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AUTHOR(S): REPORT YEAR:	Rotzien, J. 1991, 61 Pages			
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Gold Commissioner's Office VANCOUVER, B.C.

### DRILLING REPORT

on the

### 1991 EXPLORATION OF THE MV GROUP

### OMINECA MINING DIVISION

### BRITISH COLUMBIA

LATITUDE 55° 34' LONGITUDE 125° 25'

### NTS 93N/11W

CLAIM GROUP MV

Owner and Operator

ALPHA GOLD CORP.

6018 Marguerite St. Vancouver, B.C. V6M 3L1

Consultant

DOLMAGE CAMPBELL LTD. 1970-1055 West Hastings St. Vancouver, B.C. V6E 2E9

December 13, 1991 Vancouver, B.C.

# GEOLOGICAL BRANCH ASSESSMENT REPORT

NUMBER OF CLAIMS



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# 1 1. EXECUTIVE SUMMARY

Exploration on the MV claim group up to September 18, 1991 consisted of site preparation, road improvements, minor cleaning of old trenches and the drilling of five diamond drill holes totalling 328.7 metres of drilling.

This work has confirmed the existence of an oxidized mineralized zone (Zone 3) on the MV 1 claim which contains significant values in gold, silver and zinc. Surface traces of this zone, which extend to the south for over 1,000 feet, indicate a possible resource in the order of one-million tonnes at a tenor of 3 to 5 grams per tonne gold equivalent.

It is recommended that the extension of the zone, down dip and along strike, be further investigated by diamond drilling and trenching. Subsequent reports on the remainder of the 1991 drilling program will give more detailed recommendations.

Total costs of the project up to September 18, 1991 are \$49,908.88.

### 2. INTRODUCTION

During the months of August, September and October 1991 alpha Gold Corp. completed a diamond drilling program which consisted of eleven drill holes totalling 906.6 metres of drilling on the Lustdust property (MV Group) of Alpha Gold Corp. Dolmage Campbell Ltd. provided a geological engineer who supervised the diamond drilling and completed all related technical work at the site. This report presents the results of the program up to September 18, 1991, 5 holes totalling 328.7 metres of drilling, and provides a detailed cost statement for this work.

### 2.1 PROPERTY STATUS

The Lustdust property of Alpha Gold consists of three two-post claims:

Name Record No.	Units	Registered Owner	Recording Date	Expiry Date
MV-1 132409	1	Alpha Gold Corp.	20/09/74	20/09/91
MV-2 132410	1	Alpha Gold Corp.	20/09/74	20/09/91
WOW # 1 1514	1	Alpha Gold Corp.	20/10/78	20/10/91

Alpha Gold Corp. also owns the Hogan claim, consisting of 20 units, located approximately 1500 feet north of the MV claims.

### 2.2 LOCATION AND ACCESS

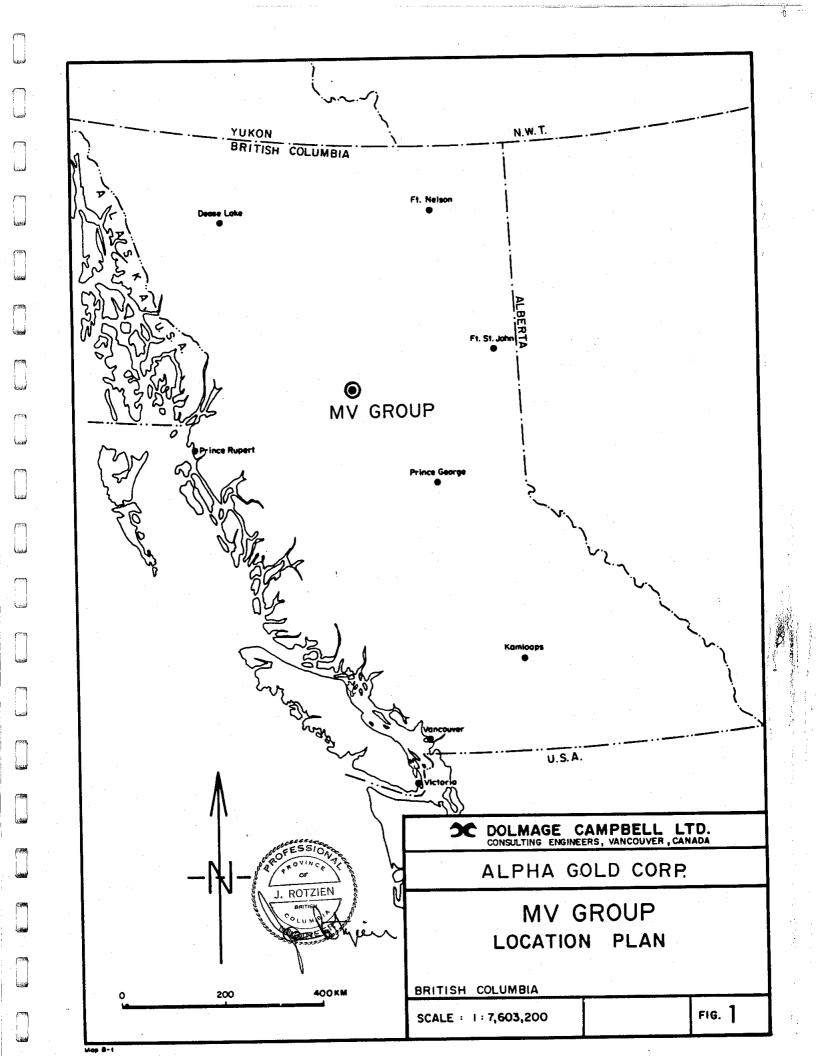
The MV Group property is located in the Omineca Mining Division of north-central British Columbia, NTS 93N/11, at Latitude 55° 34 North and Longitude 125° 25' West, approximately 210 km northwest of Prince George, B.C. and 36 km east northeast of Takla Landing, immediately west of the old Takla Mercury Mine.

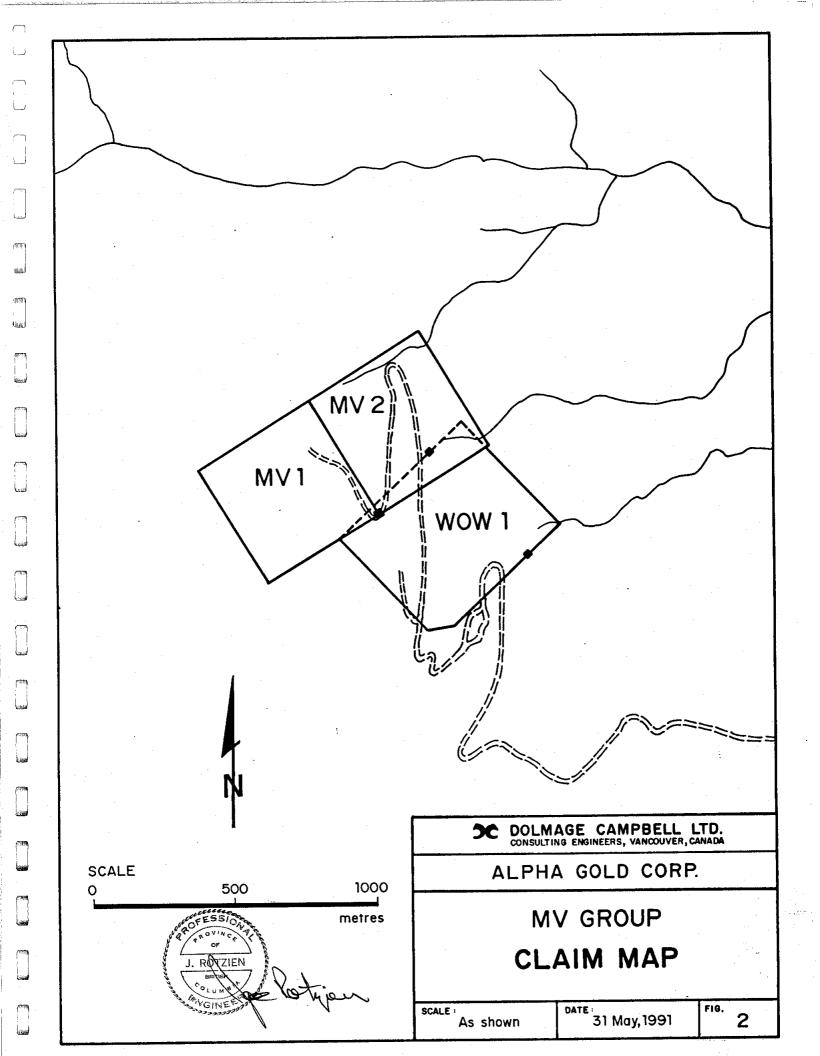
Access to the property is gained by travelling approximately 25 kilometres of paved road from Fort St. James towards Tachie Lake and thence 88 kilometres along the Leo Creek, 56 kilometres along the Driftwood, approximately 20 km along Fall-Tsayta and 3 kilometres along the Silver Creek forest service roads for a total of 191 kms.

Alternative access can be gained by float plane or train to Takla landing and 49 kilometres along the Fall-Tsayta and Silver Creek roads or by float plane to Tsayta Lake and 30 kilometres along the Fall-Tsayta and Silver Creek roads.

### 2.2 TOPOGRAPHY PHYSIOGRAPHY AND CLIMATE

Slopes on the property are gentle to moderately steep ranging from an elevation of 1000 m to 1600 m with vegetation ranging from mature spruce through thick cedar brush to alpine vegetation. The summers are normally hot and dry while the winters are long and cold. the property is normally snow free from mid-May to mid-October and the annual precipitation ranges from 500 mm to 1000 mm.





### 2.4 PREVIOUS WORK

The Lustdust area was first staked in 1944 when the No. 1 Zone was discovered. Since that time numerous operators have investigated the property and immediately surrounding area at different times for different metals. As a result of these investigations four mineralized zones have been identified in the area. However, the bulk of the work has been completed on Zones 1 and 4b (see footnote) due to the depth of the oxidized zone of Zone 3 and the limited extent of Zone 2.

A list of the work performed by the various authors is given below.

	A list of the work per	Current	various autitors	is given below.
		Claim		
Date	Operator	Name	Zone	Work Performed
Date	Operator	INALLE	Zone	WORK I CHOIMEd
1944	<u></u>	WOW #1	Zone 1	No. 1 Zone discovered -
				staked.
1945	McKee Group,	WOW #1	Zone 1	Trenching - 350 ' drifting.
	Leta Explorations Lto	1.		
1952-	Bralorne Mines	WOW #1,	Zone 1	17410 ' of trenching and 4688 '
1954	Ltd.	MV1, MV2,	2, 3, 4b	drilling.
		Μ		
1960	Bralorne Mines Ltd.	**	Zone 1,	7 rock cuts, 34 test pits,
	Noranda, Canex J.V.		2, 3, 4b	4950' of cat trenching,
				650 ' of hand trenching.
1963	<b>Bralorne Mines</b>	WOW #1	Zone 1	Sampling.
	Ltd.			
1964	Takla Silver	11	Zone 1	750 ' drifting.
	Mines Ltd.			
1966	Takla Silver	a.	Zone 1	750 ' underground drilling.
	Mines Ltd.	WOW #1,	Zone 1,	2500 ' surface drilling
	•	MV1, M	3, 4b	
1968	Takla Silver	WOW #1	Zone 1	4387 ' surface drilling.
	Mines Ltd.			
	Anchor Mines Ltd.	WOW #1	Zone 1	1881 ' underground drilling.
			Zone 1	300 lb bulk sample metallurgical
				testing.
1978	Granby Mining	MV1, MV2,	Zone 3,	Line cutting, soil geochemical
1770	Corp.	K, L, M	20110 5,	survey, geological mapping, geophysics
	corp.	11, 11, 111		(Shootback E.M., Magnetometer).
				(),
1979	Granby Mining	K, L, M	Zone 1,	Geophysics (Pulse EM).
÷	Corp.		2, 3, 4b	
			Zone 4b	Diamond drilling (see footnote).

Footnote: Zone 4b is not located on the WOW #1 or MV1 or 2 claims.

1980 ]	Exploration L,M		one 1, 3, 4b		ng, airborne g meter, VLF).	geophysics	
			one 3	· · ·	d geop	hysics	(VLF,
		41	. c	magneton CEM,		Soil geo	chemistry,
				geologica holes).		drilling (2	
1981	Noranda Exploratio	n L,MZ	one 4b	One diam	ond drill hole	•	
	Company, Limited	!			frill holes dril	lled elsewhe	re
	,			on the pro	operty.		
1986	Welcome North	WOW #	1, Zone	e 1, Sa	mpling.		:
	Mines Ltd.	MV1, M	3, 4b	)			
1986	Pioneer Metals	Ħ	Zone 2, 3,	-	eological surv	ey.	

Footnote: Zone 4b is not located on the WOW #1 or MV1 or 2 claims.

