

# **REPORT ON THE 2003**

# **EXPLORATION AND DIAMOND DRILLING,**

# LUSTDUST PROPERTY.

## **OMINECA MINING DIVISION, BRITISH COLUMBIA**

#### CANADA.

(93N / 11W)

FOR

ALPHA GOLD CORP.

BY



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For Each Drill Hole, Digital Folders Containing:

Compact Disc 1.	i. Diamond Drill Logs.
-	ii. Assay Intervals, Specific Gravity's, Standard Type.
	iii. Digital Core Photographs for Each Drillhole.
	iv. Detailed Core Photographs.

Compact Disc 2. I. Drill Core Assay Results. ii. Q/C Data: Drill Core. iii. ALS CHEMEX Analytical Techniques and Protocol. iv. Soil Geochemistry Assay Results and Soil Geochemical Standards. v. Digital Text Copy: 2003 Lustdust Report.

Compact Disc 3. I. Digital Drawing Files.

#### 1.0 SUMMARY

The Lustdust property comprises 238 contiguous, 2 and 4 post mineral claim units located in northcentral British Columbia, all of which are owned by Alpha Gold Corporation. The claims are underlain by Cache Creek Assemblage sedimentary and volcanic rocks which lie immediately west of a major regional and terrane bounding fault, the Pinchi Fault. Supracrustal rocks are cut by intrusive bodies ranging widely in composition from calc-alkaline diorite to monzonite to sub-alkalic rhyodadacite (Ray et al., 2002).

Gold and copper mineralization is hosted within a folded, upright to locally overturned, east verging sequence of a steeply west-dipping, northwest-striking section of limestone and siliceous phyllites. Gold and copper mineralization occurs in several forms, all of which are related to this Eocene magmatic hydrothermal system. Predominant styles of mineralization targeted by the 2003 exploration program included:

- Structurally controlled high sulphide veins and breccias, associated with the a significant mineralized fault system, the Number One Mineralized Zone.
- 2. Carbonate hosted, precious metals enriched mantos, the Number Three Mineralized Zone.
- 3. Cu-Au skarns; associated with both pro and retrograde skarn assemblages forming in limestones or at the contact between mafic tuffaceous rocks and limestones.

The entire system, except for molybdenum rich veins and stockworks, is auriferous, 0.5 to >1 g/t gold values are common throughout. Bonanza gold grades, > 30 g/t Au over 1 to 9.7 m widths have been cored and may be associated with massive sulphide replacement bodies. The system is strongly zoned over at least 3000 m laterally and shows polyphase intrusive and mineralization characteristics typical of major Au-Cu-Zn-Pb-Ag skarnreplacement systems found throughout the northern and southern cordillera.

Alpha Gold's 2003 exploration program was directed towards:

- Exploration of the up and down dip continuity of the strong goldcopper intersections obtained from the impressively mineralized Canyon Skarn during the 2002 exploration program.
- 2) Drill testing of structurally controlled veins and replacement bodies within the historic Takla Silver Mine area, the Number 1 Zone.
- 3) Re-examination of the nature of gold and base metal mineralization within the gold rich mantos of the Number 3 Zone.

#### TABLE 1.

#### 2003 DIAMOND DRILL SUMMARY ASSAYS:

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DDH No.	DIP	AZI.	UTM N.	UTM E.	FROM (m)	ТО (m)	WIDTH (m)	T.Q. (m)	Au (a/t)	Ag (q/t	Zn (%)	РЬ (%)	Cu (%)
'Number 1 Zone.					(,	()	(,	(,		10 <b>1</b> -	()		
DDH 3-02	45	270	6160598	347945	94.50	95.60	1.10	151.20	1.53	144.60	1.31	0.71	
DDH 3-04	55	280	6160527	347949	100.70	102.30	1.60	178.00	1.76	705.70	0,22	1.70	
(DDH 3-05	45	270	6160465	347935	68.50	70.60	2.10	148.70	0.65	179.60	1.33	0.62	
DDH 3-05	45	270	6160465	347935	77.00	77.90	0.90	148.70	0.80	432.00	1.58	0.42	
DDH 3-06	65	270	6160465	347935	77.40	78.70	1.30	121.90	4.46	1565.00	1.31	1.19	
DDH 3-08	50	270	6160394	347952	73.80	79.30	5,50	96.60	1.17	458.10	0.72	0.73	
DDH 3-08	50	270	6160394	347952	84.00	86.00	2.00	96.60	2.66	814.80	0.68	0.99	0.05
DDH 3-09	67.75	270	6160394	347852	135.00	140.00	5.00	154.50	13.27	898.60	5.70	1.11	
DDH 3-09	67.75	270	6160394	347852	142.80	143.30	0.50	154.50	1.64	13.70	0.44		
'DDH 3-10	45	270	6160351	347939	40.30	42.00	1.70	86.90	0.83	2.30			
DDH 3-11	67.5	274	6160351	347939	74.30	81.70	7.40	105.50	4.77	529.00	0.78	0.19	
DDH 3-19	45	270	6160795	347930	124.50	128.00	3.50	157,30	1.50	83.70	2.46	2.42	
DDH 3-20	57.5	270	6160795	347930	159.00	160.00	1.00	1 <b>6</b> 6.70	3.78	203.00	2.84	4.44	
Number 3	Zone.												
DDH 3-27	45	65	6161022	347450	81.90	85.30	3.40	128.00	1.16	33.60	2.33	0.40	0.10
DDH 3-27	45	65	6161022	347450	93.50	100.10	6.60	128.00	1.32	15.67	3.54	0.15	
DDH 3-28	66	65	6161022	347450	62.90	70.50	7.60	142.10	0.02	14.20	6.46	0.12	
DDH 3-28	66	65	6161022	347450	117.00	120.20	3.20	142.10	6.66	12.64	13.71	0.31	
DDH 3-29	77	65	6161022	347450	55.50	57.40	1.90	200.30	2.61				
DDH 3-30	45	65	6160969	347465	97.90	103.10	5.20	151.50	20.51	96.90	2.47	6.74	
Canyon S	karn.												
DDH 3-33	52	50	6161841	346844	350.60	351.60	1.60	377.30	0.65	559.00		0.20	3.83
DDH 3-35	67	50	6161913	346819	351.00	354.70	3.70	471.20	3.63	64.09	0.13		5.20
DDH 3-35	67	50	6161913	346819	409.30	411.50	2.20	471.20	1.42	32.90			1.26
DDH 3-36	56	50	6161913	346819	259.70	260.90	1,20	422.70	1.80	19.50			0.42
DDH 3-36	56	50	6161913	346819	356.80	360.60	3.80	422.70	0.68	20.30			0.82
DDH 3-36	56	50	6161913	346819	364.10	366.60	2.50	422.70	0.82	28.44			0.84
DDH 3-37	51	52	6161927	346742	420.50	426.00	4.80	489.80	0.43	21.10			0.70



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All widths are drill indicated.

