4	52.2	0.2	
	112	16.35	20.38	9.2	46.6	0.2	
	113	14.1	17.2	9.1	3.4	1.2	
	115	10.7	13.8	11.7	54.2	0.2	
	115	13.8	17.4	17.7	54.9	0.2	
	115	17.4	21.54	8.2	57.1	0.1	
	117	12.7	16.15	9.8	78.3		
	117	16.15	21.26	13.4	53.5	0.2	
	118	15	18.6	13.5	23.7	5	
	118	18.6	22.2	11.5	33	2.6	
	118	22.2	25.8	6.6	36.1	2.6	
	118	25.8	28.2	6.1	44.2	0.7	
	118	28.2	30.77	11.8	38.4	0.7	
	119	4.6	9.22	8.8	46.7	2.3	
	119	9.22	13	1.8	56.3	3.9	
	119	13	16.6	0.1	56.9	7.5	
	119	16.6	20.2	3.1	66.7	0.7	
	119	20.2	23.1	2.7	67.3	1.2	

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
110	22.1	26.1	0.6	65	3/
119	25.1	20.1	0.0	0.5	20.4
119	20.1	20.0	1.6	4.0	20.4
120	20.0	24.64	22.0	20.6	1.4
120	12.8	24.04	22.9	29.0	1.4
121	14.24	16.62	10.4	57.7	0.0
121	14.34	10.02	10.8	68.4	0.2
122	14	17.3	2.9	49	2.5
123	50.0	57.95	0.0	14.4	37.0
123	57.95	59.19	0.6	18.5	11
123	59.19	61.3	0.7	20.2	0.6
123	61.3	64.02	1.8	4.2	1.2
124	13	14.82	20.7	4.4	21
124	14.82	1/./	1.8	4.3	38.3
124	17.7	20.85	0.1	5.5	40.5
124	20.85	25.07	0.3	14.7	33.7
125	54.5	57.16	5.5	14.1	7.9
126	34.1	37.76	9.7	0.3	9.2
126	37.76	41.92	7.9	1.1	12
126	41.92	43.23	0.4	35.1	11
126	43.23	46.44	1.5	5.7	0.5
127	5	6.3	38	1.5	12.1
127	6.5	8.78	48	0.6	11
127	8.78	10.4	80.3	0.6	7.5
127	10.4	11.92	61.6	0.6	14.7
127	11.92	14.2	10.1	1.2	5.9
127	14.2	14.9	76.8	0.4	5.9
129	29.54	31.48	70.1	17.3	0.1
129	31.48	32.86	91.4	0.5	0.1
129	32.86	34.81	32.4	42.4	0.1
129	34.81	35.97	98.4	0.9	0.1
129	35.97	38.28	41.8	22.4	0.3
129	38.28	40.19	29.7	34.4	0.3
129	40.19	42.68	3	1.9	0.4
130	5	8.03			33
130	8.03	11.03			40.5
130	11.03	14			41.3
130	14	17			40.5
130	17	19.56			36.4
130	19.56	21.98			0.3
131	20.2	22.82	5.7	7.5	3.9
132	17.1	18.75	2	6.3	2.2

	<b>-</b>	<b>T</b> -	Constalling	Elso autos	<b>F</b> -
Hole Id	(m)	(m)	Cryolite %	Fluorite %	ге %
132	18.75	21.85	3.8	6.4	25
132	21.85	25.45	3.2	5.5	1.6
132	25.45	28.66	6.7	7.1	1
133	1.6	4.6	14.8	33.3	2.7
133	4.6	7.95	5.5	52.7	0.8
133	7.95	11	0.2	9.9	35
133	11	14.5	2.3	4	39
133	14.5	18	2.1	4.7	41.4
133	18	21.84	3.2	1.9	39.8
134	15	17	16.2	1.2	1.3
134	17	19.45	36.6	1.6	1.4
134	19.45	22.36	63.3	4	0.5
139	17	20.05	15.3	0.9	7.7
139	20.05	23.2	19	0.8	15
139	23.2	26.3	12.9	0.7	19.6
139	26.3	28.5	5.1	4.1	27
139	28.5	31.3	1.1	3	33.6
139	31.3	34.12	1.5	39.8	13.1
139	34.12	36.22	1	8.6	8.5
139	36.22	39.33	1.2	28	20.3
139	39.33	41.96	2.2	7.8	2.6
140	25	26	4.6	42.7	1.1
140	26	29.1	0.4	8.7	2.6
140	29.1	31.97	2.5	4.4	1.2
141	22	34.12	27	30.6	
141	34.12	38.17	17.1	64.1	0.2
141	38.17	41.14	5.1	71	0.1
141	41.14	44.34	5	65.1	0.1
141	44.34	48.2	1.5	11.3	1.7
141	48.2	49.67	1.9	20.8	1.4
142	14.4	18	10.8	29.4	0.7
142	18	21.6	11.6	38.4	0.5
142	21.6	25.68	11.8	63.1	0.2
143	19	22.6	28.7	23.2	1.1
143	22.6	26.2	18.1	24.4	0.5
143	26.2	29.8	14.6	47.1	0.2
143	29.8	33.4	16.9	28.4	0.6
143	33.4	37	4.1	14.6	0.6
143	37	40.6	7.9	22.8	0.5
143	40.6	44.2	10.9	71.7	
143	44.2	46.58	4.3	68.6	0.8
144	20	22.62	21.5	3.7	1.3
144	22.62	26	3.5	7.3	0.8
144	26	29.58	15.5	11	0.9

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
145	13.3	14.69	10.5	74.4	0.1
145	14 69	16.95	11	61.7	0.2
145	16.95	19.16	0.6	3.6	9.7
145	19.16	22.1	2	10.4	32.3
145	22.1	25	1.4	2	40.7
145	25	30.5	0.6	2.3	35.7
146	11	13.74	6.8	23.6	0.8
146	13.74	16.69	0.9	2.7	26.5
146	16.69	18.62	1.7	1.1	38.2
146	18.62	20.2	0.5	33.4	17.3
146	20.2	23.5	0.1	3.1	30.7
146	23.5	26	2	0.4	29.6
146	26	27.9	0.8	2.2	30.7
146	27.9	30.86	0.3	0.7	23.9
146	30.86	34.31	0.6	0.3	26.1
146	34.31	36.84	0.8	2.2	18.1
147	23.4	31.94	59.9	15.7	
147	31.94	38.07	8	61.3	
147	38.07	40.6	2.6	13.5	1.1
147	40.6	44.2	2.1	8.1	2.5
147	44.2	47.27	4.5	62.7	
149	18	21.6	21.9	30.9	0.4
149	21.6	25.2	14.3	25.1	0.7
149	25.2	28.62	15.5	27.7	0.5
149	28.62	32.4	21.9	57.4	0.2
149	32.4	36	13.2	69.2	0.1
149	36	38.86	5.3	41.2	0.2
150	5	7.92	0.3	6.3	35.3
150	7.92	12.3	2.1	2.5	34.6
150	12.3	15.4	2.3	8.3	30.1
150	15.4	17.85	0.2	3.1	24.6
150	17.85	19.75	0.5	0.6	22
153	9	12.07	1.8	4.5	42
153	12.07	15.02	1.3	9.5	38
153	15.02	17.87	0.6	9	38
153	17.87	20.95	0.8	4.1	38.4
153	20.95	24.96	0.1	5.9	26.3
154	13.5	15.89	31.7	0.5	29.9
154	15.89	17.64	9	33.7	7.7
154	17.64	21.04	2.6	6.5	41.7
154	21.04	25	3.4	4	42.6
154	25	28.7	4.7	5.1	40.5
154	28.7	32	2.2	3	42.1
154	32	35.78	2.6	1.9	42.6