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### 3. <u>GEOLOGY</u>

#### 3.1 <u>REGIONAL GEOLOGY</u>

The Lustdust property is situated in the Omineca Tectonic Belt of the Canadian Cordillera approximately 1.5 kilometres west of the Pinchi Fault, a major regional structure that trends northwesterly through the Omineca District. To the east of the Pinchi Fault bedrock consists primarily of intrusive granitic rocks of the Hogem Batholith of Jurassic age.

On the west side of the fault is a fault block of Permian rocks of the Cache Creek group consisting of chert, phyllite, argillite, greywacke, carbonate rocks and metavolcanics (chloritic schist). Structurally, this group has undergone two periods of penetrative deformation followed by kinking and faulting adjacent to the Pinchi Fault. As such these formations are tightly drag folded, sheared and cross-faulted, strike to the north-northwest, subparallel to the Pinchi Fault, and dip steeply to the west.

#### 3.2 <u>SITE GEOLOGY</u>

On the Lustdust property outcrop is sparse. Bedrock is covered by glacial outwash and oxidized soil and rock detritus up to 5 metres in depth. The presence of considerable depths (up to 50 metres) of gossan on the surface of the ore zones indicates that denudation by glaciation has not been severe.

The bedrock geology consists primarily of a conformable sequence of interbedded limestone, chloritic schist and phyllite, chert and argillite and volcanic tuff. These units are tightly folded and intraformationally sheared, dipping steeply to the west and overturned to the east.

No major intrusive bodies crop out on the property; however dikes and irregular plugs consisting of aphanitic quartz feldspar porphyry and medium crystalline granitic intrusives of monzonitic to dioritic composition are common. The porphyry dikes occur in irregular branching swarms commonly occupying north-northwest trending faults and shear zones. In such cases the dikes are extensively and intensively sheared, fractured hydrothermally altered and locally mineralized.

### 3.3 <u>LITHOLOGY</u>

Of the three most common lithologies at the site, limestone, chert-argillite and chloritic schist, the limestone and chert-argillite predominate.

The limestone is typical of the Cache Creek Group. It is mottled dark grey to black, soft, fine grained to finely crystalline marble that is generally massive within beds ranging from 25 metres to hundreds of metres thick. The chert is hard; grey, ribbon banded and intercalated with more massive, locally fissile to schistose quartzite and black argillite. The schistose zones are finely foliated, soft, dark green and locally pyritic to phyllitic.

The chlorite schist occurs in discontinuous belts and locally disconformable lenses, suggesting that it consists of metamorphosed lensey volcanic tuffs and/or flows.

An abbreviated stratigraphic column is given in Table 1.

### 3.4 MINERALIZATION

The mineralization at the Lustdust property occurs as replacement and fracture-filling in and along a series of steeply-dipping north-trending fracture zones which strike parallel to, or at a very low angle to, the formational trends. Within this environment there are two types of mineralization on the property; lead-zinc-antimony replacement veins with relatively high values in silver, and ironzinc massive elongate replacement bodies with low but consistent values in silver. The high grade silver mineralization occurs in Zones 1 and 2 (Figure 3) and the replacement zinc-iron mineralization occurs in Zones 3 and 4 (see footnote).

Essentially all of the exposures of the mineralized structures are in trenches, some of which are widely spaced and most of which are not well or deeply cleaned out, therefore there is necessarily considerable extrapolation involved in projecting the ore structures for appreciable distances. From the exposures that are available both on surface and underground, the writer has the impression that the fracture zones which are the hosts to the mineralization are persistent for at least one thousand of feet on strike.

From the existing drawings, it appears that <u>Zone 1</u> mineralization crops out at surface almost entirely within the boundaries of the WOW #1 claim. This zone, investigated by surface trenching, an underground adit and surface and underground diamond drilling, is a lead-zinc-antimony replacement vein with high values in silver. The vein is irregular in width and grade containing pyrite, sphalerite, galena, jamesonite, stibnite; arsenopyrite and freibergite. Previous surface sampling of this zone revealed a wide range of values across the zone, from 10 oz Ag/ton to 130 oz Ag/ton with a general average of about 30 oz Ag/ton. However this material is locally severely leached and oxidized. The only sample available from the underground workings contained 425 oz Ag/ton across a width of two feet. In addition to the high silver values the mineralized zone also contains up to 0.40 oz Au/ton as well as 1% to 7% Zn, 1% to 5% Pb and 2% to 10% Sb.

Footnote: Zone 4b is not located on the WOW #1 or MV1 or 2 claims.

	Period or Epoch	Group	Lithology
Cenzoic	Tertiary		Syenite, granite,
	(Associated with Lustdust mineralization?)		biotite-hornblende feldspar porphyry, felsite.
	INTRUSIVE	CONTACT	
	Upper Cretaceous	Sustut Group	Conglomerate, shale greywacke
	INTRUSIVE	CONTACT	
Mesozoic	Lower Jurassic (Outcrops on Lustdust Property)	Hazelton Group	Tuff, volcanic breccia granodiorite (Hogem Batholith)
	INTRUSIVE	E CONTACT	
	Upper Triassic and Jurassic	Takla Group	Chert, pebble conglomerate greywacke, argillite
•	Upper Triassic and Jurassic	Sitlika Assemblage	Tuff, volcanic breccia, rhyolite, feldspar, porphyry, siltstone, black phyllite
	Permo-Triassic		Serpentinite, harzburgite
	INTRUSIVI	E CONTACT	
Paleozoic	Upper Paleozoic (Host to Lustdust showings)	Cache Creek Group	Limestone, chert, phyllite, metavolcanic chlorite schist, greywacke, laminated siltstones.

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### 4. <u>1991 EXPLORATION PROGRAM</u>

The exploration work completed in 1991 was focused on the oxidized zone of mineralization known as Zone 3. The work consisted of diamond drilling and related activities such as access road improvements, site preparation and the cleaning out of the main trench of Zone 3. This report presents the data obtained from the initial five drill holes completed. The remainder of the work will be reported on at a later date. All diamond drill core from this program has been stored in a log cabin on a neighbouring claim.

### 4.1 DIAMOND DRILLING

Between August 23 1991 and September 18 1991 five diamond drill holes were completed in and around Zone 3 in the MV1 claim. Of the five holes completed four were drilled across the structure, at -45° to -65° to the east-northeast and one was drilled downdip along the footwall of the mineralized zone. The location, orientation and depths of each of these holes is given in Table 2 and the holes are plotted in plan on Figure 3 and on sections in Figures 4 and 5. The locations of the drill holes relative to the trenches and property boundaries were determined by topofil and compass surveys

### 4.2 CORE LOGGING AND SAMPLING

. All of the core obtained from the diamond drilling program was logged and sampled by the writer at the site. All core is stored in a log cabin at the intersection of the property access road and the Silver Creek forest service road.

The samples were shipped by truck to the North Vancouver laboratory of Bondar- Clegg and Company Ltd.

### 4.3 ANALYTICAL PROCEDURES

All of the core samples were prepared for analysis by crushing, grinding and drying, when necessary, using standard laboratory techniques. The rejects and pulps from the splits are stored at the laboratory.

Analytical procedures used by Bondar-Clegg are given in Appendix I.

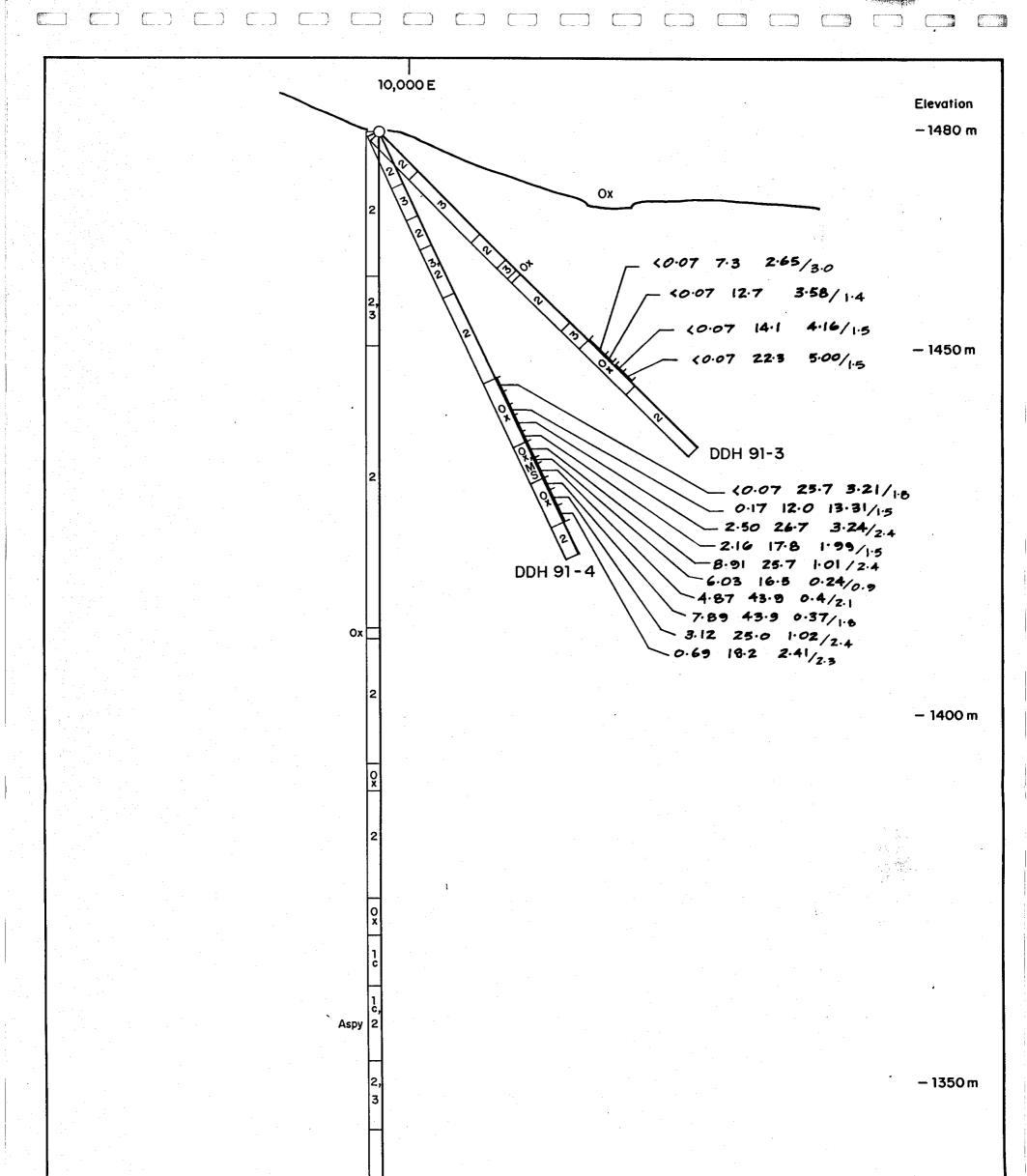
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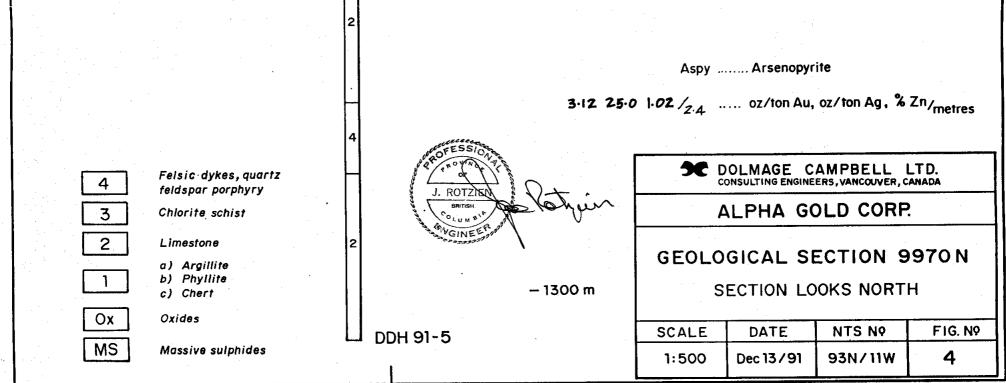
### 9