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Fault to the west of the main Lustdust skarn, manto and replacement system. The 2003 drill program has been successful in demonstrating that gold, silver and base metal mineralized zones are hosted not only by the Canyon Skarn mineralized zone but also within the gold rich mantos of the Number 3 Zone and by structurally controlled veins and breccias within the Number 1 Zone. These positive changes in the technical database at Lustdust warrant significant followup. A proposal for the 2004 exploration on this property includes:

- The Number 3 Zone and the Number 3 Extension zone has a surface expression of greater than 600 m. The very successful drilling of this target in 2003 tested only 50 m of strike length of this system. More extensive drill testing of this zone is warranted and should form an important component of the 2004-exploration season. A minimum of 12 NQ holes totaling 2500 m should be collared in this area.
- Appreciation of the structural style of the Number 3 Zone may benefit the interpretation and rationale for drill testing of the Number 4b Zone. A preliminary test of mineralization in the 4b zone should be done in a similar manner to the 2003 drill testing of the Number 3 zone. A minimum of 6 NQ drillholes totaling 1500 m should be collared in this area.
- 3. Soil geochemical surveys have been successful in developing base and precious metal soil geochemical anomalies north of the Canyon Skarn (Dream Creek Area) and along the trace of the Pinchi Fault. Several open ended soil geochemical anomalies have been identified in both areas, these surveys should be expanded early in the 2004 exploration season. Soil geochemical surveys in the Dream Creek area may reveal not only the on-strike continuation to the Canyon Skarn zone but possibly the northward continuation of the Number 3 precious metals enriched oxidized mantos. Forty to fifty line kilometres and 1000 B-Horizon soils should be collected in the Dream Creek and north Bralorne Takla Mercury Mine area. Magnetometer surveys may prove to be a useful and cost effect mapping tool and should be used in conjunction with geochemical surveys.
- 4. Allow for 2000 m of drilling to follow-up geochemical geophysical targets. The discovery and development of "new" mineralized zones would be an important component of the 2004 exploration program.
- Because of excessive deviation of the deeper drillholes in the Canyon Skarn area no further deep, > 300 m, surface drilling in this area should be done unless a directionally controlled drill program is initiated. The alternative to directionally controlled drilling would be drilling from an underground platform.
- Shorter, < 300 m, drillholes may be useful in the development of a more accurate resource base within the Canyon Skarn area. Eight, shallow drillholes, 2000 m drilling, could be considered for this zone.
- 7. Some effort should be made to develop a preliminary scoping study of the mineral resources within the Canyon Skarn, Number 1, 3 and 4b

Mineralized Zones. Due to the lack of survey control data associated with any drillholes collared prior to 2002, this scoping study will be qualitative in nature. However, there is need to development realistic criteria for the quality and quantity of mineralization currently known within the main mineralized zones on this property.

As in the 2002 exploration season, positive results continue to emerge from each successive exploration program conducted on this property. The diversity in the style of mineralization continues to be a hallmark of Lustdust, as is quality of the gold copper intersections associated with these mineralized zones. Lustdust remains one of the strongest precious metals skarn systems, and exploration projects, in the northern cordillera. The focus on the 2004 exploration season will be to move one or more of these zones closer towards an engineering - development decision. A recommended budget of \$1,000,000 (Canadian) has been forwarded to initiate the 2004 exploration program.

#### 2.0 INTRODUCTION AND TERMS OF REFERENCE

The report has been commission by the management of Alpha Gold Corporation. The report documents all results of the 2003 exploration and diamond drilling program and outlines all significant changes in the geological database. The report is based on an extensive review and compilation of private corporate reports and documents as well as publicly available geological and scientific papers.

The report is also based on the authors personal knowledge of the property obtained during mid-May to mid-September, 2003. During this period, the author was directly involved in the design and implementation of an extensive drill program, in the development of detailed 1:1,000 scale geological sections, revisions to the previous geological plans and in providing technical advice to the ongoing 2003 exploration program. The author also supervised the geochemical surveys conducted in the Bralorne – Takla Mine and Dream Creek areas and conducted grid geological mapping in this area.

#### 3. DISCLAIMER

The author has been responsible for the direction and development of the 2003 exploration program on the Lustdust property. This included core logging, the design and implementation of soil geochemical surveys, environmental and geotechnical remediation, the development of sub-surface cross sections and modifications to the surface geological map base. In the execution of this program, the surface geological map base developed by several individuals, most particularly by Dr. Gerry Ray and his co-workers (Ray et al., 2002), has

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been extensively utilized. The author has also relied on many of the previous geological reports on this property, particularly the work of (Evans, 1996, 1997; and Megaw (1999, 2000, and 2001). All of these individuals are well qualified in their fields of expertise. It is the writer's belief that all of these reports have been constructed without prejudice and represent and important asset to the current exploration results of this property.

In a property with an abundance of historical drilling, conducted over a 60year period, it would not be surprising if not all drill collars have been identified. This is in fact the case. Although a substantive effort has been made to accurately locate, survey and identify historical drill collars, not all of these have been identified and not all-historical drill results, or the results of other technical surveys, are available.

#### 4. PROPERTY DESCRIPTION AND LOCATION

The Lustdust Property is located in the Omineca Mining Division of northcentral British Columbia, NTS 93N/11W at latitude 55 34' North {Northing 6160175} and 125 25' West (Easting 347850), UTM Zone 10, NAD 23, Fig. 1.

Pursuant to agreements made July 15, 1989 and February 21, 1992 Alpha Gold acquired interest in 77 mineral claims known as the Lustdust Property, Omineca Mining Division. In 2003, net smelter returns were purchased for these claims. Technical and legal details of this purchase are available in the corporate and legal offices of Alpha Gold. Also during 2003, additional claims had been acquired by purchase of 8 two post claims, which overlie the historic Bralorne – Takla mine.

With these recent additions, Alpha Gold Corporations land holdings in the district total 238, contiguous claims, for a total of 4808 hectares (10,512) or 48 km<sup>2</sup> (17 mi<sup>2</sup>, Figure 2). A complete list of mineral claims, the type of claim and their expiry dates are provided on Table 2. No perimeter or legal surveys have been conducted across these claims and the writer has not personally examined the position of legal corner posts. Six principle mineralized zones are identified on the property including the Number 1 (Takla Silver Mine), 2 and 3 mineralized zones, the Number 4B zone and the Canyon Creek Skarn and lastly the historic mercury mineralization at the Bralorne Takla Mercury Mine. To the writer's knowledge, the property is not subject to any environmental liabilities or other encumbrances.

All necessary permits for the 2003 program of work were filed with Ministry of Energy, Mines and Petroleum Resources. Approval for 2003 work was obtained and any requirements outlined by annual inspection and safety reviews were acted upon. Upon completion of the 2003-work program a Notice of Completion of Work was filed and acknowledged by that ministry.

# Location Map - Lustdust Property, British Columbia, Canada



FIGURE 1: Map showing the location of Lustdust Property in British Columbia

#### 5. 0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The property is located approximately 210 kilometers northwest of Prince George, B.C. and 36 km east of Takla Landing, where there is a B.C. rail-line. Lustdust is located immediately west of the old Bratone Takla Mercury Mine (Minfile 093N 008) and encompasses the Takla Silver Mine (Minfile 093N 009), Figure 1.