	Hole Id	From	То	Cryolite	Fluorite	Fe
	454	(m)	(m)	%	<b>%</b>	%
	154	35.78	37.92	2.3	7.2	33.1
	155	13.36	15.55	98.4	0.6	0.2
	155	15.55	17.44	99.6	0.2	0.06
	155	17.44	19.25	99.1	0.3	0.3
	155	19.25	21	24	58.1	1.1
	155	21	23.15	2.2	15	1.4
	155	23.15	26	2	8.2	1.1
	155	26	28.08	2.2	4.7	1.3
	157	3.7	5.28	8.5	4	
	157	5.28	8.9	15.6	32.9	0.9
	157	8.9	12.5	14.7	22.6	1.4
	157	12.5	16.37	10.4	21	0.9
	157	16.37	19.62	0.4	5.2	15.8
	157	19.62	22.58	0.6	0.9	15.8
	157	22.58	25.58	0.7	0.6	23
	157	25.58	27.92	0.8	0.7	28
	157	27.92	30.7		0.2	33.6
	158	6.6	8.6	20.1	36.6	0.8
	158	8.6	12.77	7.7	21	0.4
	158	12.77	15.86	1.3	1.1	26
	158	15.86	18.86	0.9	1.7	28.2
2	158	18.86	21.57	0.6	0.4	28.8
	158	21.57	24.85	3.1	1.1	29.1
	158	24.85	27.86	0.4	1.1	34.1
	158	27.86	31.3		1.5	38.2
	158	31.3	34.65	1.2	1.2	35.3
	158	34.65	37.7	0.5	0.2	32
	161	5.7	8	12.6	35.7	0.7
	161	8	10.4	15	43.1	0.5
	161	10.4	13	3.2	30	0.6
	161	13	16.6	0.2	3	19.4
	161	16.6	19.6	1.2	2.7	22.3
	161	19.6	22.78	0.3	1.8	17.8
	161	22.78	26.17	1.3	0.5	30.4
	161	26.17	29.54	0.9	1.3	20.8
	161	29.54	33		0.3	25.8
	161	33	37		0.6	27.2
	161	37	40.56	0.5	0.8	25.8
	162	16.7	18.88			
	162	18.88	21.4	16.7	20.4	0.8
	162	21.4	25	14.6	29.9	0.5
	162	25	29.53	22.9	44.5	0.4
	162	29.53	32.45	4.5	79.2	0.4
	162	32.45	35.8	2.8	54.5	0.2

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
162	25.0	20.2	/0	61.9	0.2
102	20.2	39.5	4.1	72.0	0.5
162	39.3	41.53	3.5	72.9	0.2
162	45	45.41		24.6	17.4
162	/5.36	/5./2	0.6	31.6	6
162	75.72	76.33			20.6
162	77.42	79.98			5.8
162	79.98	82.7			2.3
162	90.07	92.16	1.7	48.2	0.8
163	17	18.22	35.2	0.1	11.4
163	18.22	21.36	21.5	0.1	0.8
163	21.36	24.25	16	0.3	1.8
164	11.25	13.75	15.8	48.5	0.2
165	6.8	11.59	11.2	64.7	0.1
165	37.5	40	0.8	1.7	39.4
165	40	42.5	1.8	4.1	36.2
166	6.2	9.4	13	48.1	0.3
166	9.4	11.95	6.7	61.9	
167	19	21.8	13.8	62.7	
167	21.8	25.4	11.8	54.9	
167	25.4	29	16.3	54	
167	29	32.39	3.9	76.2	
167	32.39	36.21	1.1	48.5	8
168	8.3	11.4	20	50.6	
168	11.4	14.45	4.1	58.1	0.2
169	2.8	8	20.7	41.1	0.7
169	8	12.6	11.2	32.5	1.6
171	3.8	6.8	2.3	7.6	37.1
171	6.8	10.4	3.9	11.5	24.8
171	10.4	12.8	0.5	4.4	32.4
171	12.8	15.29	0.7	3	27.7
172	5.3	7	17.7	58.4	0.5
172	7	9.75	16.2	65.9	0.3
172	9.75	13.6	8.7	42.7	1.5
173	3.6	4.68	50.2	38.4	0.2
173	4.68	5.17	11.1	36.7	0.9
174	8.7	10.5	22.7	49.9	0.3
174	10.5	11.5	1.1	32.8	3.2
174	11.5	14.5	0.7	12.6	1.6
175	9.94	11.94	27.9	33.2	0.2
176	24.8	27.82	1.9	7.7	2
176	27.82	30.5	2.9	11.5	1
176	30.5	31.5	2.9	9.5	0.8
177	23.2	31.14	26	35	
177	31 14	34 64	96	55.8	0.8
1//	31.14	57.04	5.0	55.0	0.0