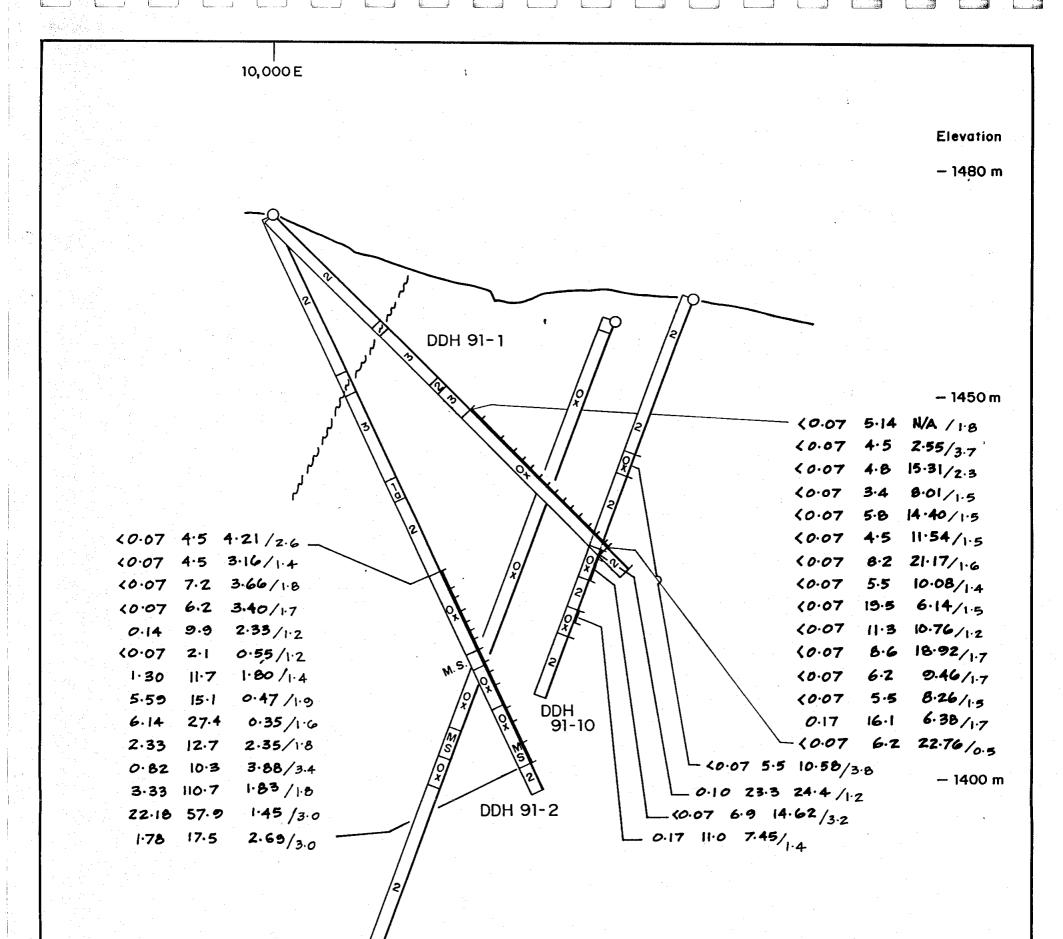
### TABLE 2

### LUSTDUST PROPERTY RECORD OF COMPLETED DRILL HOLES

	Data at Hole	Collar			<b>Dates</b>		<u>Drillir</u>	ng Lengt	: <u>hs</u>			<u>Remarks</u>
Hole No.	Coord	Dip (deg.)	Az (deg.)	Elev. Refer.	Start	End	Туре	From	То	O.B.	B.R.	
DDH 91-1	1,000N 10,000E	-45°	064	1474	30/08/91	03/09/91	OB BR	0.9 7.6	7.6 65.5	6.7	57.9	Ream casing to to 65.5 m
DDH 91-2	10,000N 10,000E	-65°	064	1474	03/09/91	08/09/91	OB BR	0.7 6.1	6.1 83.2	5.4	77.1	Ream casing to 79.2 m
DDH 91-3	9,970N 9,996N	-45°	060	1480	08/08/91	10/09/91	OB BR	0.9	- 61.0	-	- 59.9	Ream ccasing to 33.5 m
DDH 91-4	9,970N 9,996E	-65°	060	1480	11/09/91	14/09/91	OB BR	0.7	- 63.1 m	- -	- 62.4 m	Ream casing to 34.4 m
DDH 91-10	9,998N 10,055E	-70°	244	1463	04/10/91	07/10/91	OB BR	0.6	- 55.9	-	- 55.3	Ream casing to 33.5 m







DDH 91-6 3.12 25.0 1.02/2.4 oz/ton Au, oz/ton Ag, % Zn/metres DOLMAGE CAMPBELL LTD. CONSULTING ENGINEERS, VANCOUVER, CANADA 4 Felsic dykes, quartz feldspar porphyry AOFESS ALPHA GOLD CORP. 3 Chlorite schist Limestone 2 GEOLOGICAL SECTION 10,000N a) Argillite b) Phyllite 1 SECTION LOOKS NORTH c) Chert Ох Oxides F1G. Nº SCALE DATE NTS N9 -1300 m MS Massive sulphides 5 1:500 Dec.13/91 93N/11W

### 5. <u>RESULTS</u>

The results of the diamond drilling are presented in the form of diamond drill logs in Appendix II. Pertinent analytical results are summarized in Appendix III and the laboratory assay sheets are presented in Appendix IV.

The locations of the samples are given in Figures 4 and 5. A brief summary of each hole is given below.

Diamond drill hole 91-1 was drilled from approximately 24 metres from the main trench exposure of the gossan in Zone 3 at an azimuth of  $064^{\circ}$  and a dip of  $-45^{\circ}$ . The hole, drilled to test the downdip continuity of the oxidized zone, intersected approximately 20 m of limestone, a 1.5 m shear zone and 15 m of interlayered chlorite schist and limestone before encountering the oxide zone. The oxide zone, which extended from 36.4 m to 61.6 m, averaged <0.07 gm of gold per tonne. and 7.3 gm of silver per tonne and 9.86% zinc over 25.2 m. The hole was continued only to 65.5 m in limestone before severe rod vibration forced the stoppage of drilling.

Diamond drill hole 91-2, drilled from the same location as DDH 91-1 was drilled at an azimuth of 064° and a dip of -65° to further test the downdip continuity of the oxidized mineralized zone and to test the geometry of the zone.

This hole intersected a sequence of limestone shear zone and chlorite schist similar to DDH 91-1 before intersecting the oxide zone at 51.7 m. In this hole the oxide zone, which contained small intervals of massive sulphides, extended to 79.6 m for a total length of 27.9 m which averaged < 0.07 gm of gold per tonne, 5.6 gm of silver per tonne and 3.15% zinc over the first 19.9 m and 5.95 gm of gold per tonne, 31.8 gm of silver per tonne and 2.06% zinc over the last 18.0 metres. This hole was also stopped at 83.2 m because of severe rod vibration.

Diamond drill hole 91-3, approximately 30 metres (100 feet) along strike to the south, was drilled at an azimuth of 060° and a dip of -45° to test the extension of the oxide zone along strike. At this location the surface exposure of the oxide zone is only 5 metres wide and records of previous drilling and trenching were not available.

Hole 91-3 intersected a sequence of interlayered limestone and chlorite schist with a small interval of clayey oxides from 26.5 m to 27.0 m before intersecting the oxide zone at 39.9 m. The hole then intersected 8.9 metres of oxidized material, to 48.8 m, of which 8.0 metres averaged <0.07 gms gold per tonne, 11.7 gm silver per tonne and 3.34% zinc. The hole continued to 61.0 m in limestone prior to being stopped due to severe rod vibration.

DDH 91-4 was drilled from the same site and in the same direction as DDH 91-3 at a dip of -65°. This hole continued 37.2 metres, predominantly through limestone before intersecting the oxide zone. In this hole the zone extended 21.5 m and averaged 3.25 gm of gold per tonne, 23.5 gms of silver per tonne and 2.26% zinc. The hole continued only another 4.4 metres to a depth of 63.1 m.

DDH 91-10 was drilled just south of the main trench to test the location and orientation of the footwall and the downdip continuity of grade. An unexpected pinch in the oxide zone resulted in the upper portion of the hole being drilled in limestone. However from 22.2 metres to 55.9 metres this hole was drilled virtually along the footwall of the ore zone, intersecting oxides in the intervals

I	nterval	Grade					
From	То	Gold	Silver	Zinc			
(m)	(m)	(g/t)	(g/t)	(g/t)			
22.2	26.1	<0.07	5.5	10.58			
34.4	35.1	Not assaye	d. High core lo	oss			
35.1	39.5	<0.07	11.3	17.28			
43.7	45.1	0.17	11.0	7.45			
45.1	47.2	Not assaye	d. High core lo	DSS			

From 47.2 m to the end of the hole at 55.9 m, very low core recovery was obtained and drilling conditions were extremely difficult in highly broken limestone.

It should be noted that core loss was very high in all holes, especially in the dark brown sandy oxides, which may have resulted in the loss of gold values.

### 6. DISCUSSION

From the results given above it is apparent that significant gold, silver and zinc mineralization exists within an oxide zone that averages approximately 15 metres in true thickness to a tested depth of 60 metres. The drilling reported herein has extended only 30 metres on strike but evidence from surface mapping indicates that the zone may extend to the south for a distance in the order of 500 metres. Surface exposures to the south are relatively thin, 3 m to 5 m, compared to the main trench on Section 10,000 mN but compare favourably with the exposure in Section 9,970 mN where the trench is only 5 m wide.

In addition, evidence exists from surface mapping that this zone may also extend to the north of the Gulley Shear. Ongoing drilling is testing this extension to the north and will be reported separately.

### 7. CONCLUSIONS AND RECOMMENDATIONS

Given the possible extension of Zone 3 to the south along the trace of surface exposures and the dimensions investigated in Sections 9,970 mN and 10,000 mN, an open-pittable, oxide, mineral resource in the order of one million tonnes at a tenor of 3 to 5 grams per tonne gold equivalent could be available on the MV group.

As such, it is recommended that the extensions of the zone downdip and along strike be further investigated by diamond drilling and trenching.

More detailed recommendations will be given in subsequent reports currently being assembled by the writer.

### 8. STATEMENT OF COSTS

The costs associated with the diamond drilling reported herein are detailed in Appendix V and summarized below:

Diamond drilling and casing	\$ 30,900.85
Analytical costs	1,743.71
Site supervision	9,469.50
Staff quarters	1,862.83
Board	1,750.00
Truck rental	1,613.99
Travel	2,568.00

Total

\$ 49,908.88

Of these costs \$33,064.00 were claimed in a Statement of Work dated September 18, 1991, Document No. 3006206. An application to credit the excess, \$16,844.80 to the owners PAC account will be submitted at the time of submission of this report.

Respectfully submitted, Dolmage Campbell Ltd. ROTA man YGINE J. Rotzien, P.Eng.

### 9. <u>REFERENCES</u>

15

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### 10. STATEMENT OF QUALIFICATIONS

I, J.L. Rotzien do hereby certify that:

- 1. I reside at 634 Berry St., Coquitlam, British Columbia.
- 2. I am a registered Professional Engineer with the Association of Professional Engineers of British Columbia.
- 3. I obtained a B.A. Sc. in Geological Engineering in 1972 and a M.A. Sc. in Mining Engineering in 1989 from the University of British Columbia.
- 4. I have been practising my profession on a full time basis as a geological engineer since 1972, except from 1983 to 1986 when I was enrolled in the M.A.Sc. program at the University of B.C.
- 5. I supervised the diamond drilling reported herein and completed all logging and sampling of the core.
- 6. I have no direct or indirect interest in the property discussed in this report or in Alpha Gold Corp. nor do I expect to receive any in consideration of this report.

ROTZIE GINE

J. Rotzien, P.Eng.

Appendix I

# ANALYTICAL PROCEDURES

1

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) kasa October 11, 1991

#### GOLD AND SILVER BY FIRE ASSAY WITH COLLECTOR

This procedure takes advantage of the ability of a collector for Au and Ag and the collector retards the loss of Ag during the cupellation stage of fire assay.

There are advantages to using this method to do Au/Ag assays:

- 1. Both the Au and Ag can be run by A.A. off the same solution at very low levels. (i.e. we can read very accurately the Au to 0.001 OPT and the Ag to 0.01 OPT).
- 2. The fire assay Gravimetric method is at best give or take 0.02 OPT and down in the low levels it is easy to have high losses of Ag during cupellation. this does not happen with the Collector in the bead!
- 3. The method is good for levels up to 1.00 OPT Ag and 0.300 OPT Au (over 1 OPT the Ag has a tendency to precipitate out of the solution).
- 4. The au result by this method is every bit as good as the fire assay A.A. finish currently used by most labs.
- 5. The limiting factor is that you can't go as high as you want to for Ag. We have to reassay by Gravimetric finshi any Ag's over 1.00 OPT>

### ZINC BY ATOMIC ABSORPTION

#### REAGENTS

Hydrochloric Acid (HCl) - conc. Nitric Acid (HNO3) - conc.

APPARATUS

Hot plate 300 ml beakers (tall form) Cover glasses Funnels 200 ml Volumetric flasks Wash bottle Atomic absorption unit

### PROCEDURE

1. Weigh 0.5 gm sample into 300 ml (tall form) glass beaker.

2. Add 10 mls each of HNO3 and HCl.

- 3. Digest on hot plate: take to dryness.
- 4. Remove from hot plate and allow to cool.
- 5. Add 50 mls of D.I. water and 25 mls HCl.
- 6. Cover and boil 5-10 mins.
- 7. Cool and transfer into 200 ml volumetric flasks.
- 8. Bulk to volume and mix thoroughly.
- 9. Finish by AA.