Access is gained by traveling approximately 55 km along a paved road from Fort St. James towards Tachie Lake, then 70 km along the Leo Creek road, 62 km along the Driftwood Road, 25 km along the Fall-Tsayta road and 3 km along the Silver Creek road. A total distance of approximately 215 km northeast of Ft. St. James.

The terrain is moderate, ranging in elevation from 1000-1525 m on the property. Lower elevations are covered by widely spaced lodgepole pine; while at elevations above 1200m, forest cover consists of overmature spruce and balsam. Summers are short and rainy, but even under these conditions, many of the drainages are seasonal in nature with progressively diminished flows during the late summer and fall. Snow accumulations, during average winters, persist from late September through May-June at the higher elevations. Most of the historical exploration programs conducted on the property have been completed during the June to October field season.

#### 6. HISTORY

Lustdust has seen a number of operators since the original discovery of the Number 1 Zone in 1944. These are listed in Table 3. Despite the fact that exposure is limited and that previous efforts have been hampered by poor understanding of the deposit type, new occurrences have been found on a regular basis both along strike to north-northwest and south-southeast, to the west and at depth.

· · · · · ·	TABLE 2				
	ALPHA GUL	D: LUSIDUS	T CLAIMS,	October 2003	1
		Record Number		Type or	Expiry
	Name	Number	of Units	Claim	Date
	441/ 4	246007			15/10/2040
	M.V. 1	240001	1	2 post	15/10/2013
·	M.V. 4	240000	1	2 0051	15/10/2013
	VVOW	230000	12	2 post	15/10/2013
		231 200	20	4 post	15/10/2013
	NI A 1_	231310	<u></u>	4 post	15/10/2013
		229186	10	4 posi	15/10/2013
		239187	16	4 post	15/10/2013
	link Lanom	240667	12	4 posi	15/10/2013
		218016	15	4 pusi 4 post	15/10/2013
	LD-1 I D_2	691767M	1 1	2 noet	15/10/2013
	1123	691768M	<u>i</u>	2 pust	15/10/2013
		691769M	<u> </u>	2 puer 2 noet	15/10/2013
	I D-5	681770M	<u> </u>	2 post 2 nost	15/10/2013
<del>.</del>	ID-6	681771M	1	2 nost	15/10/2013
	LD-7	681772M	1	2 nost	15/10/2013
	ID-8	681773M	1	2 post	15/10/2013
	I D-9	681774M	l1	2 nost	15/10/2013
	LD-10	681775M	1	2 nost	15/10/2013
	LD-11	681776M	1	2 post	15/10/2013
	LD-12	681777M	1	2 post	15/10/2013
	LD-13	681778M	<del>ا ا</del>	2 post	15/10/2013
	LD-14	681779M	1	2 post	15/10/2013
··· ·	LD-15	681780M	1	2 post	15/10/2013
······	LD-16	681781M	1	2 post	15/10/2013
	LD-17	681782M	1	2 post	15/10/2013
	LD-18	681783M	1	2 post	15/10/2013
	LD-19	681784M	1	2 post	15/10/2013
	LD-20	681785M	1	2 post	15/10/2013
	LD-21	681786M	1	2 post	15/10/2013
	LD-22	681787M	1	2 post	15/10/2013
	LD-23	681788M	1	2 post	15/10/2013
	LD-24	681789M	1	2 post	15/10/2013
	LD-25	681790M	<u>1</u>	2 post	15/10/2013
 	LD-26	681791M	<u> </u>	2 post	15/10/2013
	LD-27	681792M	<u> </u>	2 post	15/10/2013
	LD-28	681793M	1	2 post	15/10/2013
	LD-29	681794M	<u> </u>	2 post	15/10/2013
	LD-30	681795M	<u> </u>	2 post	15/10/2013
	LD-31	681796M	ļ	2 post	15/10/2013
·····	LD-32	68179/M	<u>ا</u>	2 post	15/10/2013
	LD-33	561/90M 430976		2 post	15/10/2013
	LD-34	120070	20	4 post	15/10/2013
·····	10.35	210000	20	4 post	15/10/2013
	1 0 37	218602	20	4 post	15/10/2013
	11.39	238603	20	4 pusi 4 poet	10/10/2013
·····	11.30	238604	20	4 post	45/40/2013
	N/A	404726		2 nost	45/40/2013
	N/A	404727		2 publi	45/40/2013
	N/A	404728	i	2 pusi 2 nost	15/10/2013
	N/A	404729	i	2 post	15/10/2013
· · · ·	N/A	404730	i	2 post	15/10/2003
	N/A	404731	├i	2 post	15/10/2003
	N/A	404732	i	2 post	15/10/2003
	N/A	404733	it	2 post	15/10/2003
TOTAL	56 claims		238		15/10/2013
		· · ·		1 1	





# TABLE 3 EXPLORATION HISTORY SYNOPSIS

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Year	Operator	Claims	Zone	Work Performed
1944		Wow #1	1	1-Zone discovered and staked
1945	McKee Gp. Leta Expl. Lt	WOW #1 d.	1	i renching, 106.7 m of ariting
1952-	Bralome	Wow 1, MV1	1,2,3	5306 m of trenching,
1954	Mines Ltd.	MV2, M	4b	1429 m of drilling
1960	Noranda Car	IEX	**	7 rock cuts, 34 test pits, 200m hand and 1508m cat trenching
1963	Bralome	Wow #1	1	Sampling
1964	Takla Silver Mines Ltd.	••	••	229 m of drifting
1966	н	**	14	229 m of underground ddh
1968	**	**		1337 m of surface and 573 m of
	<b>Anchor Mine</b>	s Ltd.		underground ddh, 90 kg bulk sample
1978	Granby	MV1,2	1, 2,	Pulse EM, surface ddh
	Mining Corp	K,L,M	3, 4b,	
1980	T#	LM		Airborne mag, VLF, ground mag, VLF
				soil survey, 2 ddhs
1981	Noranda	LM	4b	8 ddhs (7 wildcat)
	Expln. Co.			Soil sampling and property mapping
1986	Welcome	Wow 1, MV	1, 3	Sampling
	North Mines	LM	40	
4000	Ltd.	101		
1986	Pioneer	VVOW 1 1,2,	2 16	Geological survey
4004	Alaba	IVIVI, IVI BANZA	3,40 2	906 6m of ddb (10 bolos)
1991	Alpha		3	social of duri ( to notes)
1002	Gola	i M	4h	Trenching, 1520m ddh (30 holes)
1992	14	L, M	4b	24 ddhs
1996	Teck	Lustdust	23	Geology soils trenching
1000	Expln	Euoluuol	4b. 4	
1997			11	Soil sampling, 3062.8 m drilling in
				16 ddhs
1998	Alpha	**	1, 2,	1,103m of drilling in 14 ddhs
	Gold		3	•
1999	**	17	3, 4b, CCS	3050m drilling in 18 ddhs, trenching
2000		99	CCS	4680m drilling in 29 holes.
2001	н	L	Porph	yry Mo-Cu 2945 m in 10 holes
			CCS	2664 m in 8 holes
			Total:	5609m in 18 holes
2002	**	L,M	CCS	7790.4 m in 19 NQ boreholes.
2003	Alpha	C.G's,	CCS,	7,908 m in 42 NQ boreholes
	Gold	L,M	Vein	B horizon soil surveys, 37 km geochem.