	From	То	Cryolite	Fluorite	Fo
Hole Id	(m)	(m)	%	%	%
177	34.64	37.5	15.9	63.3	0.2
177	37.5	39.7	3.1	20.7	0.8
177	39.7	41.99	3.4	18.4	0.7
178	9.4	10.25	15.8	43.4	0.1
178	10.25	13	1.3	4	22.8
178	13	16.33		5.7	31.4
178	16.33	19.9	4.8	31	0.1
178	19.9	23.5		0.4	22.1
178	23.5	27.2	0.7	0.6	30.4
179	18.4	21.4	16.6	29.8	0.8
179	21.4	23.86	10.4	35	0.6
180	11	13.05	44.2	32.6	0.3
180	13.05	15.24	16	56.8	0.1
181	10	12.52	85.6	6.9	0.2
181	12.52	15	44.7	31.6	0.7
181	15	18.52	21.2	44.2	1.1
182	8	10.21		7.2	30.6
184	1	3.53	5.2	0.6	32.2
184	3.53	6.39	2.9	1.1	31.8
185	15.4	16.01	67.2	19.5	0.4
185	16.01	17.95	53.6	19.4	0.5
185	17.95	21.11	20.5	28.3	0.8
185	21.11	22.6	19.9	15.8	0.4
185	22.6	26.97	54.4	43.1	0.4
185	26.97	30.05	6.4	89.3	0.1
185	30.05	34.46	4.1	60.6	0.2
185	34.46	37.2	2.2	76.9	0.1
185	37.2	41.49	4.5	80.5	0.1
185	41.49	44.82	3.3	42.8	0.1
186	17.5	20.6	69.7	10.9	1.5
186	20.6	23	33.4	26.5	0.8
186	23	27.1	50.8	10.9	1.4
186	28.28	31.15	26.2	37	0.8
187	11.5	13.13	15		
187	13.13	15	86.5	0.1	0.1
187	15	17.8	72.6	10.9	1.6
189	18.6	22.26	51.2	1.2	1
189	22.26	25.26	22.3	1.8	2
189	25.26	28.69	19.8	1.6	1.6
189	28.69	31.68	37.9	0.3	1.6
189	31.68	35.1	29.9	0.4	2.3
189	35.1	38.59	28.3	5.3	1.9
189	38.59	40.38	1.9	3.9	2.8
190	14	17.8	31	14.4	6.3
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Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
190	17.8	20.34	51	2.9	7.9
190	20.64	24.3	6.6	4.2	2.7
191	10.8	15.8	16.9	71.7	0.1
191	15.8	19.4	19.8	68.6	0.1
191	19.4	21.94	3.8	75.6	2.8
191	21.94	25.6	1.6	5.3	35.7
191	25.6	29.2		9.7	34.9
191	29.2	32.69	1.7	16.9	31.7
192	6.6	10	47.6	1	1.3
192	10	13.6	25.6	0.5	1.9
192	13.6	20.5	20.1	1.4	1.9
192	20.5	27.48	8.9	1.7	2.2
192	27.48	34.75	12.6	3.6	2.3
194	7	9.06	11.1		1.5
194	9.06	12.77	14.3		1.8
194	12.77	16.45	27.5		1.8
194	16.45	19.08	19.3		1.9
194	19.08	33.5	12.9		
196	7.6	10.84	53.5	0.4	8
196	10.84	12.1	28.3	5	14.5
196	12.1	14.99	25.9	7.9	10.3
196	14.99	17.19	18.8	3.2	2.5
197	24.3	29.35	4.6	5.3	2.4
198	26.05	27.02	54.6	2.1	1.6
198	27.02	30	7	5.8	2.6
198	30	33.05	25.6	0.2	1.8
198	33.05	36	36.9		1.6
198	36	38.95	35		2
198	38.95	41.8	10.6	0.4	7
199	5.7	7.3		0.4	19.5
199	7.3	10.3	3.9	6.8	7.8
199	10.3	13.3	1.5	5.4	8.4
199	13.3	16.3	2.9	9	2.4
199	16.3	19.3	5.2	9.3	1.4
199	19.3	22.45	17.7	9.4	1
199	22.45	25	7.7	9.4	1.1
200	7	10.25	8.6	18.5	10.2
200	10.25	11.75	5.6	5.5	1.9
200	11.75	14.95	11.5	33.1	4
200	14.95	19	5.1	7.1	0.8
200	19	22	16.1	9.1	1
200	22	25	9.8	7.1	1.2
201	51.18	54.15	6.8	1.1	3.3
201	54.15	56.59	12.4	1.1	2.7

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
201	56.59	60.6	30.5	0.1	1.6
201	60.6	63.01	17.2	1.2	2.1
201	63.01	66.1	31.7	0.9	1.6
201	66.1	69	23.6	0.9	1.5
201	69	71	11.3	0.5	1.3
201	71	73.25	34.2	0.6	3.5
202	54.85	57.45	1.5	1	3.3
202	57.45	60.3	2	1	3.4
202	60.3	64.35	19.2	0.2	3
202	64.35	67.45	7.7	0.1	2.3
10_85	0	2	12.5	60.5	0.2
10_85	2	4	10	75.5	0.2
10 85	4	6.45	12	57.2	0.2
11_85	0	2.35	21.3	43.9	0.2
11 85	2.35	4.7	4.4	74.7	0.3
11 85	4.7	6.25	5.7	50.1	0.3
11 85	32.35	36	2.2	6.1	32.2
11 85	36	38.45	1.3	0.6	32.2
11 85	38.45	40.7	1.3	1.6	26
11 85	40.7	41.6	4	2.7	3.1
12 85	0	3	13.4	63.2	0.1
12 85	3	5.35	18.3	22.7	0.5
13 85	0	0.55	71.6	13.9	0.5
13 85	0.55	3	13.2	64.5	0.3
13 85	3	5	12	70.1	0.2
13 85	20	23	2.2	2.1	31.4
13 85	23	26.5	1.5	1	29.9
13 85	42.1	44		2.5	17.6
13 85	44	44.5	1.7	1	5.4
13 85	45.95	46.45	0.7	0.7	4
14 85	0	3.3	12.5	37.6	1.1
14 85	4.9	5.9	16.4	46.9	0.1
14 85	13.8	18	1.1	1.5	27
14 85	18	21.7		5.2	24.1
14 85	26	30	18	1	30.4
14 85	30	33			32.8
14 85	33	35.7			20.5
15 85	0	3	10.1	51.3	0.5
15 85	3	6	11.2	66.5	0.2
15 85	6	9	16.8	40.7	0.3
16 85	0	0.3	90	10.7	5.5
16.85	0.3	2.5	26.5	27.1	0.2
16.85	2	6	12.0	<u></u>	0.2
17 85	0	25	12.2	55.2	0.1
17_85	0	2.5	13.3	55.3	0.2