If dilutions are needed, take 10 mls and dilute to 100 mls with 10% acid except in the case of Sb, Pb, and Ag which take 25% HCl final volume.

If they are over 10% and drill samples, all elements must be rerun wet or at least by A.A. again in duplicate at 0.25 grams. Zn assays must be run again by titration. Only if they are rock samples and not drill samples can just A.A. results reported.

AA INSTRUMENT PARAMETERS Wavelength = 213.9 nm Slitwidth = 100 Lamp Current = 5 mA Fuel Flow = Air/Acetylene Flame Conditions = Lean

### LEAD BY ATOMIC ABSORPTION

#### <u>R</u>EAGENTS

Hydrochloric Acid (HCl) - conc. Nitric Acid (HNO3) - conc. Potassium Chlorate (KClO3)

#### APPARATUS

Hot plate 300 ml beakers (tall form) Cover glasses Funnels 200 ml Volumetric flasks Wash bottle Atomic Absorption Unit

### PROCEDURE

- 1. Weigh 0.5 gm sample into 300 ml (tall form) beaker.
- 2. Add 10 mls each HNO3, and HCl.
- 3. Digest on hot plate; take to dryness.
- 4. Remove from heat and allow to cool.
- 5. Add 50 mls of D.I. water, 25 mls HCl and approximately 0.1 gm KCl03. (pinch).
- 6. Cover and boil for 30 mins.
- 7. Cool and transfer into 200 ml volumetric flask.
- 8. Bulk to volume and mix thoroughly.
- 9. Finish by AA.

If dilutions are needed, take 10 mls and dilute to 100 mls with 10% acid except in the case of Sb, Pb, and Ag which take 25% HCl final volume.

Ag, Pb, and Sb must be run on the A.A. on the same day they are bulked up to avoid the elements precipitating out in their chloride form.

If they are over 10% and drill samples, all elements must be rerun wet or at least by A.A. again in duplicate at 0.25 grams. Only if they are rock samples and not drill samples can just A.A. results reported.

### AA INSTRUMENT PARAMETERS

Wavelength = 283.3 nm Slitwidth = 50 Lamp Current = 5 mA Fuel Flow = Air/Acetylene Flame Condition = rich

### ANTIMONY BY ATOMIC ABSORPTION

### REAGENTS

Hydrochloric Acid (HCl) - conc. Nitric Acid (HN03) - conc. Perchloric Acid (HCl04) - conc. Hydrofluoric Acid (HF) Potassium Chlorate (KCl03)

### APPARATUS

Hot plate Teflon beakers Cover glasses Funnels 200 ml volumetric flasks Wash bottle Atomic Absorption Unit

#### PROCEDURE

- 1. Weigh 0.5 gm sample into teflon beaker.
- 2. Add 10 mls each HN03, HCl then HCl04.
- 3. Add 3-5 mls HF.
- 4. Digest on hot plate, take to heavy perchloric fumes.
- 5. Remove form heat and allow to cool.
- 6. Add 50 mls of D.I. water, 25 mls HCl and approximately 0.1 gm KCl03.
- 7. Cover and boil for 30 mins.
- 8. Cool and transfer into 200 ml volumetric flask.
- 9. Bulk to volume and mix thoroughly.
- 10. Finish by AA.

Sb, Pb, and Ag must always be run the same day they are bulked up to volume to avoid the elements precipitating out of solution.

### AA INSTRUMENT PARAMETERS

Wavelength = 217.5 nm Slitwidth = 100 Lamp Current = 10 mA Fuel Flow = Air/Acetylene Flame Condition = rich

# Appendix II

# DIAMOND DRILL CORE LOGS

1

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# ALPHA GOLD CORP

# DRILL RECORD - DOLMAGE CAMPBELL LTD.

Coord Elev.	d. 10000 10000 1474 1	E Lengt	h 65.5 m uth 064°	Project Lustdust Property Location: 24 metres northwest Trench	· · · · · · · · · · · · · · · · · · ·		ole No. DDH91-1 Date Sept. 4/91 ogged by: J. Rotzien
Core	size NQ	Dip	45°	Purpose: Test downdip continuity and geometry of c	xidized zone.		
Dep	oth	Rock Type		Description		Core	Loss
From (m)	То		· ·		From (m)	To (m)	Lost (m)
0	0.9		Datum to g	round			
0.9	7.6	Fill and Overburden	Casing				
7.6	19.8	Limestone	Mottled gre	ey, moderately hard, massive to faintly bedded,	7.6	10.7	1.4
			rubbly, rehe	ealed limestone breccia with fresh to highly	10.7	13.7	0.2
			oxidized joi	nt surfaces ranging through rusty brown,	13.7	16.8	1.0
				ly and dark brown. Buff to brown blebs	16.8	19.8	1.5
				sphaleritic limestone constitute $\pm 3\%$ of core.	19.8	22.9	0.3
			Jointing is	predominantly oriented at 0°-10°, 45° and 30°.	22.9	25.9	1.0
					25.9	32.0	1.1
					32.0	35.0	1.5
			7.6 m-12.4	m Faintly bedded limestone rubbly to blocky core	35.0	38.1	2.7
				staining on joint surfaces. Bedding at 45°.	38.1	41.1	1.1
			une spuise		41.1	44.2	2.6
					44.2	47.2	2.0
			12.4 - 19.8	Limestone is massive but vuggy and rubbly with	47.2	50.3	0
				se staining and mineralization.	50.3	53.3	0
				ase in frequency and size with depth.	53.3	56.4	0

# Hole No. DDH91-1

Depth	Rock Type	Description		Core	Loss
From To (m) (m)			From (m)	To (m)	Lost (m)
		Fracturing is more intense and joints are all stained and commonly vuggy. Calcite veinlets are common throughout increasing from	56.4 59.4	59.4 62.5	1.9 0
		2mm to 6 mm with depth.	62.5	65.5	0.2
19.8 21.3	Shear Zone	Olive grey, very soft, sticky clay gouge with fragments of chlorite schist and limestone.			
		19.9 - 20.0 Light rusty brown clay. 20.7 - Foliation at 75° to 90°.			
		21.0 - 21.3 Increasingly solid chlorite schist with limey bands.			
21.3 30.5	Chlorite Schist	Grey green, soft to moderately hard, intensely foliated, vuggy, rubbly to blocky, fine-grained chlorite schist with bands and blebs			
		of limestone decreasing with depth. Oxidized mineralization common throughout but decreasing with depth. Rust staining is common in disseminations and along joints. Oxidized pyrite crystals up to			
		3 mm are sparse. Oxidation products range from dark rusty brown to light yellow brown. Foliation is drag folded in places but commonly			
		consistent at: 21.3 - 75° 26.8 - 75° 29.9 - 80°			. ·
		22.99 cm Rusty clay with fragments of chlorite schist.			
		<ul><li>23.3 - 6 cm Graphitic shear.</li><li>24.4 Distinctly crinkled drag folded chlorite schist.</li></ul>			

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# Hole No.: DDH91-1

Depth		Rock Type	Description		Core Loss		
	To	Iteen Type		From	То	Lost	
<u>m)</u>	<u>(m)</u>			(m)	<u>(m)</u>	<u>(m)</u>	
0.5	32.0	Limestone	Grey, moderately hard, massive, blocky limestone with dull greyish				
	52.0	Linestone	brown vuggy joints.				
.0	35.2	Chlorite	Grey to grey green, moderately hard, foliated, highly broken, chlorite schi	st			
		schist	with oxides on foliation and joint surfaces and weakly disseminated through	ghout.			
			Foliation at 75°.				
.2	36.4	Limestone	Grey moderately hard, massive, blocky to rubbly, vuggy limestone with joi	nts			
	2011		commonly at 10° and 65° with light orange to dark rusty brown staining				
			and solution features.				
			35.8 - 6 cm Brown moderately hard limestone with (sphalerite?)			· .	
.4	61.6	Oxidized	Light yellow to dark brown, very soft, clayey, oxidized zone with fragment	ts and			
		Zone	bands of limestone. Very poor core recovery from 36.4 to 41.1.				
			36.4 - 38.1 Dark brown to yellow clay with limestone fragments.				
			38.1 - 10 cm Limestone.				
			38.1 - 41.4 Yellowish brown clay.				
			41.4 - 41.9 Grey limestone.				
			41.9 - 44.2 Yellowish brown to rusty orange clay.				
			<ul><li>44.2 - 45.7 Rusty orange to orange brown clay.</li><li>45.7 - 50.4 Yellow brown clay with minor intervals of rusty orange clay and</li></ul>	h			
			fragments of dark brown oxidized material.				
			50.4 - 53.3 Rusty orange to dark brown, clayey to sandy oxides.				
			53.3 - 53.9 Yellow clay with black sandy material and rusty red to dark				
			brown clay.				
			53.9 - 54.6 Grey, faintly bedded limestone with bedding at 45° to 50°.	•			
			54.6 - 56.2 As in 53.3 to 53.9.				
			56.2 - 5 cm limestone.				

3

4

# Hole No.: DDH91-1

Depth Rock Typ	Description		Core Loss			
rom To m) (m)		From (m)	To (m)	Lost (m)		
		•				
	56.2 - 57.9 As in 53.3 to 53.9.					
	57.9 - 59.4 Yellowish to orange oxidized clay with gravelly limestone fragments.					
	59.4 - 61.0 Rusty orange to brown clay with dark brown sandy material. 61.0 - 61.1 Limestone.					
	61.1 - 61.6 As in 59.4 - 61.0.	•				
.6 65.5 Limestone	Grey, moderately hard, blocky, faintly bedded limestone with weak, rehealed brecciation. Slightly vuggy with rust stains on vugs and joints and blebs of brown, sphaleritic (?) limestone.					
.5	END OF HOLE. NOTE: Majority of core loss likely from oxidized sand and					
	clay being washed and pushed out of hole due to fragments of limestone wedged in core catcher.					
	2) All measurements in metres unless otherwise noted.					
	3) All angles measured with respect to core axis.					

# ALPHA GOLD CORP

1

# DRILL RECORD - DOLMAGE CAMPBELL LTD.

Coord Elev.	. 10000) 10000) 1474 r	E Lengt	a 83.2 mProject Lustdust Propertyth 964°Location: 24 metres northwest Trench			Date S	DDH91-2 Sept. 4/91 J. Rotzier
Core s	ize NQ	Dip -4	5° Purpose: Test downdip continuity and geometry of oxidized	zone.			
Dept From		Rock Type	Description	From	Core To	Loss Lost	
	<u>(m)</u>			(m)	(m)	<u>(m)</u>	
0 0.7	0.7 6.1	Fill and Overburden.	Datum to ground. Casing.				
6.1	23.0	Limestone	Grey, moderately hard, blocky to rubbly, medium to coarse-grained limestone with traces of oxidized sulphides predominantly on joint surfaces. Calcite healed joints up to 3 mm thick predominantly oriented at 40°. Rust stained joints commonly at 0°-15°.	6.1 7.6 10.7 13.7 16.8 19.8 22.9	7.6 10.7 13.7 16.8 19.8 22.9 25.9	0 0 0 0.2 0.7 2.9	
			<ul> <li>6.1 - 12.2 Massive, rubbly to blocky limestone.</li> <li>12.2 - 12.6 Thinly bedded, blocky limestone with bedding at 65°.</li> <li>12.6 - 17.4 Massive to weakly bedded, blocky limestone with bedding at 35° at 14.9 m.</li> <li>17.4 - 19.6 Light grey, massive, sound limestone with 1-2% buff to grey</li> </ul>	25.9 29.0 32.0 35.0 38.1 41.1	29.0 32.0 35.0 38.1 41.1 44.2	2.3 1.9 1.6 2.0 2.9 1.2	

### Hole No. DDH91-2

Depth		Rock Type	Description	Core Loss		
From		• •	•	From	То	Lost
<u>(m)</u>	(m)			<u>(m)</u>	(m)	<u>(m)</u>
	• •		brown blebs of sphaleritic limestone.	44.2	47.2	0.4
				47.2	50.3	0.9
			19.6 - 22.1 Massive, sound to blocky limestone.	50.3	51.5	0.3
			22.1 - 22.9 Light grey to brown, sound, faintly bedded limestone with a	51.5	52.1	0.1
			trace of sphalerite. Bedding @ 30° at 22.3 m.	52.1	52.7	0
				52.7	53.9	0
			22.9 - 23.0 Limestone with some greenish brown, soft chloritic material.	53.9	54.6	0
				54.6	55.8	0
				55.8	56.4	0
				56.4	57.0	0
				57.0	57.6	0
23.0	25.9	Shear Zone?	No Core Recovery	57.6	58.2	0
				58.2	58.8	0.3
25.9	38.1	Chlorite	Grey green to rusty grey, moderately soft to soft, rubbly to blocky,	58.8	59.4	0.3
		Schist	fine grained, foliated chlorite schist with abundant layers and blebs	59.4	60.0	0.6
			of limestone and drag folding at 31.4 m.	60.0	61.0	0.9
				61.0	61.3	0.2
				61.3	61.8	0
			25.9 - 29.9 Rust stained with 1-2% sphalerite.	61.8	62.5	0.3
			Foliation at 40°	62.5	63.1	0.3
			29.9 - 31.7 Dark grey, vuggy with foliation at 40°	63.1	63.7	0.2
			31.7 - 38.1 Grey green with rusty joints and foliation at 35°.	63.7	64.3	0.2
				64.3	64.9	0.1
				64.9	65.5	0.1
38.1	41.1	Argillite	Grey, moderately soft to soft, rubbly, very fine grained, foliated	65.5	66.1	0.4
		<b>U</b>	argillite with rusty foliation partings. Only 0.15 m of core recovered.	66.1	66.8	0.1
				66.8	67.4	0.1