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#### 7.0 GEOLOGICAL SETTING

#### 7.1 Regional Geology

The Lustdust property is located within the Cache Creek Terrane directly west of the Pinchi Fault, Figure 3. The Pinchi Fault can be traced for 600 km through north-central B.C. and is believed to have been a major thrust fault which was later reactivated as a large right-lateral strike-slip fault (Paterson, 1977). In the project area, the Pinchi Fault separates Cache Creek rocks from the Jurassic Hogem Batholith and Triassic-Jurassic Takla rocks to the west. The Cache Creek Group is of Pennsylvanian-Permian age and consists of a >500 kilometerlong, >3000 meter thick, complexly deformed sequence of interbedded argillites, cherts, carbonates, and mafic to ultramafic volcanic and plutonic igneous rocks. Alpine peridotites and ophiolite fragments are locally present, especially to the north of Lustdust (Soregaroli, 1999, Schiarizza and MacIntyre, 1999).

Although some rock units are locally metamorphosed to blueschist facies, the overall metamorphic grade throughout the area is low. The argillites and cherts are typical fine-grained, thinly bedded deep-marine sediments (Monger, 1977). The volcanic rocks are tholeiitic and include andesitic to basaltic tuffs, flow-breccias, and pillow basalts all of oceanic affinity. The carbonates are dominated by bioclastic to micritic and algal-bound shallow-water facies limestones, interpreted to have been deposited in a carbonate bank or reef environment (Monger, et al, 1991). Regional studies have emphasized the observation that contacts between most of the different lithologies are abrupt and probably are faults. However, detailed studies, executed close to Lustdust (Sano and Struick, 1997), have found limestone conglomerate and sandstones with volcanic fragments, and limestone fragments within the argillite-chert section. Similar relationships are seen in core at Lustdust and locally show uninterrupted gradation from massive limestones to mafic volcanic dominated successions.



Figure 3: Location map of Lustdust property showing major intrusions and Terranes. Geology simplified from The MapPlace. (from: Ray and Webster, in progress)



The entire package is folded with a well-developed axial planar foliation along a north-northwest strike trend typical of the entire Intermontane Belt in which the Cache Creek Terrane lies (Gabrielse and Yorath, 1992). A wide range of Jurassic to Tertiary intrusions cut the Cache Creek Assemblage and many of these are emplaced along the prominent NW-trending structures and stratigraphic breaks. Numerous mercury occurrences are present along the length of the Pinchi Fault (Albino, 1987) and a few gold and base metal occurrences are present within Cache Creek rocks near the Pinchi fault including; the Lustdust, Indata and Axelgold properties. There are at least two alkalic gold-copper Porphyry systems in the immediate Lustdust area: J49 and Axel Properties (Schiarrizza, 2000).

#### 7.2 Lustdust Property Geology: Summary

The Lustdust property is underlain entirely by Permian Cache Creek units that form upright to overturned asymmetrical, west-dipping, north-plunging folds. These parallel the north-northwest trending Pinchi fault that lies along the eastern property boundary. The stratigraphy strikes N-NW with generally vertical to moderate westerly dips. Very little bedding is preserved and structural information is rare except in road cuts. The explored part of the property is dominated by a variety of intrusions which cut carbonate rocks interbedded with graphitic and calcareous phyllites, cherts, cherty argillites, and mafic tuffs (Figure 4). Detailed rock relationships are shown on the 1:5000 scale geological maps of this area.

A composite intrusive center and linear dyke array, the "Glover Porphyry", occurs in the northwest and western portions of the explored part of the property. The stock is well zoned and includes rocks ranging from mafic to intermediate to felsic composition. Pervasiveness of biotite hornfels and skarn increases towards the stock (Evans, 1998). Some of the intrusive phases contain significant amounts of magnetite and appear to be responsible for the large magnetic anomaly shown on published regional maps and in Alpha's 2000 ground-magnetics survey (Butler and Jarvis, 2000). Geochemical analyses, of several different intrusive phases, indicates that some have borderline alkalic composition similar to intrusions related to Au-Cu porphyry deposits elsewhere in the region including the "Babine Intrusions". Others have calc-alkaline compositions typical of B.C. copper skarns (Ray and Webster, 1997).



(from Ray et al., 2002).

Several styles of mineralization are present on the property that appear zonally related to each other. From most proximal to distal these are:

- 1. Molybdenum-Copper-Gold Porphyry-style mineralization consisting of quartz-K-spar, pyrite, molybdenite and/or chalcopyrite veinlets associated with potassic, sericitic, and propylitic alteration in intrusive rocks (Glover Porphyry).
- 2. Multi-stage Garnet-Diopside skarn cut by Cu-Au-Ag-Zn bearing structures with surrounding dispersed Cu-Au mineralization (Canyon Creek Skarn).
- 3. Structurally and stratigraphically controlled **massive sulfide Zn, Au, Pb,** Ag, Cu replacement bodies [CRD] (4b, 3, and 2 Zones) and their oxidized equivalents.
- Sulfosalt-rich veins (Zone 1) which follow faults and are strongly associated with fine grained, linear felsic dykes containing high values of Au, Ag, Pb, Zn, Sb and Mn.

## 7.3 Stratigraphy

Interpretations of primary stratigraphy are challenged by the strong regional deformation imposed on these rocks. In the area, extensive drilling of the 4b and Canyon Skarn zones, several coherent rock panels may be described. These include:

- (i) Hangingwall assemblages to the Canyon Creek Skarn are dominated by a sequence of thinly compositionally laminated siliceous phyllites, and or argillaceous phyllites, often with strong biotite compositional layers. These rocks are interpreted as ribbon cherts by British Columbia Geological Survey geologists with extensive regional experience. The clastic component, argillaceous phyllites, of the these rocks may increase towards the skarn – calc silicate horizon, particularly to the south towards the 4b zone.
- (ii) Skarn assemblages are developed in either weakly compositionally layered limestones or calcareous mafic tuffs.
- (iii) Footwall assemblages to the Canyon Creek Skarn are dominated by rocks which are typically described as cherty argillites and or cherts. Rocks in the footwall are similar to hangingwall rocks but qualitatively appear to have a higher proportion of quartz compositional layers and decreased biotite lamella.

Stratigraphic relationships may be more fully described. Descriptions match the legend descriptions which accompany the 1:1000 scale cross sections of this report.