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
17_85	2.5	5	14.3	34.5	0.2
18_85	0	2	16.8	56.2	0.2
18_85	2	4	18.4	57	0.2
18_85	4	6	15.5	44.8	0.2
18_85	21.25	25	2.8	2.6	41
18_85	25	28	2	2.4	37.8
18_85	28	30.15			35
18_85	30.15	33.6			27.5
19_85	0	2	20.4	42.3	0.4
19_85	2	4.4	25.5	36.2	0.3
19_85	15.1	18	2.4	3.2	41
19_85	18	21	2.1	1.7	42.8
19_85	21	24	0.9	3	39.4
19_85	24	27	1.5	4.2	33.6
19_85	27	29.6	1.1	9.5	34
19_85	29.6	31.5	0.5	5.1	13.4
2_85	0	3	10.4	60.7	0.4
2_85	3	6	7.3	65.3	0.3
20_85	0	2.5	26.2	44.5	0.3
20_85	2.5	5	23	38.2	0.2
20_85	14	16	1.9	7.6	32.9
20_85	16	20	2.9	2.1	42.4
20_85	20	22.9	1.5	2.2	39.5
20_85	24.38	27.95		2	29.4
21_85	0	1	16.5	16	1.3
21_85	9	12			31.6
21_85	12	14.2			26.3
21_85	18	18.8			31.6
21_85	19.3	23.1	0.1	1.3	35.5
21_85	23.6	26.05	0.2	0.3	27.2
22_85	0	1.45	6.7	47.2	1
22_85	18.75	22	2.5	1.7	33
22_85	22	25	2.6	3.2	40.6
22_85	25	28	2.1	1.5	42.4
22_85	28	31.7	0.1	0.4	33.8
23_85	0	2.45	3.2	75.6	0.9
23_85	2.45	4.9	1.4	22.7	1.6
23_85	27.5	30	0.5	6.5	15.2
23_85	30	33	1	0.4	20.3
23_85	33	36	3	4.9	25.6
23_85	36	40	1.7	4.7	21.3
24_85	0	2	4.9	25.8	0.9
24_85	2	4	11	26.4	1.6
24_85	4	6	0.3	12.4	21.9

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
24_85	6	9.6	16.1	7.4	1.8
24_85	9.6	11.65	0.7	27.2	8.1
24_85	11.65	16	0.9	1.6	21.5
24_85	16	20	0.8	0.4	27.4
24_85	20	24	0.8	0.2	25.4
24_85	24	26.45			22.3
25_85	0	1.45	4.8	34.5	13.8
25_85	1.45	4		13.1	29.4
25_85	4	6	11.3	47.8	2.8
25_85	6	8.5	5.9	26.5	15.7
25_85	8.5	10.15	1.3	5.8	23.4
25_85	10.15	12.4	2.8	45.7	1.1
25_85	12.4	14.55		11.4	8
25_85	14.55	19.6	5.3	0.8	6.9
25_85	19.6	22.7	2.8	1.3	17.7
25_85	22.7	26.8	0.6	0.9	31.8
26 85	0	1.55	8.9	40.3	2.3
26 85	1.55	3.8	7.4	17.8	12.5
26 85	3.8	7.15	11.1	31.5	6
26 85	7.15	10.55	6.1	34.3	4.6
26 85	10.55	12.7	8.9	43.4	2.3
26 85	12.7	15.5	1.2	1.9	16.1
26 85	15.5	20.1	0.6	2.1	18.1
26 85	20.1	23.3	0.4	0.7	18.6
26 85	23.3	26.4	1.5	1.2	18.8
26 85	27.05	29	9.1	0.9	14.8
26 85	29	32		0.8	29.6
26 85	32	36		0.6	20.6
27 85	0	3	22.2	57.9	0.5
27 85	3	6	19.9	45.2	0.8
27 85	6	10	3.6	1.9	30.7
27 85	10	14	7.8	1.6	38.7
27 85	14	18	1	2.3	33.6
27 85	18	22	2.1	2.1	26.5
27 85	22	26.2	0.9	2.7	28.8
27 85	26.2	28.15		0.4	37
28 85	0	2.5	10.4	59.1	0.7
28 85	2.5	5	9.9	54.3	0.6
28 85	5	7.5	3.1	57	2
28 85	7.5	10.15	5.2	56.4	1.3
28 85	14.95	19.2	1.2	21.6	4.1
28 85	25.6	30	0.7	1.6	27.8
28 85	30	33	1.1	0.4	30.8
28 85	33	36	0.2	0.4	24.6
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Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
29.85	0	3	11.7	17.2	11
20 85	3	65	3.8	62	1.1
29_05	65	0.5	0.2	8.2	20 /
29_05	0.5	9.4	0.2	0.2	1.6
29_05	9.4	14.1	2	12	20
29_85	14.1	14.1	0.5	72.0	29
29_85	14.1	15.75	1.4	/3.8	2.8
29_85	15.75	20	2.4	2	40.6
29_85	20	24	1.6	2.7	29.9
29_85	24	28	2.5	2.6	38.1
29_85	28	32	1.3	0.3	29.3
29_85	32	36.4	0.2	0.3	29.6
29_85	37.1	39	1.4	0.8	18
3_85	0.85	3	11.8	49.6	0.3
3_85	3	6	9.3	65.7	0.2
3_85	6	8.85	17	36.1	0.3
30_85	0	2.15	21.2	57.1	0.4
30_85	2.15	4.65	5.7	79.7	0.5
31_85	0	3	10.2	72.7	0.4
31_85	3	5.35	6.2	79	0.3
32_85	0	2	9.4	37	0.9
32_85	2	4	16	56.6	0.3
32_85	4	6.8	8.5	56	0.4
32_85	9.45	10.7	3	48.9	1.8
32_85	10.7	25	N/S	N/S	N/S
32_85	25	28.4	2	3	34.8
33_85	0	1.55	18.4	37.7	1.7
33_85	1.55	4	4.3	9	20.9
33_85	4	6.55	2.8	6	26.9
33_85	6.55	9		7.7	23.1
33_85	9	12	0.1	4.7	25.1
33_85	12	14.2		19.7	23.4
33_85	14.2	18	3.9	2.3	22.4
33_85	18	20.3		1	26.7
33_85	20.3	24	0.3	1.8	19.5
33_85	24	27.9		3.1	22
33 85	28.2	31.6		1	25
34 85	0	2	8.3	73.8	0.5
34 85	2	4	3.4	71.7	0.3
34 85	4	6.65	1.9	76.6	0.8
34 85	28.8	32.5	1.4	3.3	31
34 85	32.5	36.6	1.3	4.1	33
34 85	36.6	39.15	0.8	2.8	7
34 85	39.15	39.7	2.7	3.8	1.3
35 85	0	3.5	0.6	1.6	25.4
	Ū	5.5	0.0	1.0	20.7