2

#### Hole No. DDH91-2

Depth	Roc	k Type	Description		Core	Loss
From T (m) (n	0	VI		From (m)	To (m)	Lost (m)
				67.4	68.0	0.2
1.1 5	1.7 Lim	estone	Grey, moderately hard, massive to faintly bedded, sound to blocky,	68.0	68.6	0.5
			medium to coarse grained limestone with abundant rusty joints and	68.6	69.2	0
			from 44.3 m to 49.7 m increasingly abundant and thicker zones of	69.2	69.8	0.6
			oxidized sulphides. Jointing @ 30°, 60° and 10°, all rust stained.	69.8	70.4	0.6
				70.4	71.0	0
				71.0	71.6	0.6
			Rock has been brecciated and rehealed generally causing displacement	71.6	72.2	0
			of bedding features and some small scale drag folding.	72.2	72.8	0
••				72.8	73.8	0
				73.8	74.4	0.1
			43.3 Faint bedding at 25° - 30°	74.4	74.7	0
			44.5 - 6 cm Rusty clay recovered	74.7	75.9	0.5
			47.5 - 15 cm Buff clay recovered	75.9	76.5	0.2
			47.8 - 3 cm Rusty brown clay recovered	76.5	77.1	0.2
			48.1 - As above	77.1	77.7	0.6
			48.5 - 49.8 0.4 m rusty brown clay recovered	77.7	78.3	0.5
				78.3	78.9	0.2
1.7 63	3.0 Oxid	lized	Grey brown to rusty orange to dark reddish brown, clayey to sandy	78.9	79.6	0.4
	Zon	e	massive oxidized zone with occasional limestone fragments.	79.6	80.2	0.2
				80.2	80.8	0
				80.8	81.4	0
			51.7 - 52.1 Dark reddish brown oxides	81.4	83.2	0.1
			52.1 - 53.2 Light rusty brown clayey oxides with 8 cm limestone			
			at 52.9 m (not sampled).			
			53.2 - 53.6 Light rusty brown sandy oxides with sand-sized			
			limestone fragments.			

Depth Rock Ty		Description		Core	Core Loss		
from To (m) (m			From (m)	To (m)	Lost (m)		
		•	67.4	68.0	0.2		
		53.6 - 54.2 Light rusty brown clayey oxides.					
		54.2 - 54.7 Rusty brown clayey oxides.					
		54.7 - 55.6 Light rusty brown clayey oxides.					
		55.6 - 59.2 Orange, brown clayey oxides with blebs of bright orange					
		and dark brown oxides.					
		59.2 - 60.4 Dark reddish brown, moderately soft to loose sandy					
		oxidized materials.					
		60.4 - 61.6 Light rusty brown to orange brown, loose, sandy to clayey					
		oxides.					
		61.6 - 62.9 Dark reddish brown to reddish brown, moderately soft					
		to very soft clayey oxides.					
		62.9 - 63.0 Limestone.			• .		
		NOTE: from 52.7 to 58.2 core recovery >100% due to core swelling					
		40-50% in length after retrieving from inner barrel.					
• • • • •							
3.0 66.4		Dark brown to dark reddish brown, very soft to moderately soft,					
	Sulphides	fine to coarse grained, vuggy, massive sulphides with one interval					
		of 6-8 cm of galena? rich material and remnant lenses of extremely					
		vuggy, very fine grained, multicoloured chlorite schist.					
		63.0 - 63.7 Dark brown vuggy sulphides.					
		63.7 - 63.8 Fresh, weakly magnetic vuggy sulphides.					
		63.8 - 64.9 Dark brown vuggy sulphides with a bleb of fresh					
		sulphides at 64.4 m and a remnant of chlorite schist (1.5 cm)					
		at 64.7 m.					
			4 4 - 1 -				

Depth		Rock Type	Description		Core	Loss
From (m)	To (m)			From (m)	To (m)	Lost (m)
			64.9 - 65.2 Dark brown to black sulphides with blebs		•	· · · · · · · · · · · · · · · · · · ·
			of fresh sulphides and chlorite schist.			
			65.2 - 66.4 Dark brown to black sulphides.			
	<b>71</b> 0					in an
66.4	71.0	Oxidized	Light orange brown, very soft, rubbly to pulverized, clayey oxides			
		Zone	and dark reddish brown, loose, sandy oxides.		•	
			66.4 - 60.6 Light orange brown clayey oxides.			
			66.6 - 3 cm Limestone.			
			66.6 - 68.3 Dark reddish brown, loose, sandy oxides with a trace of			
			moderately magnetic particles and minor intervals of orange brown			
			clayey oxides.			
			68.3 - 69.2 Light to dark orange brown, soft, clayey oxides with			
			blebs of dark reddish brown, loose, sandy oxides.			
			69.2 - 70.4 No core recovery - likely loose sandy oxides.			
			70.4 - 71.0 Mixed oxides as in 68.3 to 69.2 with 50:50 clayey:sandy.			
71.0	79.6		Orange brown to dark brown and black, very soft to moderately hard,			
		and Sulphides	rubbly to blocky mixture of sulphides and oxides.			· .
			71.0 - 71.6 No core recovery.			
			71.6 - 71.8 Dark to light rusty brown, moderately hard sulphides.			
			71.8 - 72.3 Dark brown loose, sandy sulphides.			4
			72.3 - 72.8 Reddish brown partially oxidized sulphides.			
			72.8 - 73.4 Rusty brown, soft, sandy oxides.			
			73.4 - 79.6 Rusty brown to dark reddish brown, moderately hard			
			sulphides. Vuggy from 76.5 to 79.6 m.			
79.6	83.2	Limestone	Grey, moderately hard, blocky to sound, fine to medium grained			
• •			limestone with 1-2% light brown to buff sphaleritic blebs.			
			Joints are rusty and predominantly at 20° and 50°.			

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Depth From To (m) (m)	Rock Type	Description	 From (m)	Core To (m)	Loss Lost (m)	
83.2		79.8 Bedding at 30°. 79.8 - 80.2 Brownish grey sphaleritic limestone. END OF HOLE				
		NOTE: 1) All measurements in metres unless otherwise noted. 2) All angles measured with respect to core axis.				• <sup></sup>

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### ALPHA GOLD CORP

### DRILL RECORD - DOLMAGE CAMPBELL LTD.

Coord Elev.	d. 9,970 9,996 1480	mE Leng	th 60.1 m uth 06°	Project Lustdust Property Location: Approximately 50 m south of trench.			Date S	DDH91-3 Sept. 4/91 J.Rotzien
Core	size NC	) Dip -	45°	Purpose: Test downdip and on strike extension.				
Dep	oth	Rock Type		Description		Core	Loss	_
From (m)	То				From (m)	To _(m)	Lost (m)	
0	0.9		Datum to	ground.				
0.9	3.6	Limestone	Casing.					
3.6	7.8	Limestone		erately hard, coarse grained, blocky to rubbly,	3.6	4.6	0	
				chealed limestone breccia with occasional rust	4.6	5.8	0	
				nts. At 4.4 m 2 2.5 cm band is brownish	5.8	6.7	0	
			grey and s	phaleritic. Jointing predominantly at 70° and 40°.	6.7	7.6	0.6	
					7.6	8.5	0.8	
7.8	19.3	Chlorite		n, moderately soft, fine grained, foliated, rubbly,	8.5	9.4	0.6	
		Schist		hist with blocky, limey bands and occasional intervals	9.4	10.7	0.5	
				lorite schist and/or mud. Jointing is predominantly	10.7	11.3	0	
				tion at 70° and at 70° across foliation.	11.3	12.2	0.2	
			Contacts v	with limestone above and below are abrupt and broken.	12.2	13.7	0.3	
					13.7	15.2	0.6	
					15.2	15.8	0.1	
					15.8	16.8	0.5	
			11.4 - 9 cn	n rusty chlorite schist.	16.8	17.7	0.5	
			13.8 - 6 cm	n rusty chlorite schist.	17.7	18.9	0.5	

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## Hole No. DDH91-3

Depth		Rock Type	Description		Core	Loss	
From	То			From	То	Lost	
<u>(m)</u>	(m)			(m)	(m)	(m)	
•		-	14.2 - 15 cm Rusty chlorite schist with some clay.	18.9	19.8	0.1	
			15.5 - 15.8 Rusty chlorite schist with some clay.	19.8	20.7	0.2	
			16.2 - 18.0 Loose, intensely broken, muddy chlorite schist with				
			bands of rusty schist and clay.	20.7	21.9	0.2	
				21.9	22.9	0.2	
			19.0 - Blebs of oxidized sulphides in schist.	22.9	24.4	0	
				24.4	25.9	1.4	
19.3	24.3	Limestone	Mottled grey, moderately hard, massive, rubbly to sound, coarse	25.9	26.5	0.5	
			grained, rehealed limestone breccia becoming vuggy with depth;	26.5	26.8	0.3	
			especially from 22.6 m to 24.3 m where vugs have rusty infilling.	26.8	27.4	0	
			Irregular bands (stylolites?) of black carbonaceous material	27.4	29.0	0	
			give limestone a mottled texture.	29.0	30.5	0.2	
				30.5	32.0	0.1	
			20.2 - 3 cm Grey, sandy, limey seam.	32.0	33.5	1.1	
			20.6 - 20.7 Grey sandy, limey seam.	33.5	34.4	0.1	
			21.5 2 cm Light rusty clay @ 70°. Lost core from 21.5 m to	34.4	35.1	0	
			21.9 m may be oxides.	35.1	36.6	0.6	
			22.5 - 9 cm Grey limey mud seam @ 70°.	36.6	38.1	0.6	
24.3	26.5	Chlorite	Grey green, moderately soft, rubbly, fine grained chlorite schist	38.1	38.7	0.6	
		Schist	with bands of limestone and numerous rust stained joints.	38.7	39.9	0.5	
				39.9	40.5	0.6	
26.5	27.0	Oxidized	Light rusty brown, very soft, clay oxides with sand to gravel sized	40.5	40.8	0.3	
		Zone	limestone fragments.	40.8	41.1	0.2	
				41.1	41.4	0.1	
27.0	36.6	Limestone	Grey, moderately hard, sound, coarse grained, massive, rehealed	41.4	42.1	0.2	
		· · · · · · · · · · · · · · · · · · ·	j, j,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, _,, _	42.1	43.0	0.5	

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Hole No. DDH91-3

Depth	Rock Type	Description		Core	Loss
rom To			From	То	Lost
<u>m) (m)</u>			<u>(m)</u>	<u>(m)</u>	<u>(m)</u>
		limestone breccia with intervals of chlorite schist and			
		light rusty brown clayey oxides. Jointing predominantly at 45°			
		to 50°.	43.0	44.2	0.6
			44.2	44.8	0.4
		27.4 - 12 cm Grey sandy to clayey limey mud.	44.8	45.4	0
		28.3 - 9 cm Chlorite schist with 1 cm rusty clay.	45.4	46.0	0.6
		Contacts broken and abrupt at 70°.	46.0	46.6	0.2
			46.6	47.2	0.2
			47.2	47.8	0.1
		29.0 - 20 cm Rusty chlorite schist.	47.8	48.8	0.5
		31.5 - 12 cm Brownish bands of sphaleritic limestone.	48.8	49.1	.0
		32.1 Rusty clay mixed with gravel sized limestone fragments.	49.1	50.3	0.6
		3.5 m Core loss from 32.0 m to 33.5 m likely oxides.	50.3	50.6	0.1
		33.5 - Trace of rusty clay.	50.6	51.5	0.1
		34.0 - 34.1 2 cm Rusty clay at 70° and 1 cm at 20°.	51.5	51.8	0.1
		34.6 - Trace of rusty clay.	51.8	52.4	0.1
		35.7 - 2 cm Rusty clay.	52.4	53.3	0.1
		35.9 - Trace of rusty clay.	53.3	54.9	0.8
5.6 39.9	Chlorite	Grey green moderately soft, rubbly to blocky, foliated,	54.9	55.2	0.3
	Schist	fine grained chlorite schist with rusty and limey bands. From	55.2	55.8	0
		38.1 m to 39.9 m only 0.1 m of core recovered of very soft	55.8	56.4	0.3
		silty to sandy fragments of crushed (sheared?) chlorite schist with	56.4	57.0	0.2
		a trace of sphalerite. Foliation at 45°.	57.0	57.6	0.2
9.9 48.8	Oxidized	Light rusty brown to dark reddish brown, very soft to soft, clayey	57.6	58.2	0
	Zone	oxides.	58.2	58.8	0

#### 

#### Hole No. DDH91-3

Depth		Rock Type	Description		Core I	Loss	
From (m)	To (m)	2100m -JP0		From (m)	To (m)	Lost (m)	
<u>,111 /</u>	<u> (111)</u>		39.9 - 44.0 Light yellowish brown to orange brown clayey oxides. 44.0 - 44.3 Limestone.	58.8	59.4	0.2	
40.0	(1.0	T :	44.3 - 47.8 Orange to reddish brown clayey to silty oxides. 47.8 - 48.8 Limestone pebbles in rusty clay matrix.	· · ·			
48.8	61.0	Limestone	Grey, moderately hard, rubbly to blocky, massive, rehealed limestone breccia with rusty joints predominantly oriented at 45° and 70°. 48.8 - 49.7 Limestone pebbles and cobbles in rusty silk matrix.				· .
			50.3 - 50.7 Limestone pebbles with light yellow silt coating. 50.7 - 61.0 Core is less oxidized.				
			<ul> <li>51.0 - 6 cm Soft sheared limestone at 85°.</li> <li>51.5 - 51.8 Rubbly limestone with light yellowish brown to orange brown clay coating.</li> </ul>				
			51.8 - 61.0 Rubbly to blocky limestone with lightly yellowish	50.4	(0.0	0.4	
			brown to orange brown clay in joints.	<b>59.4</b>	60.0	0.4	
51.0			END OF HOLE.	60.0	61.0	0.5	

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NOTE: 1) All measurements in metres unless otherwise noted. 2) All angles measured with respect to core axis.