# Supracrustal Rocks:

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Limestone (L)	Light to medium grey, sucrosic, recrystallized limestone, locally with weak styloitic cleavages. These rocks bleach to off-white adjacent to skarn fronts. They may contain numerous internal horizons of both dark grey clastic beds and mafic tuffaceous horizons.
Limy Phyllite (Lp)	Clastic content within these rocks increases. Grey – brown, argillaceous interbeds are often intercalated with thin, cm scale, calcareous lamella.
Calcite Knot Limestone (Lcs)	Calcite knot limestones may contain either white cm scale calcite aggregates within a darker grey matrix, or they may be a gradational unit to mafic tuffs where10-30% oval to cuspate calcite clasts are supported by a strongly calcareous, light to medium green matrix.
Siliceous Phyllite (SP)	These rocks are defined by well defined compositional layers formed by alternating foliation parallel biotite +/- lesser white micas, with quartz compositional layers. The protolith of these rocks is interpreted, by many workers, as ribbon cherts.
Chert (C)	With an increase in quartz content, to greater than 75% rock volume, the rocks are logged as cherts. Minor increases in biotite compositional layers may shift these rocks into a Cherty Phyllite (CP) field.
Argillite (A)	Argillite is a composite unit that includes a wide range of fine-grained, essentially non-calcareous, carbonaceous, thinly bedded sedimentary rocks. It includes argillites (A), cherty argillites (CA), thinly bedded cherts, carbonaceous argillites (CA). Graphitic layers are common throughout. Locally, the thinly bedded units contain fine-grained, continuous pyrite or pyrrhotite layers that appear to be part of the original sediments. As with all supracrustal rocks, these units are strongly deformed.
Mafic Tuffs (Mt)	Mafic tuffs are well-foliated and often well compositionally layered dark green, to green and white mottled rocks with highly chloritic and locally calcitic matrices. The chlorite is interpreted to result from alteration of mafic-intermediate tuffaceous

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materials. 1-30 cm limestone fragments are the dominant clasts, but fragments of intermediate and mafic volcanic rocks are also present. These rocks contain up to 2% finely disseminated pyrite and/or pyrrhotite and are geochemically anomalous for Pb, Zn, and Cu. Grading in limestone fragment size is common. Evans (1997, 1998) believed that there was only one mafic tuff unit and that it was a good marker bed. Previous fieldwork and core logging show that there are multiple mafic tuff units in the section and they show enough lateral variation that their utility as marker beds may be reduced.

#### Intrusive Rocks

Mineralization throughout Lustdust shows a close association to the Glover Porphyry; a composite intrusive complex consisting of stocks and dikes ranging from diorite to monzonite to rhyodacite. Cu-Au skarn forms abundantly along stock and dike contacts (and replaces these rocks) and Zn-Au-Pb-Ag-Cu replacement mineralization is locally well developed along dike margins at more distal locales. Overall, mineralization shows zonation relative to the inferred center of the Glover Porphyry complex. Some of the compositional variations can be attributed to potassic alteration and silicification, which change the original intrusive composition and appearance in hand specimen, but the majority of the phase differences are real. Intrusive rock units include:

Monzonite (M) A medium-grained equigranular to weakly porphyritic rock composed of plagioclase>K-feldspar, abundant elongate hornblende and euhedral biotite. Quartz is present, but in minor amounts. This unit crops out extensively as dikes throughout the southern and southwestern area, and the dikes seem to widen towards the 4b Zone. These dikes locally host replacement mineralization along their flanks.

Megacrystic The intrusive phase is defined by the presence of very Monzonite (Mu) strongly plagioclase +/- quartz porphyritic monzonites. Contacts of these rocks with finer grained phases may be gradational.

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Quartz Monzonite (QM) These rocks are quartz rich, containing 10 -15% free quartz as discrete mm scale phenocrysts. The rock is also hornblende and biotite porphyritic and may be beginning to shift into a granodiorite field.

Diorite (D) Diorites are fine to medium grained, medium to dark graygreen and composed of plagioclase, biotite and hornblende phenocrysts. Accessory magnetite is locally abundant. The phases are distinguished largely on the presence and the abundance of biotite and hornblende. This distinction can be difficult to make in the finer-grained units where potassic alteration has replaced the hornblendes with secondary biotite. Color is determined by mafic phenocryst content and the degree of chloritic alteration.

Monzodiorite (MD) A shift to increased percentages of fine grained matrix plagioclase and a decrease in mafic phases, hornblende and biotite are the characteristics of this unit. Free quartz is not identified.

Felsic Dykes (Fd) Felsic dykes occur across the property. These are weakly porphyritic felsic rocks with sparse to prominent 1-3 mm quartz and feldspar phenocrysts set in a sugary fine-grained matrix of quartz and feldspar. They are locally well flow-banded with banding generally parallel to their overall orientation. Felsic dykes are often pervasively argillically altered or silicified making them difficult to distinguish from altered fine-grained monzonite. Felsic dykes common in the 1-Zone commonly have vein mineralization along one or both contacts.

Felsic Dykes (FPd)Distinctive elongate, sericitized feldspar phenocrystsPlagioclaseare abundant within this rock matrix and may exceedPorphyritic35% rock volume. Coarse quartz phenocrysts, 5-8%.

Mafic Dykes (Md) Medium to fine grained, undifferentiated mafic dykes.

Ultramafics (UM) Green to dark black uralitically altered ultramafic intrusions. In their unaltered state, the intrusions are likely pyroxenites. Elevated interstitial magnetite is common. Pyrrhotite is locally noted. The intrusions likely trace major strands of the Pinchi Fault. True brittle-ductile fabrics are common within these intrusions

#### 7.4 Structure:

Rocks underlying the Lustdust property have experienced multiple deformational processes. In the absence of geochronological data, definitive age relations between these events are difficult to establish. However, overall map patterns, rock fabrics and discordant rock fabrics in drill core suggest that at least two penetrative deformational processes, D1 and D2, have influenced the current map pattern.

The development of a pronounced planar, S1 fabric, often co-planar to bedding and primary compositional layers, defines an early D1, deformational process. These fabrics are most likely axial planar to the tight to isoclinal, upright to west overturned, east-verging folds. The data of Ray et al., (2002) suggests these folds plunge approximately 40-50° to the north-northwest. The current rock distribution has been profoundly influenced by these structures.

The rotation of S1 fabrics is evidence for post D1 processes. Although S1 fabrics are clearly rotated, S2 penetrative foliations are weakly developed and may be measured in only very selective core and rock samples. Ray et al., (2002) suggest that D2 folds have similar orientations to D1 folds, but tend to be slightly more open, and have shallower, 20° northwest plunges.

Regionally, folds in the Cache Creek assemblage are typically open (Schiarizza and McIntyre, 1999), but on the Lustdust property folds are generally asymmetrical and overturned with short, shallow, west-dipping limbs and long, steep limbs. Locally they are isoclinal. Tight folding is likely due to buttressing against the Pinchi Fault, which is believed to have originally been a major thrust fault (Paterson, 1977). Where observed, these folds have a 10-60 degree N-NW plunge and minor axial plane shears are common. The noses of antiforms are structurally thickened and these enhanced thickness' and structurally fractured zones appear favorable for manto mineralization (Evans, 1998; Megaw, 1999).

The entire property has a strong NW-trending grain reflecting bedding, tight asymmetric folding, and bedding plane faults. This structural fabric closely controlled intrusive emplacement and most of the dykes of the Glover stock are strongly elongated along this N-NW structural grain. The most important, and consistent, fault structures demonstrated in drill core are roughly coplanar to bedding. Some of these faults have the appearance of early east verging reverse faults, which are largely lithologically controlled and mostly identified in the immediate hangingwall to the Canyon Creek Skarn. These faults may be rotated into slightly steeper positions by latter extension faults.

The strongest and most strike discordant structural zone on the property is the structural zone and dyke system which hosts the Number 1 veins. This mineralized fault structure has a nearly north-south strike and moderate to steep west dip. In marked contrast, all structures, including lithology and major skarn bodies on the Lustdust property have strike relationships which average 150° to 160° and steep west dips.