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
35 85	3.5	6.5	2.8	11.5	30
35 85	6.5	10	0.7	8.6	30.8
35 85	10	14	0.4	7.8	31.6
35 85	14	15.5		1.7	25.8
35 85	15.5	18.9	1.1	2.7	6.9
35 85	20.6	22.4	0.7	3.7	25.4
35 85	22.4	23.6	3.6	1.6	7.2
35 85	23.6	27	0.8	2.6	23.6
35 85	27	30.55	0.7	0.5	30.6
35 85	31.25	34	0.6	0.8	21
35 85	34	36.6	7.6	1.6	11.1
36 85	0	2	12.8	41.6	1.6
36.85	2	4.3	8.7	53.2	0.9
36.85	43	8	0.7	17.4	18.6
36 85	8	12		14.7	22
36.85	12	16	0.7	17	29.8
36.85	16	20	1 1	13	39.8
36.85	20	20	1.1	0.6	37
36.85	24	27.25	15	0.6	29
36.85	27 25	31	1.5	0.5	16.4
36.85	31	25 25		2.2	14.6
37.85	0	33.35	6	2.2	14.0
37.85	3	6	16	0.4	33.2
37 85	6	9	18	8.2	38.6
37.85	9	13	0.8	0.2 g	30.0
37 85	13	18	1.8	53	12.2
37.85	18	23 /	1.0	12.7	31 /
38.85	0	23.4	20.8	0.6	30
38 85	2	1	16.2	0.0	27 /
20 0E	2	6.2	E 2	0.7	11
30_05	4 60	11 /	5.2	0.0 8.6	5c 4T
20 05	11 /	12 55	0.8	0.0 /12 0	15 7
20 05	12 55	10	1	+3.2 15 E	2/ 1
20 0E	10	21 55		10.5	54.1 25
20 0F	10 21 EF	21.55	0.0	10	30
20 05		20.05	0.9	9.2	29.0
39_85 20.85		1.95	3.0	59.0 F 7	1.9
39_85	1.95	4.15	1.2	5./	39.4
39_85	4.15	7.5	12.0	5.4	29.8
4_85	0	2.5	13.9	50.7	0.9
4_85	2.5	5	12.5	46.7	0.8
4_85	8.5	12	3.9	5.9	28
4_85	12	16	1.1	3.8	26
4_85	16	20	2.3	0.5	26.4
4_85	20	24	1.2	2.1	34.8

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
4_85	24	28	2.2	3.7	37.2
4_85	28	30.85	0.4	1.5	33.4
4_85	30.85	34			28.2
4_85	34	37.85			21.9
4_85	37.85	40.45			14.5
4_85	40.45	41.9			25.3
4_85	41.9	44.9			3.1
40_85	0	1.3	8.5	0.6	30
40_85	1.3	5	5.1	0.9	28.5
40_85	5	8.9	0.9	8.3	35.9
40_85	8.9	10.55	0.7	2.3	31.2
40_85	12.85	17	3.7	1.5	28.8
40_85	17	20	0.1	0.5	26.4
40_85	20	22.9		0.5	22.6
41_85	0	2.3	39.5	22.4	22.4
41_85	2.3	5.45	0.8	6.5	6.5
41_85	5.45	8.5	2.9	1.2	1.2
41_85	8.5	10	1.2	6.3	6.3
41_85	10	13.2	1.8	3.2	2.8
42_85	0	3	17.8	38.6	0.1
42_85	3	6	12.9	28.7	0.8
42_85	6	8.1	4.1	29.5	1
42_85	40	45.8	0.9	0.6	29.4
42_85	45.8	49	1.2	1.7	4.9
43_85	0	1.85	10.5	3.2	34.4
43_85	5.4	6.5	3.9	22.5	23.8
43_85	9.5	13.4	0.5	3.1	26.2
43_85	24.15	28	0.8	4.1	16.6
44_85	0	1.1	24.2	32.8	1.2
44_85	1.1	3.7	16.6	39	1.3
44_85	3.7	5	0.9	9.8	34.8
44_85	5	5.7	16.6	37.5	9
5_85	0.3	1.2	10.3	17.1	2.5
5_85	1.2	4.45	1.3	11.2	32.6
5_85	4.45	7.7	0.8	9.9	32.9
5_85	10.2	12.2	4.5	39.5	1.4
5_85	12.2	13.6		14.9	13.2
5_85	13.6	16.55	1.1	0.6	20.4
5_85	16.55	18.45	0.7	0.8	30.6
5_85	18.45	20.75	0.4	1.3	23.8
5_85	21.35	22.6		0.7	27.6
5_85	22.6	26.8			13.1
5_85	26.8	29.8	0.9	0.6	20
6_85	0	1.15	20.8	40.7	1.4

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
6 85	1.15	3.5		22.2	15.7
6 85	3.5	6	0.3	23.7	12.8
6 85	6	8.5	1.3	4.3	33.4
6 85	8.5	10.6	0.3	8.7	28
6 85	10.6	13			21.9
6 85	13	16.5			26.6
6 85	16.5	20			35.2
6 85	20	24			28.3
6 85	24	28		7.5	31.2
6 85	28	31.6			35.9
6 85	31.6	32.45			31
6 85	32.45	33.8			31.1
6 85	33.8	36			29
6 85	36	38			28.8
6 85	38	42			16.5
6 85	42	45			4.3
6.85	45	47.6			4.8
7.85	0	0.8	3.1	2.1	37.4
7 85	0.8	3 75	13.4	39.9	4
7 85	3 75	7	13.4	19	30.8
7 85	7	10		10.3	37.4
7.85	10	13	0.6	10.7	36.6
7_05	13	16.65	1.4	9.2	38.6
7_05	16.65	10.05	1 1	8.4	27.6
7_05	10.05	22.0	1.1	0.4	1/ 9
7_05	22.0	22.0			28.0
7_05	22.0	25			0.7
7 05	25	27.0			27 4
0 0E	27.8	25	12.0	EQ /	0.0
0_0J	25	5.5 6.75	7.6	50.4 69.1	0.9
0.05	0.0	2.75	12 6	50.1 57 7	0.4
0 0E	0.4 2.75	6.75	15.0	57.7	0.0
<u>دہ_د</u> در	3.73	15 4	4.0	50.0	0.3
21	15.5	10	12.6	24.3 71.0	0.3
<u>در</u> در	10	73 6	12.0	62.0	0.2
12	13	22.0	13.5	03.8 F2.C	0.3
13	22.0	20.2	12.5	53.0	0.4
13	20.2	29.8	13.0	52.1	0.4
J3	29.8	34.27	0.3	51.9	0.3
J/	38	40.9	29.4	0.6	26
J/	40.9	44.31	6./	0.5	42.6
J/	44.31	45.94	18.5	0.9	30.2
J7 	45.94	49.42	0.3	11.2	35
J7	49.42	53.45	0.7	3.9	22.8
J7	53.45	57.4	1.8	3.3	37.8