### ALPHA GOLD CORP

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#### DRILL RECORD - DOLMAGE CAMPBELL LTD.

Coord. 9,970 mN		Hole No. DDH91-4
Elev. 1,480 m Length 65.5 m	Project Lustdust Property	Date Sept. 4/91
Azimuth 06°	Location: Approximately 50 m SW of trench.	Logged by: J. Rotzien

Core size NQ Dip -65°

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 Purpose: Test downdip extension of intersection in DDH91-3.

Depth	Rock Type	Description		Core	Loss
From To	• •		From	То	Lost
<u>(m) (m)</u>			<u>(m)</u>	<u>(m)</u>	<u>(m)</u>
0.7		Datum to ground.			
.7 1.8		Casing.			
8 7.9		Mottled grey, moderately hard, blocky to sound, massive, coarse	1.8	3.0	0
		grained limestone with stylolites.	3.0	4.6	0
		From 6.7 m to 7.9 m limestone is more broken.	4.6	5.8	0
		Contact with chlorite schist below is sheared with 2 cm of clayey	5.8	6.7	0
		gouge at 70° to core axis. Numerous joints at 0°, 20°, 45° and 60°	6.7	7.6	0
		are all rust stained. One joint at 3.4 m contains 8 cm of rusty clay.	7.6	9.1	0.9
			9.1	10.4	0.4
			10.4	10.7	0
9 12.	6 Chlorite	Grey green to rusty brown, moderately soft, rubbly to blocky,	10.7	11.6	0
	Schist	foliated, fine grained chlorite schist with blebs and bands	11.6	12.2	0
		of limestone and traces of pyrite. The contact with the limestone	12.2	12.8	0
		below is shattered and sheared. Jointing is predominantly parallel	12.8	13.7	0.1
		to foliation at 50° to 60°.	13.7	15.2	0.7
			15.2	15.5	0.2
			15.5	16.8	0.4

2

### Hole No. DDH91-4

Depth		Rock Type	Description		Core 1	Loss
From T	Го			From	То	Lost
<u>(m)</u>	<u>(m)</u>			(m)	<u>(m)</u>	<u>(m)</u>
12.6 1	6.9	Limestone	Grey, moderately hard, rubbly to sound, vuggy, massive, coarse	16.8	18.3	1.3
			grained, rehealed limestone breccia with numerous rusty joints	18.3	19.8	1.1
			as in 1.8 to 7.9. Trace to 1% sphalerite on some joint surfaces.	19.8	20.7	0.1
				20.7	21.6	0.1
				21.6	22.9	0.8
16.9 2	.4.1	Mixed Unit	Grey to grey green to rust brown, moderately hard to soft, rubbly	22.9	24.1	0.5
			to blocky, vuggy, finely interlayered rehealed limestone and	24.1	24.7	0.3
			chlorite schist with minor intervals of rusty clay. Jointing	24.7	25.9	0.6
			predominantly parallel to foliation in chlorite schist at 75°.	25.9	27.1	0.6
				27.1	28.6	0.3
				28.6	29.0	0
				29.0	30.5	0.4
24.1 3	7.2	Limestone	Grey, moderately hard, rubbly to sound, massive to vuggy,	30.5	32.0	0.1
			coarse grained, rehealed limestone breccia with 1-3% sphalerite	32.0	33.5	0
			in short intervals around zones of rusty clay. Jointing	33.5	35.0	Ō
			predominantly at 60° to 70° and 30°.	35.0	36.6	Ō
				36.6	38.1	0.8
				38.1	39.6	0.8
				39.6	41.1	1.1
		· · ·		41.1	42.1	0.5
			27.1 - Fractured limestone with a trace of rusty clay.	42.1	42.7	0.6
			28.6 - As at 27.1.	42.7	43.3	0.5
			28.8 - 1.5 cm Rusty clay.	43.3	43.9	0.6
			29.0 - 6 cm Rusty clay.	43.9	44.5	0.5
			29.1 - 3 cm Rusty clay.	44.5	45.1	0.4
			29.7 - 1.5 cm Rusty clay.	45.1	46.0	0.6

## Hole No. DDH91-4

Depth		Rock Type	Description	-	Core	Loss
from m)	To (m)			From (m)	To (m)	Lost (m)
			29.5 - 1.5 cm Rusty clay.	46.0	46.6	0
			30.9 - 9 cm Rusty clay.	46.6	47.2	0.1
			31.1 - 1.5 cm Black to rusty yellow clay.	47.2	47.8	0.3
			31.7 - 1.5 cm Dark brown rusty clay with 15 cm of sphaleritic	47.8	48.8	0.1
			limestone.	48.8	49.1	0.5
			32.6 - 1.4 cm Rusty clay.	49.1	49.4	0.4
			33.0 - 1.5 cm Rusty clay.	49.4	50.0	0
			33.2 - 3 cm Rusty clay.	50.0	50.3	0
			33.6 - 3 cm Rusty clay.	50.3	51.5	0.6
			33.8 - 3 cm Rusty clay.	51.5	52.4	0.5
			34.1 - 34.9 Light rusty silt.	52.4	53.3	0.6
			35.2 - 9 cm Rusty clay.	53.3	53.9	0.3
			36.6 - 6 cm Rusty clay.	53.0	55.2	0.4
				55.2	56.4	0.5
57.2	58.7	Oxidized	Light yellowish brown to dark reddish brown, very soft to moderately	56.4	57.3	0.8
		Zone	soft, rubbly, clayey to sandy oxides. From 43.9 m to bottom intensity	57.3	58.2	0.7
			of oxidation decreases with remnants of vuggy sulphides and chlorite	58.2	59.4	0.5
			schist. Contacts with limestone above and below are broken and abrupt.	59.4	60.0	0.6
			37.2 - 39.2 Orange to reddish brown sulphides.	60.0	61.6	0.1
			39.2 - 40.1 Grey, vuggy limestone.	61.6	62.5	0.
			40.1 - 41.1 Reddish brown oxides with very low recovery.	62.5	63.1	0.1
			41.1 - 42.7 Yellowish brown clay.			
			42.7 - 45.1 Reddish brown oxides with little clay recovered.			
			45.1 - 46.6 Yellowish to orange brown clay.			
			46.6 - 52.1 Reddish brown oxides with minor intervals of olive grey			
			clay and numerous pieces of harder core. At 49.4 m 3 cm of massive			

Depth		Rock Type	Description	- 	Core	Loss
-	To	Rook Type	Deterption	From	То	Lost
(m)	(m)			<u>(m)</u>	<u>(m)</u>	<u>(m)</u>
	····· · · · · · · · · · · · · · · · ·		sulphides.			
			52.1 - 53.9 Yellowish brown to reddish brown oxides and grey to			
			greenish grey chlorite schist.			
			53.9 - 58.2 Reddish brown silty to gravelly oxides.			
			58.2 - 58.7 Mixed reddish to yellowish brown and grey green to black clay	у.		
			Possible shear at contact.			
8.7	63.1	Limestone	Grey, moderately hard, blocky to rubbly, coarse grained, massive			
			limestone with intervals of yellowish brown clay. Jointing			
			predominantly at 75° and 45°.			
			59.3 - 3 cm Yellowish brown clay.			
			59.4 - 60.0 No recovery.			
			60.0 - 60.4 Yellowish brown clay.			
			61.6 - Trace yellow brown clay.			
3.1			END OF HOLE			
J.1 -						
			NOTE: 1) All measurements in metres unless otherwise noted.			
			2) All angles measured with respect to core axis.			

### ALPHA GOLD CORP

#### DRILL RECORD - DOLMAGE CAMPBELL LTD.

		th 55.9 m uth 244°	Project Lustdust Property Location: 10 metres south of Trench			Date S	DH91-10 Sept. 4/91 : J. Rotzien	
Core	size NC	) Dip -	70°	Purpose: Test for location and dip of footwall.				
Dep		Rock Type		Description		Соге		
From <u>(m)</u>	To <u>(m)</u>				From (m)	To <u>(m)</u>	Lost (m)	
0 0.6	0.6 3.6	Limestone	Datum to Casing.	ground.				
3.6	22.2	Limestone	Grey, mod rehealed li	erately hard, blocky to sound, vuggy, coarse grained mestone breccia with calcite veinlets up to 0.6 cm usty joints at 15°, 45° and 70°.	3.6 16.8 18.3	16.8 18.3 19.8	0 0.3 0.2	
			15.7 - Join	t at 0° with 0.6 cm brown sandy silt. t at 60° with 2.5 cm brown sandy silt. t at 60° with 2.5 cm brown sandy silt.	19.8 21.3 22.9 23.8	21.3 22.9 23.8 24.1	0.7 0.9 0.5 0	
22.2	26.1	Oxidized Zone		ge to dark brown, soft to very soft, clayey oxides with	24.1 25.0 25.9 26.8	25.0 25.9 26.8 27.4	0.5 0.2 0.4 0.1	
26.1	34.4	Limestone	rehealed li joints. 29.1 - 30.3	erately hard, rubbly to sound, vuggy, coarse grained, mestone breccia with traces of sphalerite and rusty Large core loss in light rusty brown clayey oxides. Light rusty brown clayey oxides.	27.4 29.0 29.6 29.9 30.5	29.0 29.6 29.9 30.5 31.4	1.4 0.5 0 0.5 0.1	

Hole No. DDH91-10	Hol	le N	lo. D	DH	91-10
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Depth		Rock Type	Description		Core	Loss	
From	То		<b>F</b>	From	То	Lost	
(m)	(m)	·		<u>(m)</u>	<u>(m)</u>	<u>(m)</u>	
_	• • •		•				
34.4	39.5	Oxidized	Black to reddish brown to light rusty brown, soft to very soft,	31.4	32.0	0	
		Zone	silty to clayey oxides with limestone intervals as listed below.	32.0	33.2	0.8	
				33.2	34.1	0.8	
			34.4 - 35.0 Large core loss in light yellowish brown clayey oxides.	34.1	35.1	0.6	
			35.0 - 36.3 Dark reddish brown to black clayey oxides.	35.1	36.3	0.2	
			36.3 - 36.7 Light yellowish brown to rusty brown silty oxides.	36.3	36.9	0	
			36.7 - 37.8 Limestone.	36.9	37.8	0.5	
			37.8 - 39.0 Light yellowish brown clayey oxides.	37.8	38.4	0	
			39.0 - 39.3 Limestone	38.4	38.7	0.2	
			39.3 - 39.5 Light yellowish brown silty oxides.	38.7	39.3	0.3	
				39.3	39.6	0	
				39.6	39.9	0.3	
				39.9	40.2	0.3	
9.5	43.7	Limestone	Grey, moderately hard, rubbly to blocky, vuggy, coarse grained,	40.2	40.8	0	
			rehealed limestone breccia with buff blebs and bands and rusty	40.8	41.4	0	
			joints. Large core losses likely due to presence of oxides.	41.4	42.1	0	
			J	42.1	42.7	0.4	
				42.7	43.3	0.4	
			43.1 - 43.3 Rusty brown clayey oxides.	43.3	43.9	0	
	• .			43.9	44.2	0.2	
3.7	47.2	Oxidized	Rusty brown to reddish brown, very soft, clayey oxides with	44.2	44.8	0.3	
		Zone	intervals of limestone.	44.8	45.1	0	
				45.1	45.7	0.6	
			45.1 - 46.0 No Recovery - likely oxides.	45.7	46.0	0.3	
			46.2 - 46.6 Limestone.	46.0	46.3	0.2	
			46.8 - 47.1 Limestone.	46.3	46.6	0.2	
				46.6	47.2	0.3	

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#### Hole No. DDH91-10

Depth		Rock Type	Description		Core	Loss
From				From (m)	To (m)	Lost (m)
				•		
47.2	55.9	Limestone	Grey, moderately hard, rubbly to sound, coarse grained	47.2	48.8	0.2
			rehealed limestone breccia with rusty joints and minor	48.8	50.3	0
			seams of rusty clay. Jointing predominantly oriented	50.3	51.2	0.1
			at 15°, 60° and 80°. Most of core loss due to broken	51.2	52.7	0
			limestone and rod vibration.	5Ż.7	53.3	0.3
			52.9 - 53.2 Soft rusty clay.	53.3	54.6	0.1
			54.8 - 6 cm Soft rusty clay.	54.6	54.9	0.1
			55.6 - 55.9 Soft rusty clay.	54.9	55.5	0.4
			beto beto bott rubly orașt	55.5	55.9	0.2
55.9			END OF HOLE.			