Compilation of the sub-surface data with the surface geological plans (Figure 5) suggests that right stepping lithologic offsets, which occur both to the north and south of Canyon Creek are related to fold vergance effects, an east verging, right stepping antiform rather than a fault related offset. Mapping of carbonates on a district-wide scale (Evans 1997; 1998) shows a wide outcrop band on the southern portion of the property that appears to decrease steadily to the north, largely disappearing at Canyon Creek. This may be an artifact of limited outcrop exposures. Integration of the subsurface information with diamond drilling suggests the northern continuity of the most easterly limestone package may be significantly better than initially interpreted (Figure 5). The limestone is asymmetrically folded and plunges north at 15-20°.

#### 8.0 DEPOSIT TYPES

Carbonate replacement deposits (CRD) typically grade from lenticular or podiform bodies developed along stock, dike, or sill contacts to elongate-tabular bodies referred to as chimneys and/or mantos depending on their orientation. Limestone, dolomite and dolomitized limestones are the major host rocks. Ores grade outward from sulfide-rich skarns associated with unmineralized or porphyry-type intrusive bodies to essentially 100% polymetallic massive sulfide bodies. Both sulfide and skarn contacts with carbonate host rocks are razor sharp, and evidence for replacement greatly outweighs evidence for open-space filling or syngenetic deposition (Titley & Megaw, 1985). In reduced, high to lowtemperature systems, proximal to distal metal zoning generally follows: Cu (Au, W, Mo), Cu-Zn (Ag), Zn-Pb-Ag, Pb-Ag, Mn-Ag, Mn, and Hg. This zoning may be very subtle and large scale (Prescott, 1916; Morris, 1968) or tightly telescoped and smaller scale (Graf, 1997).

Many different features of CRDs tend to be well zoned at district, deposit and hand-sample scales. The most important zonations are: 1)- Ore and gangue mineralogy and metal contents; 2)-Orebody geometry; 3)- Intrusive geometry and composition; 4)- Structural controls on mineralization; 5)- Alteration and; 6)lsotopic characteristics of wallrocks. In general, the largest systems show the best-developed zoning and repetition of zoning and paragenesis. Zoning tends to be most extensive in the elongate manto and chimney systems where individual zones may extend over kilometers vertically and laterally (1998). Zoning in large contact skarn systems is typically more compressed because of telescoping and repeated overprinting (Graf, 1997). In all cases, multi-phase mineralization is a reliable indicator of large systems.

CRD mineralization is associated with polyphase intrusions that evolve from early intermediate phases towards late, highly evolved felsic intrusions and

related extrusive phases. The intrusions most closely related to mineralization are usually the most evolved phases and these are not exposed in many districts. Dikes and sills characterize the intermediate reaches of CRDs and there is often evidence for multiple dike/sill emplacement events. These intrusions may be compositionally homogeneous or there may be compositional evolution between dike/sill phases (Graf, 1997). Textures range from porphyritic to aphanitic, locally with narrow gradations between textural domains. Chimney and replacement veins are the most common orebody types associated with these intrusions, although mantos locally occur along sill contacts. Intrusive stocks commonly occur beneath or adjacent to the most proximal portions of CRD systems, although in many cases they do not crop out. Where intrusions are exposed, they are generally less than 5 km<sup>2</sup> in areal extent. These stocks are generally polyphase with compositions grading from early diorite to late granite. Texturally, these intrusions range from equigranular to porphyritic and massive to highly fractured with time and proximity to paleosurface. The central stocks may be barren, contain porphyry copper or molybdenum systems, or have marginal zones with porphyry copper or molybdenum affinities (Megaw, 1998). In many systems, the early phases of the intrusion have associated skarnoid or barren skarn, whereas skarn and ore mineralization are related to later, more highly differentiated phases (Meinert, 1995 and 1999; Graf, 1997; Megaw et al., 1998).

Structural fabrics are the dominant control on mineralization in CRDs, as they control intrusion emplacement and channel ore fluids into favorable host strata. Most CRDs lie in fold-thrust belts on major structural domes, arches, anticlines, synclines or homoclines, and most districts have structural grains controlled by faulting and fracturing related to regional deformation (Megaw et al. 1988). Orebodies are often elongate and parallel district-wide structural trends, but may not be restricted to a given structure over great lengths.

The gradations seen in single orebodies or districts suggests that the various manifestations of the deposit type can be considered part of a spectrum (Einaudi et al. 1982; Megaw et al. 1988; Titley, 1993) ranging from:

- A. Stock contact skarns: formed against either barren or productive stocks
- B. Dike and sill contact skarns
- C. Dike and sill contact massive sulfide deposits
- D. Massive sulfide chimneys
- E. Massive sulfide mantos
- F. Epithermal veins

Several features make CRDs highly desirable mining targets including, 1) Size-CRDs average 10-13 million tons of ore and the largest range up to >50 million tons, 2) Grade-ores are typically polymetallic with metal contents ranging from 2-12% Pb; 2-18% Zn, 60-600 g/T Ag, Tr-2% Cu and Tr-6 g/T Au. Many have by-product credits for Cd, W, In, Ga, Ge, Bi, and S, 3) **Deposit morphology**-orebodies show good continuity **4**) **Extraction and Beneficiation**-CRDs are typically metallurgically docile, amenable to low-cost mining methods and the environmental footprint is minimal.

Massive sulfide bodies lacking an associated intrusion characterize the distal zones of CRDs. These commonly have the form of high angle to vertical slab-like replacement veins or elongate pipe-like chimneys, or low angle to horizontal tabular or elongate tongue-shaped mantos, generally crudely stratabound. Mantos may be developed entirely within selected beds or groups of carbonate beds, or may occur with one or more non-reactive, relatively impermeable sedimentary or intrusive rock contacts.

Development of carbonate rock alteration in CRDs, like mineralization, is highly variable in type and in scale. The major alteration types are:

1. Skarnoid or hornfels: These are typically very fine-grained, mineralogically simple, calc-silicate and silicate assemblages formed through thermal metamorphism without significant addition of outside components. Skarnoid typically forms from a limestone or shaly limestone precursor, whereas hornfels forms from shale or limy shale precursors. Hornfels and skarnoid commonly develop in the thermal aureole around the largest volume (often early) intrusive phase and may aid in ground preparation for later metasomatic events. Hornfels mineralogy may be zoned with respect to the thermal center, commonly with pyroxenes proximal and biotite more distal. Skarnoid and hornfels often contain abundant fine-grained pyrite or pyrrhotite, but seldom significant amounts of ore-metal sulfides unless it has been overprinted by subsequent hydrothermal events.