Hole Id	From (m)	To (m)	Cryolite %	Fluorite %	Fe %
J7	57.4	61.04	2	4	17.8
J7	61.04	64.96	2.1	1.4	31.4
8L	4	6.5	74.2	0.2	7.4
8L	6.5	9.1	92.2	1.9	1.3
8L	9.1	11.15	10	25.4	8.2
8L	12.85	16.23	13.3	9.5	10



### APPENDIX C: IVITTUUT DRILL ASSAYS

Cu	Zn.	Ph'	
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Ŋ	Hole Id	From (m)	To (m)	Cu %	Zn %	Pb %
	30	5	8.03	0.06	1.9	0.05
	130	8.03	11.03	0.06	4.2	0.05
	130	11.03	14	0.6	1.9	0.05
	130	14	17	0.04	2	0.05
	130	17	19.56	0.06	4.3	0.05
	131	20.2	22.82	0.26	1.7	0.47
	139	17	20.05	0.25	1.1	1.4
	139	20.05	23.2	0.08	0.4	0.72
	139	23.2	26.3	0.23	0.6	0.54
	139	26.3	28.5	0.28	1.5	1.6
	139	28.5	31.3	0.53	1.2	0.91
	146	23.5	26	0.04	2.5	0.09
	146	26	27.9	0.06	1.8	0.07
	146	27.9	30.86	0.06	2.4	0.05
	146	30.86	34.31	0.05	3.7	0.07
	146	34.31	36.84	0.06	2.2	0.08
	150	5	7.92	0.04	2.8	0.05
	150	7.92	12.3	0.04	3.1	0.05
	150	12.3	15.4	0.04	3.2	0.05
	150	15.4	17.85	0.04	3.5	0.05
	150	17.85	19.75	0.07	6.9	0.05
	153	12.07	15.02	0.04	1.7	0.05
	153	15.02	17.87	0.06	2.2	0.05
	154	35.78	37.92	1.7	5.5	7.7
	157	16.37	19.62	0.05	3.4	0.18
	157	19.62	22.58	0.04	4.7	0.05
	157	22.58	25.58	0.04	3.5	0.05
	157	25.58	27.92	0.04	2.9	0.05
	157	27.92	30.7	0.04	3.3	0.05
	158	24.85	27.86	0.05	3.3	0.05
	158	27.86	31.3	0.09	2.7	0.05
	158	31.3	34.65	0.06	1.4	0.05
	158	34.65	37.7	0.07	3.3	0.05
	161	22.78	26.17	0.04	0.86	0.15
	161	26.17	29.54	0.04	3.5	0.1
	161	29.54	33	0.04	2.4	0.05
	161	33	37	0.04	4.6	0.05
	161	37	40.56	0.04	2.2	0.05
	162	45	45.41	7.7	18.2	13.1

Hole Id	From (m)	To (m)	Cu %	Zn %	Pb %
162	75.36	75.72	0.3	2.3	0.65
162	75.72	76.33	8.7	12.5	15.4
162	77.42	79.98	0.44	3.7	0.69
162	79.98	82.7	0.13	1.9	0.16
178	19.9	23.5	0.04	1.1	0.08
178	23.5	27.2	0.04	0.35	0.05
11_85	36	38.45	0.04	0.8	0.19
11_85	38.45	40.7	0.05	1.4	0.57
11_85	40.7	41.6	0.04	10	0.08
13_85	31.1	32.25	0.04	0.4	0.05
13_85	39.85	42.1	0.04	2	0.05
13_85	42.1	44	0.1	4	0.08
13_85	44	44.5	0.06	16.3	0.05
13_85	45.95	46.45	0.04	12.6	0.05
14_85	30	33	0.04	1.2	0.05
14_85	33	35.7	0.04	1.7	0.07
18_85	28	30.15	0.1	3.1	0.05
18_85	30.15	33.6	0.04	1.3	0.06
20_85	20	22.9	0.04	1.6	0.05
20_85	24.38	27.95	0.07	2.7	0.08
21_85	9	12	0.04	0.5	0.05
21_85	12	14.2	0.04	1.5	0.05
21_85	18	18.8	0.04	1.3	0.05
21_85	19.3	23.1	0.07	3.3	0.05
21_85	23.6	26.05	0.07	3.1	0.06
22_85	28	31.7	0.07	4.4	0.05
23_85	27.5	30	0.04	2.7	0.26
23_85	30	33	0.06	3	0.05
23_85	33	36	0.04	3.6	0.05
23_85	36	40	0.04	1.7	0.05
24_85	6	9.6	0.12	4.1	0.11
24_85	9.6	11.65	0.04	2	0.1
24_85	11.65	16	0.07	2.8	0.18
24_85	16	20	0.04	1.7	0.05
24_85	20	24	0.06	2	0.05
24_85	24	26.45	0.08	4.6	0.05
25_85	14.55	19.6	0.08	3.3	0.05
25_85	19.6	22.7	0.04	1.1	0.05
25_85	22.7	26.8	0.04	2.1	0.05

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Hole Id	From (m)	To (m)	Cu %	Zn %	Pb %
26_85	12.7	15.5	0.09	2.8	0.05
26_85	15.5	20.1	0.09	5.6	0.05
26_85	20.1	23.3	0.04	3.4	0.05
26_85	23.3	26.4	0.04	1.8	0.05
26_85	27.05	29	0.04	1.6	0.05
26_85	29	32	0.04	2.6	0.05
26_85	32	36	0.04	1.8	0.05
27_85	26.2	28.15	0.05	1.1	0.05
28_85	30	33	0.04	0.4	0.05
28_85	33	36	0.04	0.5	0.05
28_85	36	39.6	0.04	0.8	0.07
29_85	28	32	0.04	1	0.05
29_85	32	36.4	0.05	2.9	0.05
29_85	37.1	39	0.07	1.3	0.05
33_85	18	20.3	0.04	2	0.56
33_85	20.3	24	0.07	2.9	0.08
33_85	24	27.9	0.08	5.4	0.1
33_85	28.2	31.6	0.04	2.1	0.05
34_85	39.15	39.7	0.08	2.7	0.13
35_85	6.5	10	0.04	0.8	0.05
35_85	10	14	0.06	1.6	0.22
35_85	14	15.5	0.07	3.7	0.05
35_85	23.6	27	0.04	2.4	0.05
35_85	27	30.55	0.04	2.3	0.05
35_85	31.25	34	0.04	2.1	0.05
35_85	34	36.6	0.04	1.8	0.05
36_85	27.25	31	0.04	1.6	0.05
36_85	31	35.35	0.04	2.1	0.05
37_85	0	3	0.04	1	0.05
37_85	3	6	0.16	1.8	0.31
37_85	6	9	0.04	1.3	0.05
37_85	9	13	0.04	1.4	0.05
37_85	13	18	0.04	0.3	0.05
37_85	18	23.4	0.04	2.6	0.05
38_85	2	4	0.26	1	1.5
38_85	4	6.2	0.04	0.5	0.15
38_85	6.2	11.4	0.04	0.8	0.05
38_85	11.4	13.55	0.04	2.7	0.05
39_85	4.15	7.5	0.06	1.8	0.1
4_85	30.85	34	0.04	1.5	0.15
4_85	34	37.85	0.04	2.4	0.07
4_85	37.85	40.45	0.04	0.9	0.11
4_85	40.45	41.9	0.04	4.4	0.05
4_85	41.9	44.9	0.06	7.4	0.23