NOTE: 1) At 55.9 m bit worn out and excessive rod vibration and casing at 27.4 m. Hole stopped.
2) All measurements in metres unless otherwise noted.
3) All angles measured with respect to core axis.

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# Appendix III SUMMARY OF DIAMOND DRILL CORE SAMPLES

#### ALPHA BOLD CORPORATION

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LUSTDUST PROPERTY

SUMMARY OF DIAMOND DRILL CORE SAMPLES

	ICP		SULTS	ASSAY RES			LENGTH	TO	FROM	DRILL	йPLE	15/
	COMPLETED:	Sb	Zn	Ag	Au	DESCRIPTION	(m)	(m)	(m)	HOLE	NO.	;
	(y or n)   ====================================	(%)	(%)	(g/t)	(g/t) ==========			22222222				 !=:
	n i	N/A	N/A	1.03	0.14		1.5	21.3	19.8	DDH91-1	133651	
· .	· · · · · · · · · · · · · · · · · · ·	N/A	<del>- N/A</del>	1.03			<del></del>		21.3	-DDH91-1-		+
	n []]	N/A	N/A	1.03	<0.07		1.5	24.4	22.9	DDH91-1	133653	1
	n l	N/A	N/A	<0.7	<0.07		1.5	25.9	24.4	DDH91-1	133654	1
	1.5 <b>n 1</b>	N/A	N/A	<0.7	<0.07		3.0	29.0	25.9	DDH91-1	133655	1
	n i	N/A	N/A	<0.7	<0.07		1.5	30.5	29.0	DDH91-1	133656	Ŧ,
	n I	N/A	N/A	<0.7	<0.07		1.5	32.0	30.5	DDH91-1	133657	ł
	<u> </u>	N/A	<u>N/A</u>	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>						-DDH91-1-	133658	+
	nl	N/A	N/A	<0.7	<0.07		1.2	36.4	35.2	DDH91-1	133659	ł
	n l	N/A	N/A	5.14	<0.07	Oxide zone(10cm Ls N/S)		38.2	36.4	DDH91-1	133660	Ľ
	n l	N/A	2.55	4.46	<0.07	Yellow brown oxide	3.7	41.7	38.2	DDH91-1	133661	1
	n l	N/A	15.31	4.80	<0.07	Yell. brn. to ornge oxide!	2.3	44.2	41.9	DDH91-1	133662	1
	n i	N/A	8.01	3.43	<0.07	Ornge to ornge brn oxide 1	1.5	45.7	44.2	DDH91-1	133663	1
	11 1	N/A			<del>~{0.07</del> -	Hellow brown oxide		47:2	45.7		-133664-	+
	n t	N/A	11.54	4.46	<0.07	Yellow brown oxide	1.5	48.8	47.2	DDH91-1	133665	ł
	n J	N/A	21.17	8.23	<0.07	Yellow brown oxide	1.6	50.4	48.8	DDH91-1	133666	;
	n t	N/A	10.08	5.49	(0:07	Ornge to dk. brn oxide	1.4	51.0	50.4	DDH91-1	133667	1
	D 1	N/A	6.14	19.54	<0.07	Ornge to dk. brn oxide {		53.3	51.8	DDH91-1	133668	1
	n t	N/A	10.76	11.31	<0.07	Yell. oxide w/ black sand!		54.6	53.3	DDH91-1	133669	È
	<del>;</del>	N/A	18:92		<del>(0:07</del>	Yell. uxide w/ black sand:		56.2		-DDH91-1		+
	n l	N/A	9.46	6.17	<0.07	As above (5 cm Ls N/S)	1.7	57.9	56.2	DDH91-1	133671	ł
	n l	N/A	8.26	5.49	(0.07	Yell. to ornge oxide w/Lst		59.4	57.9	DDH91-1	133672	;
	n l	N/A	6.38	16.11	(0.07	Ornge to dk brn oxide		61.1	59.4	DDH91-1	133673	1
	. n 1	N/A	22.76	6.17	(0.07	Ornge to dk brn oxide		61.6	61.1	DDH91-1	133674	ł
		N/A	0.04	0.69	<0.07	<pre>IVuggy limestone</pre>		63.7	61.6	DDH91-1	133675	i
	<u> </u>	N/A	4.21	4.46		Rusty brn ox. (Bcm Ls N/S);			<del></del>		133676-	
	n	N/A	3.16	4.46	<0.07	Rusty brown oxide		55.6	54.3	DDH91-2	133677	!
	n l	N/A	3.66	7.20	<0.07	Ornge brown oxide		57.5	55.6	DDH91-2	133678	
	n i	N/A	3.4	6.17	<0.07	lOrnge brown oxide		59.1	57.5	DDH91-2	133679	;
	n j	N/A	2.33	9,94	0.14	1Dk.red brown oxide		60.4	59.1	DDH91-2	133680	1
	n l	N/A	0.55	2.06	<0.07	Yell. to ornge brn. oxide:		61.6	60.4	DDH91-2	133681	i
		N/A		11.65		Ornge to dk red brn axide:		63.0			-133682-	, 
	n i	N/A	0.47	15.09	5.59	<pre>/Dk brn oxide(12cm.sulph.);</pre>		64.9	63.0	DDH91-2	133683	i
		N/A	0.35	27.43	6.14	10k brown to black oxide {		66.4	64.9	DDH71-2	133683	1
	n t	N/A	2.35	12.69	2.33	iDk red brown sandy oxide :		68.3	66.4	DDH91-2	133685	4 1
	י יי	N/A	3.88	12.87	0.82	IDk to ornge brown oxide {		71.6	68.3	DDH71-2 DDH71-2	133686	1
	, u n 1	N/A	1.83	10.27	3.33	-		73.5	71.6	DDH91-2 DDH91-2	133687	;
	n i	N/ H	1.63	110.74	3.33	IDark brown oxide	1.8	19.0	/1.0	00N41-2	19998/	i