2. Skarn: Skarns are fine to very coarse-grained, often mineralogically complex, calc-silicate or calcic-iron silicate assemblages formed through metasomatism with significant addition of outside components. Endoskam is skarn formed at the expense of intrusive rock, exoskarn is skarn formed at the expense of wallrocks to the intrusion, most commonly carbonates. Skarn commonly develops around lesser volume, more fluid-rich intrusive phases and may overprint hornfels or skarnoid to varying degrees. Anhydrous calc-silicate minerals (dominantly pyroxenes and garnets) characterize the early "prograde" skarn phase generated during rising temperatures related to magma emplacement. Hydrous calc-silicate minerals (dominantly amphiboles, chlorites, and clays) formed at the expense of predecessor prograde minerals characterize the later "retrograde" skarn assemblage. Retrograding occurs as temperatures drop and variable amounts of magmatic fluids and groundwater invade the skarn zone. Sulfides may be co-deposited with the calc-silicates, but more commonly are introduced along structures that cut the skarn, replacing skarn minerals and unskarned wallrocks. Complex mineralized skarn systems typically show multiple intrusive phases and a repetition of sulfides replacing calc-silicates

silicates, presumably reflecting successive intrusive and hydrothermal events. In some systems, different compositions of skarn and sulfides characterize each phase (Megaw et al., 1998).

**3. Marbelization and Recrystallization:** These are present in virtually all CRD systems and range from narrow zones around mineralization to zones 100s of meters wide (Titley & Megaw 1985; Megaw et al. 1988).

**4. Silicification or Jasperoid development:** Fine-grained silica replacements of carbonate rocks, with or without appreciable amounts of metals, and are very common in the peripheries of some CRD systems (Titley & Megaw 1985; Megaw et al. 1988).

#### 9. MINERALIZATION:

#### 9.1 General

The Lustdust porphyry-skarn-replacement system is at least 3000m long and 1000m wide, Figure 5. The property is systematically zoned from a Mo-Cu-Au Porphyry system to Cu-skarn to Zn-replacement mantos to Ag-Pb-Zn replacement veins developed along parallel, en echelon, mineralized zones extending away from the porphyry. The entire Lustdust system, outboard of the porphyry, is auriferous (0.5 to >1 g/T Au values are common) and associated with a minimum of three mineralized skarn horizons.

The Canyon Creek Skarn is now known to be zoned over at least 500m vertically and increasingly shows the polyphase intrusive and mineralization characteristics typical of Cu-Zn skarn-replacement systems throughout the American Cordillera, such as San Martin, Zacatecas, Mexico and Antamina, Peru. So far, despite widespread anomalous values, no significant volumes of porphyry-style mineralization with economic grades have been found

Principle characteristics of the main mineralized zones may be summarized:

#### 9.1 Zn-Pb-As-Sb Vein Zone: 1-Zone

The 1-Zone, located at the southern end of the property, was the site of the 1944 discovery of mineralization on the property. Here, the limestone and graphitic phyllites are cut by numerous monzonite and felsic dikes. Sulfosalt veins composed of nearly massive pyrite, sphalerite, galena, jamesonite, stibnite, arsenopyrite and freibergite with lesser open-space filling quartz and calcite occurs both within the sedimentary rocks and along dike contacts. Dunne and Ray (2002) also report traces of very fine-grained calc-silicates in these bodies. Three separate veins have been recognized, all of which appear to dip steeply i

west. Felsic dikes are closely related to all three veins, but the veins do extend beyond the dikes in many places. As has been noted in the 2003-drill program, the Number 1 Zone has the strongest structural control of any occurrence on this property. The presence of a regional antiformal crest is likely to be important to the development of significant mineralized zones as is the main fault structure.

Argentiferous Manganese Oxide Mineralization (AMOM) occurs throughout the Number 1-Zone. AMOM is a typical distal alteration product in certain major CRD systems (Megaw, 1998) and the 1-Zone is strongly anomalous in Mn (Evans, 1997). Based on inclusion chemistry and mineralogic relationships Dunn and Ray (2002) suggested that the mineralization in this zone might be related to high sulphidation type veins. However, the alteration mineralogy and textures of quartz and other gangue minerals do not well support the high sulphidation model for these veins.

The principal vein was explored by underground drifting and drilling in the 1945 and 1964-65 seasons. The three ore-shoots (minimum 2 m true widths) above the adit level were reported to grade 3.6 g/t Au, 780 g/t Ag, and 5% combined Pb and Zn with 5% Sb. Historic drilling had notoriously bad recovery problems, so in many cases grade was not reported for potentially significant intersections. Compilation of all available data during the 2003 exploration season, clearly indicated that the currently known strike length of the Number 1 Fault exceeds 750 m with a significant mineralized zone developed over approximately 450 m.

#### 9.3 Zn-Au-Ag-Pb CRD Mineralization: 2, 3, 3 Extension, and 4b-Zones

Mineralization in these zones consists of roughly stratigraphically concordant massive sulfide bodies, "mantos", and their oxidized equivalents. The mantos are best developed along permeable and karsted (?) carbonate beds in close proximity to chlorite altered mafic tuff beds. The mantos occur through the 2-4b-Zones and appear to merge into the Canyon Creek Skarn Zone. Drilling results have failed to find substantial discordant chimney feeders to these mantos, although narrow feeders may have been hit locally (Megaw, 1999). The mantos occur dominantly in structurally thickened and deformed zones along the crests of antiforms. There is some evidence for nesting, or repetition, of mantos in successive limestone beds, giving an overall morphology reminiscent of the stacked "saddle-reef" mantos.

#### 2-Zone

The 2-Zone is a minor oxidized replacement zone similar to the 3-Zone. The number 2 zone is located very close to the crest of a regional antiform which lies just north of the Number 2 Zone trenches. Surface sampling indicates an average of 2.3 g/t Au, 109 g/t Ag, 2.16 % Zn and 2.09 % Pb across an average of

5.3 meters true width. This zone has an strike length, based on surface oxidation, of approximately 200 meters. Its continuity at depth is much more problematic as significant intersections have not been obtained, to date, from sub-surface drill holes.

#### 3 and 3 Extension Zones

The 3-Zone contains the largest identified CRD resource identified to date at Lustdust. It is thoroughly oxidized to depths of greater than 100 subsurface. The style of mineralization may be highly amenable to low cost heap leach extraction processes.

The thickest portions of this manto zone occur in carbonates surrounding a mafic tuff bed along the crest of a regional-scale antiform. The manto may have the form of an oxidized saddle reef replacement body. Drilling has failed to find a feeder vertically beneath it, suggesting that it was probably fed from one end with fluid migration concentrated along the non-reactive tuff bed. Evans (1997) felt that the conduit for this system was down dip along the west limb of the antiform (possibly with a NW rake). This zone, based on the trace of oxidation exposed in surface trenches has a strike length, which exceeds 600 m's. The Number 3 zone appears to weaken to the south, south of the Number 2 Zone trenches. The northern extension of the Number 3 Zone has received very limited exploration, as has the down dip extensions to this mineralization.

#### 4b-Zone

The 4b-Zone CRD manto is developed along the 4b Antiform, a tight fold, with 60-degree west dips and a 10-15 degree plunge to the NW. The trace of this fold lies some 300 m's to the west of the Number 3 Zone antiform. The two zones are linked by a north-northwest plunging synform. Mineralization occurs as a series of aligned, discontinuous (?) massive sulfide pods (with sparse calc-silicate minerals) following the crest of the fold and also along the contact between limestone on the east and hornfelsed graphitic phyllites to the west (the "4b Horizon", Figure 6). A mafic tuff horizon within the limestone appears to be a major conduit for fluid movement as is seen in the 3-Zone. However, the 4b-Zone is essentially unoxidized: sphalerite, arsenopyrite and coarse-grained well-zoned pyrrhotite and pyrite are prominently displayed in surface trenches along the zone.