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Hole Id	From (m)	To (m)	Cu %	Zn %	Pb %
40_85	0	1.3	0.04	4.2	0.21
40_85	1.3	5	0.04	2.3	0.09
40_85	5	8.9	0.04	1.5	0.05
40_85	8.9	10.55	0.04	3.2	0.5
40_85	12.85	17	0.04	4.5	0.05
40_85	17	20	0.04	2.8	0.05
40_85	20	22.9	0.06	4.9	0.07
41_85	0	2.3	0.04	1.4	0.16
42_85	40	45.8	0.04	0.9	0.05
42_85	45.8	49	0.04	2	0.12
43_85	5.4	6.5	0.22	1.8	3.8
43_85	9.5	13.4	0.04	2	0.28
43_85	24.15	28	0.04	2.8	0.08
5_85	13.6	16.55	0.07	6.4	0.05
5_85	16.55	18.45	0.04	2	0.05
5_85	18.45	20.75	0.07	5.3	0.05
5_85	21.35	22.6	0.04	3.9	0.05
5_85	22.6	26.8	0.04	2.3	0.05
5_85	26.8	29.8	0.8	4.7	0.11
6_85	10.6	13	0.04	1.8	0.26
6_85	13	16.5	0.08	3.2	3.2
6_85	16.5	20	0.04	1.8	0.1
6_85	20	24	0.04	1.9	0.28
6_85	24	28	0.05	2.1	0.35
6_85	28	31.6	0.04	1.7	0.16
6_85	31.6	32.45	0.04	5.4	0.05
6_85	32.45	33.8	0.04	1.1	0.05
6_85	33.8	36	0.04	3.4	0.12
6_85	36	38	0.05	2.7	0.06
6_85	38	42	0.04	1.9	0.15
6_85	42	45	0.04	1.1	0.17
6_85	45	47.6	0.05	2.8	0.14
7_85	16.65	19	0.04	1	0.05
7_85	19	22.8	0.04	1.6	0.12
7_85	22.8	25	0.08	3.1	0.05
7_85	25	27.8	0.04	1.2	0.1
7_85	27.8	32.1	0.09	2.8	0.1
J8	9.1	11.15	0.44	1.7	2.3
18	12.85	16.23	0.21	3.1	0.9



#### Appendix D

JORC Code, 2012 Edition – Table 1 report

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement	Diamond drilling completed within the pit area, totalled approximately 8,100m with 98% of core still available in Greenland with core from two other diamond holes located in Denmark (refer to Appendix 1).
$\mathcal{D}$	tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc).	Sampling intervals were based on cryolite and fluorite present within the core – intervals averaged 3m.
	limiting the broad meaning of sampling. Include reference to measures taken to	Histogram of Interval Length
	ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	175 -
0	Aspects of the determination of mineralisation that are Material to the Public Report	135 - <u>¥</u> 0 100 -
	In cases where 'industry standard' work has been done this would be relatively	75 -
	simple (eg 'reverse circulation drilling was used to obtain 1 m 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	All information regarding the project has been downloaded from the Geological Survey of Greenland
5	inherent sampling problems. Unusual	and Denmark (GEUS). ECLIPSE METALS LTD

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Criteria	JORC Code explanation	Commentary
	commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Drill samples were analysed for Cryolite, Fluorite and Iron. Assays results are given as a percentage.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	All information sourced from the literature has stated approx. 19,000m diamond drilling was completed. No details of the drilling methods have been identified in the historic data. From the information reviewed there was no information regarding core orientated or down hole surveys taken during drilling programs. Most of diamond drill hole were drilled vertically into the pit.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No information has been provided if the drilled metres were weighted with no sample recovery numbers given within the reports.
	Measures taken to maximise sample recovery and ensure representative nature	Core recovery/sample data – yet to be determined.
	of the samples. 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.	Relationship between sample recovery and grade is unknown – no information has been stated within the historical reports.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining	Geological logging was completed over all drill holes. The geological logs appear to be relatively qualitative and quantitative in nature.
	studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections loaaed.	No photos were available in the reports.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Historical approach was to sample where cryolite was over 20% within the core - some core has been sawn in half and some quartered. No details have been provided of the sub-sampling or sample
	1	24

Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	preparation methods. Based on the absence of data, no comment can be made on the appropriateness of the sample preparation techniques historically undertaken.
	For all sample types, the nature, quality and appropriateness of the sample	No evidence of control/procedures adopted for sub-sampling stages.
	preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise	Specific Gravity measures were also taken for certain core intervals. An average value of 2.95 was used for specific gravity for the cryolite and fluorite zone. No duplicate samples have been stated within historical reporting or whether the samples are appropriate for the material sampled
	Measures taken to ensure that the sampling is representative of the in situ	
5	material collected, including for instance results for field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to the grain size of the material being sampled	
Quality of assay data and	The nature, quality and appropriateness of	All assaying and determination of cryolite / fluorite was carried out by the owner/operator on the
laboratory tests	the assaying and laboratory procedures used and whether the technique is considered partial or total	mine site at the time. Internal company quality control assurance has not been documented within the reports.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the	Base metal assays were carried out by Outokumpo Oy mining consultants in Finland
9	parameters used in determining the analysis including instrument make and	No information has been supplied regarding duplicates and laboratory checks.
	model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures	No information provided regarding quality control procedures adopted by the various exploration companies.
	adopted (eg standards, blanks, duplicates, external laboratory checks) and whether	
	acceptable levels of accuracy (ie lack of bias) and precision have been established.	
		25