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#### ALPHA GOLD CORPORATION

#### LUSTDUST PROPERTY

#### SUMMARY OF DIAMOND DRILL CORE SAMPLES

C.						LUSTDUST PF	OPERTY						
(					SUMMARY	OF DIAMOND D	RILL CORE SAMF	LES				· · · · · · · · · · · ·	
	SAMPLE	DRILL HOLE	FRDM (m)	T() (m)	LENGTH (m)	J DESCRI	ITTER I	Au	ASSAY RE Ag	Zn	Sb	ICP ; Completed;	
	  ====================================					.	 ===================	(g/t)	(g/t)	(۲) ========	(%)	··(yor_n)) ·····	
	133688   133689	DDH91-2 DDH91-2	73.5	76.5 79-6		IDk to ornge l IDk brown to P		22.18	57.94	1.45 2.69	N/A N/A		
$\bigcap_{i=1}^{n}$	133690	DDH91-2	79.6	80.2	0.6	Limestone	· · · · · · · · · · · · · · · · · · ·	<0.07	1.03	0.1	N/A	n ł	
a de la companya de	133691   133692	DDH91-10 DDH91-10	22.3 35.1	26.1 36.3		Yell. to dk black for the second s		<0.07 0.10	5.49 23.31	10.58 24.4	N/A N/A	n 1	
	1 133693	DDH91-10	36.3	39.5	3.2	Yellow brown	oxide	<0.07	6.86	14.62	N/A	y ł	
	133694	DDH91-10 	43.7	45.1 43_0		Red brown ox  Yell_to_orn(		0.17 <u>(0.07</u>	10.97	7.45	N/A N/A	n   !	
5	1 133696	DDH91-3	43.0	44.3	1.4	lOrange brown	oxide	<0.07	12.69	3.58	N/A	n !	
	133697   133698	DDH91-3 DDH91-3	44.8 46.3	46.3		fornge brn ox. fornge to red			14.06 22.29	4.16 5	N/A N/A	n i	- "
	1 133699	DDH91-4	7.9	12.6	4.7	Chlorite schi		<0.07	1.03	0.09	N/A	n l	· · · · · · · · · · · · · · · · · · ·
	133700   133501	DDH91-4 	12.6	16.9 24.1		Limestone  Chl_schist_&	liantono	<0.07 <0_07	1.03	0.2	N/A N/A	n ¦	
: U.	l 133502	DDH91-4	34.3	34.7		Rusty silty		<0.07	1.37	0.18	N/A N/A	n	······
	133503	DDH91-4	37.3	39.2		fornge to red		<0.07	25.71	3.21	N/A	y ł	
	133504   133505	DDH91-4 DDH91-4	41.1 42.7	42.7		Yellow brown Red brown oxi		0.17 2.50	12.00 26.74	13.31 3.24	N/A N/A	n l	
· ••	133506	DDH91-4	45.1	46.6		Well. to orn		2.16	17.83	1.99	N/A	n i	
	<u>  133507</u>   133508	<u>DDH91-4</u> DDH91-4	<u>46.6</u> 49.1	<u>49.1</u> 50.0		<u>IRed brown oxi</u> IYellredbrn o			<u> </u>	<u>1.01</u> 0.24	0.09	<u>y</u>	-
~~~	1 133509	DDH91-4	50.0	52.1		IDk red brown		4.87	43.B9	0.4	0.07	y I	
	; 133510 ; 133511	DDH91-4 DDH91-4	52.1 53.9	53.9 56.4		Yell-redbrn Red brown oxi		7.89 3.12	43.89 25.03	0.37	N/A 0.06	n   y	
	1 133512	DDH91-4	56.4	58.7	2.3	lRed-yell bra	to blk oxide	0.69	18.17	2.41	0.11	y	
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# Appendix IV

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## ANALYTICAL RESULTS

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# Certificate of Analysis

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A DIVISION OF INCHCAPF INSPECTION & TESTING SERVICES

				A DIVISION	OF INCHCAI	4F INSPECTION &	HESTING SERV	DATE PRINTED:	3-0CT-91		
REPORT: V91-II	496.4 ( COM	PLETE )						PROJECT: NONE G		PAGE	1
AMPLE	ELEMENT UNITS	Au OPT	Ag OPT	Zn PCT	Zn PCT						
2 133651		0.004	0.03								
2 133652		<0.002	0.03								
D2 133653		<0.002	0.03								
2 133654		<0.002	<0.02								
2 133655		<0.002	<0.02								
_D2 133656	····	<0.002	<0.02						·		·····
2 133657		<0.002	<0.02								
2 133658		<11.002	<0.02								
D2 133659		<8.002	<0.02								
2 133660		<0.002	0.15			· · · · · · · · · · · · · · · · · · ·					
D2 133661		<0.002	IJ <b>.</b> 13	2.55			· · · · · ·	<u> </u>			. <u>.</u>
-72 133662		<11,11112	0.14	>10.10	15.31					1	
2 133663		<0.002	0.10	8.01							
<sup>L</sup> U2 133664		<11.11112	0.17	>10,00	14.40						1
D2 133665		<0.002	0.13	>10.00	11.54				,,,,,,,		
2 133666		<0.002	(1.24	>10.00	21.17			· · · · · · · · · · · · · · · · · · ·		<u> </u>	
D2 133667		<0.002	D.16	>10.00	10.08						
2 133668		<11.1102	0.57	6.14							
2 133669		<0.002	<b>U.33</b>	>10.00	10.76						
D2 133670		<0.002	0.25	>10.00	18.92						
2 133671		<0.002	0.18	9.46				· · · ·		• • •	
D2 133672		<11,002	0.16	8.26	•						
_D2 133673		0.005	0.47	6.38							
2 133674		<0.002	0.18	>10.00	22.76						
2 133675		<0.002	0.02	8.04							
2 133676		<0.002	(1.13	4.21							
2 133677		<0.002	0.13	3.16							-
D2 133678		<0.002	0.21	3.66							
2 133679		<0.002	0.18	3.40							
2 133680		0.004	0.29	2.33		······				 	
_D2 133681		<0.002	N.N6	0.55							
2 133682		11.(138	11.34	1.80							
<b>-</b> 2 133683		0.163	11.44	0.47							
D2 133684		0.179	<b>( , 8(</b> )	0.35							
2 133685		0.068	0.37	2.35		·			- <u>.</u>		
D2 133686		11.024	U.30	3.88			· · · · <u>- · · · · · · · · · · · · · · ·</u>				
2 133687		0,097	3.23	1.83							
2 133688		11.647	1.69	1.45							
D2 133689		0.052	0.51	2.69							- 2
D2 133690		<0.102	0.03	0.10					$\mathcal{I}$	0	
					<b></b>		······	9	M		-

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# Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES.

···[]	REPORT: V91-0	1564.4 ( COMPLETE					DATE PRINTED: 22-OCT-91 PROJECT: NONE GIVEN PAGE 1
	SAMPLE NUMBER	ELEMENT AU UNITS OPT	-	Zn PCT	Zn PCT	Sb PCT	
	D2 133501	<0.002		0.03			······
	D2 133502	<0.002		0.18		1	
	D2 133503 D2 133504	<0.002 0.00		3.21 13.31			
	D2 133505	0.073		3.24			
	D2 133506	0.06		1.99			
	D2 133507	0.260		1.01		0.09	
	D2 133508 D2 133509	0.170		0.24 0.40		0.07 0.07	
	D2 133510	0.230		0.37		0.01	
	D2 133511	0.091	0.73	1.02		0.06	
( n	D2 133512	0.020		2.41	·	0.11	
	D2 133513	0.010		1.18			
	D2 133514	0.00		3.73			
L <u></u>	D2 133515	0.013	0.56	9.01			
	D2 133516	<0.00		3.88		····	
	D2 133517	<0.002		3.45		0.07	
	D2 133518	<0.00		0.06			
	D2 133519 D2 133520	<0.00) <0.00		0.02			
1	02 133320	<b>\U.UU</b>	10.02	0.02			
	D2 133521	<0.00		0.02			
	D2 133522	<0.00		0.01		<0.01	
$\square$	D2 133523 D2 133524	<0.00) <0.00		0.02 0.03		<0.01	
	D2 133525	<0.00		<0.01			
	D2 133526	<0.00	2 0.02	0.01			
	D2 133527	<0.00		0.01			
	D2 133528	<0.00		0.02			
	D2 133529	<0.00		0.03			
	D2 133530	<0.00	2 <0.02	0.01	·		
in.	D2 133531	<0.00		<0.01	- · ·		
	D2 133532	<0.00		<0.01			
، دا ا	D2 133533 D2 133534	<0.00 <0.00		<0.01 0.02			
ไก่	D2 133534 D2 133535	<0.00		0.02			
			····				
	D2 133536	<0.00		0.01			
$[ \cap ]$	D2 133537	<0.00		<0.01			
	D2 133538 D2 133539	<0.00 <0.00		<0.01 0.01			
· ·	D2 133540	<0.00		0.01			
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			A DIVISIO	ON OF INCH	CAPE INSPEC	CHON & TES	TING SERVICES	NTEN 00	007 01			
REPORT: V91-01	564.4 ( CO)	IPLETE )						NTED: 22 None gi		PAGE	2	
 SAMPLE NUMBER	ELEMENT UNITS	Au Opt	Ag Opt	Zn PCT	Zn PCT	Sb PCT						
D2 133541 D2 133542 D2 133543		<0.002 <0.002 0.213	<0.02 <0.02 1.80	0.04 <0.01 0.78		0.09						-
D2 133544 D2 133545		0.144 0.048	1.25	1.18		0.10 0.14						
D2 133546 D2 133547 D2 133548 D2 133549		0.020 0.044 0.007 0.003	0.41 0.20 0.30 0.26	2.53 2.53 2.11 2.84		0.15 0.44 0.17 0.04						
D2 133550	-	<0.002	0.28		23.06	0.03				· · · · · · · · · · · · · · · · · · ·	· · ·	
D2 133551 D2 133552 D2 133553 D2 133554		<0.002 0.005 0.020 0.034	0.16 0.24 0.75 0.54	4.02 5.86 2.91 2.01		0.07 0.29 0.83 0.49		. •				
D2 1335548		0.071	0.58	0.32		0.52				······································	· · · · · · · · · · · · · · · · · · ·	
D2 133556 D2 133557 D2 133558		0.073 <0.002 0.003	0.75 <0.02 0.07	1.68 0.10 0.15		0.10 <0.01 <0.01						
D2 133559 D2 133560		<0.002	<0.02	0.02		<0.01 <0.01	;					
D2 133560 D2 133561 D2 133562 D2 133563		<0.002 <0.002 <0.002 <0.002	<0.02 <0.02 <0.02 <0.02	0.03 0.03 0.02		<0.01 <0.01 <0.01 <0.01						
D2 133564		<0.002	<0.02	0.03		<0.01 <0.01			·			
D2 133566 D2 133567 D2 133568 D2 133569		<0.002 <0.002 <0.002 <0.002 0.170	<0.02 <0.02 <0.02 <0.02 0.19	0.01 0.02 <0.01 0.15		<0.01 <0.01 <0.01 <0.01 0.11						
D2 133570 D2 133691		0.005 <0.002	0.19 0.16	14.86		0.08		·				
D2 133692 D2 133693 D2 133694		0.002 <0.002 <0.002	0.68 0.20 0.32	14.62 7.45	24.40							
D2 133695 D2 133696 D2 133697 D2 133698 D2 133699 D2 133699		<0.002 0.003 <0.002 0.005 <0.002	0.21 0.37 0.41 0.65 0.03	2.65 3.58 4.16 5.00 0.09	·							

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# Certificate of Analysis

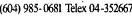
·      	REPORT: V91-(	)1564 <b>.</b> 4 ( CO	MPLETE )	A DIVISIO	ON OF INCHC	APE INSPFCT	ION & TESTIN	G SERVICES DATE PRINTED: 22-OCT-91 PROJECT: NONE GIVEN	PAGE	3
	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	Zn PCT	Zn PCT	Sb PCT			
	D2 133700		<0.002	0.03	0.20					
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# Geochemical Lab Report

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<u>t</u> .	REPORT: V91-0	1564.0 ( COMP	PLETE)						ROJECT: NO	D: 16-OCT DNE GIVEN		PAGE 1A	
	SAMPLE NUMBER	ELEMENT UNITS	(Ag PPM	Cu PPH	Pb PPM	Zn PPM	PPM	(Ni) PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
	D2 133503 D2 133507 D2 133508 D2 133509 D2 133511		23.2 23.2 16.2 45.6 26.7	1087 412 467 697 1384	>10000 4876 6696 8147 5794	>20000 8452 2000 3354 8234	50 19 15 12 34	88 <1 13 <1 16	20 6 2 5 3	88.2 82.2 <2.0 56.4 818.6	<5 <5 <5 <5 <5	>2000 >2000 >2000 >2000 >2000 >2000	1391 756 650 597 560
	D2 133512 D2 133517 D2 133522 D2 133523 D2 133523 D2 133525		15.6 5.0 <0.5 1.1 0.9	823 58 23 30 3	4186 941 18 15 6	18823 >20000 111 123 35	44 40 3 7 1	41 26 53 76 6	19 8 15 18 5	781.5 70.0 <2.0 <2.0 <2.0 <2.0	<5 <5 <5 <5 <5 <5	>2000 >2000 169 126 59	907 515 7 30 6
	D2 133530 D2 133535 D2 133540 D2 133545 D2 133545 D2 133550		<0.5 0.6 1.2 18.7 8.5	15 4 6 718 195	2 19 20 1413 335	81 84 115 13898 >20000	5 <1 2 37 175	25 <1 <1 18 86	16 6 <1 8 35	<2.0 <2.0 4.7 130.4 287.8	<5 <5 <5 <5 <5	39 69 310 >2000 >2000	8 7 10 1141 316
	D2 133693 D2 133698		6.6 21.0	224 309	373 289	>20000 >20000	128 64	77 36	15 9	104.2 806.1	<5 <5	>2000 >2000	319 364
		· .				· · · ·		. *		· · .			· · · · ·
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# Geochemical Lab Report

INCHCAPE INSPECTION	

			A DIVISIO	ON OF INCH	CAPE INSPEC	TION & TEST			D: 16-0CT	-91						
	REPORT: V91-0	1564.0 ( COMPLETE	)		PROJECT: NONE GIVEN PAGE											
	SAMPLE NUMBER	ELEMENT Fe Units Pct		Te	Ba PPM	Cr	 ۲	Sn	N N	Li	Ga	La				
	NUMDER	UNITS PU	FFA	PPM	PPA	PPM	РРМ	PPM	PPM	PPM	PPN	PPN				
	D2 133503	>10.00		<25	303	158	143	28	<20	10	<10	5				
FL.	D2 133507	>10.00		<25	762	. 57	<2	41	<20	3	<10	<5				
	D2 133508	>10.00		<25	857	56	<2	70	<20	<2	<10	<5				
	D2 133509	>10.00		<25	571	48	<2	51	<20	<2	<10	<5				
L	D2 133511	>10,00	166	<25	1108	79	<2	79	<20	<2	<10	<5				
	D2 133512	>10.00	4508	<25	1047	107	75	59	<20	12	<10	13				
	D2 133517	3.08		<25	518	42	87	21	<20	6	<10	16				
	D2 133522	2.92	451	<25	168	76	90	<20	<20	26	<10	34				
· · ·	D2 133523	3.58		<25	181	111	115	30	<20	41	<10	41				
	D2 133525	0.11	. 127	<25	49	14	39	<20	<20	<2	<10	8				
	D2 133530	2.47	508	<25	118	42	89	<20	<20	9	<10	58				
	D2 133535	0.07		<25	53	11	35	<20	<20	<2	<10	9				
	D2 133540	0.13		<25	53	6	33	<20	<20	$\overline{\sqrt{2}}$	<10	7				
	D2 133545	>10.00	) 330	<25	837	84	9	71	<20	2	<10	<5				
	D2 133550	>10.00	9617	<25	1181	89	227	91	<20	14	<10	37				
	D2 133693	7.01	4507	<25	1355	94	155	76	<20	18	<10	24				
	D2 133698	>10.00		<25	838	85	108	79	<20	Ĩ	<10	14				
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# Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES	

ſ	Ĵ.	A DIVISI REPORT: V91-01564.0 ( COMPLETE )								DIVISION OF INCHCAPE INSPECTION & TESTING SERVICESDATE_PRINTED: 16-0CT-91																				
																			<u>DATE PRINTED: 16-UC</u> Project: None Given											
				IPLE IBER		E	LEME			Ta PPM	T PC			A1 PCT		Mg PCT		Ca PCT		Na PCT		K PCT		Nb Ppm		Sr PPM		Y PPN		Zr PN
			D2 D2 D2	133503 133507 133508 133509 133511	; ; ;		·			$\hat{\nabla}$ $\hat{\nabla}$ $\hat{\nabla}$ $\hat{\nabla}$ $\hat{\nabla}$	0.7 0.0 0.0 0.0 0.0	4  4  3	0 0 0	. 38 1. 33 1. 32 1. 26 1. 54		0.23 0.06 0.08 0.05 0.06		1.23 3.36 2.95 2.39 1.58		0.18 0.07 0.08 0.08 0.12	1	0.65 0.19 0.22 0.15 0.19		37 8 20 <5 21		18 322 371 223 130		9 <5 <5 <5 10		7 <5 <5 <5 5 6
			D2 D2 D2	133512 133517 133522 133523 133525	· ·					\$ \$ \$ \$ \$ \$ \$ \$ \$	0.1 0.0 0.5 0.7 0.0	6 3 1	0 2 3	.73 ).97 2.65 ).20 ).06		0.45 0.37 4.06 2.74 2.63	>1 >1 >1	1.09 0.00 0.00 0.00 0.00		0.19 0.06 0.16 0.22 0.04	 	0.42 0.30 0.63 0.70 0.03		20 21 30 61 24		44 253 204 256 318		18 12 13 13 <5	1	27 12 73 00 <5
			02 D2 D2	133530 133535 133540 133545 133550				-	-	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.2 <0.0 <0.0 0.0 0.1	1 1 16	C . C	2.61 ).04 ).03 ).93 2.61	- -	1.49 2.49 2.33 0.13 0.60	>1 >1	0.00 0.00 0.00 1.52 1.66		0.28 0.04 0.04 0.31 0.14		0.61 0.02 0.01 0.38 0.63		24 14 25 21 8		248 174 176 46 31		18 6 <5 10 39		42 <5 <5 22 41
	   			133693 133698				-		<5 <5	0.0			3.07 1.32		0.87 0.45		5.93 1.45		0.14 0.13		0.67 0.42		10 19		55 31		27 25		42 23
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