Verification of sampling and assaying       The verification of significant intersections by either independent or alternative company personnel.       Based on historical results reported, verification of significant intersections has been completed as per Table 1 of the announcement         The use of twinned holes.       Documentation of primary data, data entry procedures, data verification protocols. Discuss any adjustment to assay data.       There is no evidence of twinned holes in the project area.         Documentation of primary data, data entry procedures, data verification protocols.       Documentation of primary data, data entry procedures, data verification protocols have been completed.         Historical data was sourced from reports lodged to the Greenland authorities.       Historical data was sourced from reports lodged to the Greenland authorities.         Image: Discuss any adjustment to assay data.       Discuss any adjustment to assay data.       Discuss any adjustment to assay data.         Image: Discuss any adjustment to assay data.       Discuss any adjustment to assay data.       Historical results reported, verification of ignificant intersections have been completed.         Image: Discuss any adjustment to assay data.       Discuss any adjustment to assay data.       Historical data was sourced from reports lodged to the Greenland authorities.         Image: Discuss any adjustment to assay data.       Image: Discuss any adjustment to assay data.       Image: Discuss any adjustment to assay data.         Image: Discuss any adjustment to assay data.       Image: Discuss any adjustment to assay data.	Criteria	JORC Code explanation	Commentary
	Criteria Verification of sampling and assaying	JORC Code explanation The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Commentary Based on historical results reported, verification of significant intersections has been completed as per Table 1 of the announcement There is no evidence of twinned holes in the project area. Documentation of primary data, data entry procedures, data verification protocols have been completed. Historical data was sourced from reports lodged to the Greenland authorities.

Criteria	JORC Code explanation	Commentary
Location of data points	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. Specification of the grid system used. Quality and adequacy of topographic control	Location and values of analytical data verified on historic cross sections All drill holes collars were reported as being located on a local grid system. Adequate topographic control has been completed by digitizing the pit through surveyed cross section to form a 3D Model A total 262 survey points were digitized from the pit survey plan included in GEUS 20335; capturing X, Y and Z coordinates. Additional survey points and pit profile lines were digitized as each data source appeared to have a different interpretation of the pit surface particularly at the base of the pit where undercut mining had taken place. Digitized survey points, where available, took precedence over the other data
		27

Criteria	JORC Code explanation	(	Commentary
		Plan View	Plan View
Data spacing and distribut	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	Drill Holes are spaced between 10 and 15m Data spacings and distribution at this stage a or Ore Reserve, as the quality of the drill ho Sample compositing has been applied as cr drill intervals. In some cases, iron has bee observed within the core.	apart within the pit area. are not satisfactory for estimation of a Mineral Resource le data precludes its use for these estimations. yolite, fluorite and iron have been assayed in the same n assayed individually based on the amount of siderite
Orientation of data in relat to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	Most holes were drilled vertically to obtain g inclined to sample mineralisation in the pit v No information is known if the core sampling bias.	geological and structural information; some were steeply walls. g in the historic campaigns has introduced any significant

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	No information relating to the sample security have been identified.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No details observed on any previous sampling reviews or audits. Its assumed that industry standard practices and procedure were implemented at that time.

### 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	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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	MEL27007-45 has been transferred to Eclipse Metals Limited. The total area of the MEL is 50 sq km. No current security over the tenure
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	GEUS Report File No. 20236 The Planning of the Ivigtut Open Pit of Kryolitselskabet Oresund A/S - Mining of the Flouritic Orebody"; Outokompu OY Mining Consultants, 1987. This report provided 18 cross sections showing drill traces with cryolite (kry), fluorite (fs) and siderite (sid) values together with pit profiles, resource blocks and tabulated tonnage estimates on each section with an SG of 2.95.
		GEUS Report File No. 20238 "The Planning of the lvigtut Open Pit of Kryolitselskabet Oresund A/S – Report of the First Phase, Investigation of the Quantity and Quality of Extractable Ore from the lvigtut Open Pit"; Outokompu OY Mining Consultants, 1986. This report contained 23 sections showing drillhole traces and contoured cryolite/fluorite grades with an overlay of resource blocks. These sections were used to check positions of drillholes relative to those shown in the above report (GEUS 20236). Resource tonnages are provided.
		29

Criteria	JORC Code explanation	Commentary
		GEUS Report File No. 20335 Kryolitselskabet Oresund A/S, De Resterende Mineralreserver I Kryolitforekomsten Ved Ivigtut, Ultimo 1987" This report is the most useful of the reports. It provides: - Drillhole location plan - Complete cross section locations - Pit survey points - Plans of underground and in-pit ramp - 38 cross section showing drillhole traces, geological interpretation and ore blocks - Tabulated ore blocks with cryolite, fluorite and siderite grades and tonnages (back-calculated blanket SG of 3)
		GEUS Report File No. 21549 "Ivigtut Mineopmaaling, 1962" This report is a survey record of the open pit and includes 28 sections, each of which show the pit profile together with drillhole traces and, on some sections, underground workings.
		GEUS Report File No. 20241 Kryolitselskabet Oresund A/S, Lodighedsdistribution I, Ivigtut Kryolitbrud, 31.12.1985" (Danish) 108 pages of drillhole analytical data in %: hole ID, from to, cryolite, fluorspar, Fe, Cu, Zn, Pb, S
Geology	Deposit type, geological setting and style of mineralisation.	Granitic Layered Intrusive Deposits
Drill hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. If the exclusion of this information is justified on the basis that the information is 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.	The drill hole information has been inserted and tubulated within the document for the drill holes reported. Further desktop study work is in progress for the quartz and zinc mineralisation and will be released as soon as the data has been captured and interpretation completed

Criteria	JORC Code explanation	Commentary
Data aggregation methods	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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	Modelling cut off grades: Cryolite 2% Fe 0.5% There are two main flat to shallow dipping, mineralised domains beneath and surrounding the lower portions of the pit. Domain D1: Cy-Fl Cryolite and Fluorite co-exist Domain D2: Fe-Zn; iron (siderite) and zinc co-exist Cy and Fl grades to be estimated within Domain 1 Fe-Zn grades to be estimated within Domain 2 D2 is clipped against D1 No metal equivalent grades have been sourced from historic reports
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	All drill holes intersect the mineralisation at an angle of approx. 90 degrees. Thus, the intersections are close to true width if not 100% of true width. For example, in places where the mineralisation is horizontal the drillholes are vertical. Interval widths have been reported in Appendix B and summary table has been documented in Table 1 of the ASX release
Diagrams	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	All grades have been included including the lower grades and significant intersections been reported within the release document. Drill cross sections and 3D models have been included within the document.
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	sectional views.	
Balanced reporting	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.	The assay results have been sourced from the historical reports and have been substantially documented
Other substantive exploration data	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.	The assay results have been sourced from the historical reports and have been substantially documented
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work is currently underway for the incorporation of all base metal and quartz zones within the pit area. Work will include data capture, interpretation of cross section and volume calculations.
$(\overline{\Omega}\overline{D})$		
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