#### 9.4 Canyon Creek Skarn (Formerly "4-Zone")

The Canyon Creek Skarn [CCS] or the 4 Zone, is the skarn-replacement zone lying north of the 4b-Zone. The discovery of this skarn is recent enough that it was not included in Ray and Dawson's (1998) compilation on B.C. skarns. Prior to the 2001 season, this zone had been cut by 41 drill holes (97-9, 10, and 11; LD99-03 through 12; and LD00-02 through 29) and a few trenches (Evans, 1997, 1998; Megaw 1999, 2000). A high percentage of the pre-2001 holes in skarn cut high-grade Cu-Au mineralization along structures cutting garnetpyroxene skarn. Some of these mineralized structures were surrounded by zones of dispersed mineralization a few meters wide (Megaw, 1999; 2000).

At shallow levels, the skarn is composed of early coarse-grained greentan grossular-andradite garnet with minor fine-grained greenish-yellow diopside and rare vesuvianite or pyroxene (Ray et al., 2002). Specularite is locally very common as euhedral plates. At depth, a brown garnet stage crosscuts and overprints the green stage, and at greater depths, a red-brown garnet stage appears (Megaw, 1999). These minerals replace massive limestone and locally intrusives (endoskarn). Drilling in 2001 showed that endoskarn increases with depth (cf. LD01-44, 45). Hornfels is also overprinted by skarn, especially on the north side of Canyon Creek. Mafic tuff units are altered to distinctive green, banded chlorite-garnet units with 5-15% disseminated pyrite and trace chalcopyrite and sphalerite.

Retrograde hydration of the garnet-diopside skarn also increases with depth. In the retrograde zones the brown-red, brown and green garnet stages are hydrated to a cream-colored mass of very fine-grained amphibole, chlorite, quartz, and clays or dark grayish-green masses of felted chlorite, locally preserving the shapes of dodecahedral garnet crystals. Retrograde is often accompanied by a dramatic increase in magnetite, both as fine-grained masses and as pseudomorphs after bladed specularite and increased amounts of chalcopyrite (Megaw, 2000, Ray et al., 2002)

Mineralization in the skarn occurs as Ag and Au-bearing chalcopyrite and bornite with abundant pyrite, variable sphalerite and rare arsenopyrite and stibnite emplaced along and surrounding structures that cut the skarn (Megaw, 1999). Much of the sulfide replaces skarn silicates. Numerous stages of sulfide mineralization are identified as:

- A. Chalcopyrite deposited in interstices and along garnet grain boundaries.
- B. Early pyrrhotite (often later pseudomorphed to pyrite) with minor chalcopyrite and locally intergrown with sphalerite.
- C. Pyrite or pyrrhotite (pseudomorphed to pyrite) that is brecciated and healed with later sphalerite or replaced by chalcopyrite.
- D. Massive to dispersed, banded and chaotic chalcopyrite along structures and replacing adjoining skarn.
- E. Magnetite with interstitial chalcopyrite and/or sphalerite pyrrhotite or pyrite.
- F. Sphalerite with chalcopyrite cut by later pyrite veinlets.
- F. Massive sphalerite, brecciated and healed by chalcopyrite and sphalerite.

- G. Mineralized skarn, brecciated and healed with epithermal style chalcedonic quartz.
- H. Calcite veins filled with Au sulfides/sulfosalts cutting skarn.

The skarn silicates tend to end abruptly and massive sphaleritechalcopyrite-pyrite-pyrrhotite mineralization is locally well developed along the contact of skarn with recrystallized limestone (marble front). It is near this front that the very high-grade gold grades associated with the 2002 drilling have been recognized (Oliver, 2002). High-grade gold and sulphide rich replacement bodies may be considered transitional mineralization between the skarn and 4b style of replacement mineralization.

#### **10. EXPLORATION**

The 2003 exploration program was successful in:

i. Implementing a broad based diamond drill program, consisting of 42 NQ diamond drill holes totaling 7,908 m, and using 1 Longyear 38 drill rig under contract from Britton Brothers Drilling of Smithers, British Columbia.

ii. Drill targets included testing of 5 out of 6 mineralized zones. Including, the Number 1, 2, 3 Zones, Canyon Skarn, and Bralorne Takla Mercury Mine area. Significant intersections were obtained in 3 of the 5 areas tested.

iii. The very high grade gold intersections obtained during 2002 (DDH 2-02, 61.2 g/T Au over 1 m, and 24.04 g/T Au over 15.0 m of width in DDH 2-09) were tested in both the up and down dip direction. Excessive borehole deviation occurred while drilling the in Canyon Skarn area, which introduced significant technical challenges to the pursuit of the 2002 high grade mineralized zones. However, even with these obstacles, strong gold-copper intersections were obtained, including DDH 3 – 35 which cut 3.63 g/t Au, 64.09 g/t Ag and 5.20% Cu over 3.7 m (351.0 - 354.7 m).

iv. Drilling in the Number 1 Zone established that the Number 1 fault zone has structural continuity which exceeds 750 m. Higher grade mineralized zones are contained within a 450 long dilated strand of this fault system. It is best mineralized where the Number 1 Fault crosses the hingeline of a regional antiform. This is an important exploration target and one that will likely be repeated elsewhere on the property. v. The depth of oxidation within the Number 3 zone has been shown to be double that which was historically recognized. An oxidized manto has been cored at depths exceeding 100 m subsurface. Most importantly, strong base metal and gold grades have been intersected from these zones, Table. 1. Gold grades exceeding 20 g/t have been cored (DDH 3 - 30, 97.9 - 103.1 m, 5.2 m of 20.51 g/t Au, 96.9 g/t Ag, 2.47% Zn and 6.74 % Pb). This area has received limited drill testing over a strike length, which exceeds 600 m.

iv. The quality of the survey position and collar placement between all boreholes collared between 2003 and 1999 has be upgraded by integrating all GPS survey data previously surveyed in 2001.

v. Eight 2 post claims which overlaid the historic Bralorne – Takla mine were acquired in 2003. Limited drilling, DDH's 3 - 39 to 3 - 42, was completed in this area, without significant success. Further exploration of the numerous geochemical anomalies in this area is ongoing.

vi. Extensive B horizon soil surveys were conducted across the claim group. Highly anomalous base and precious metal soil geochemical values where obtained from the Dream Creek grid. Anomalous areas coincide with the on-strike continuation of the Canyon Skarn Zone and possibly with the on-strike continuation of the Number 3 Extension zone.

#### 11.0 DRILLING

In total, 7,908.0 m of NQ core, distributed among 42 holes, were drilled in the 2003 Lustdust exploration program. Collar locations for these boreholes are illustrated on Figure 6. Core was logged on site by Dr. Jim Oliver (P.Geo). All drill logs and primary assay interval sheets are compiled and presented in digital form on Compact Disc 1 (CD 1). Tabulated assay data for all boreholes is compiled in digital form on Compact Disc 2 (CD 2). Geotechnical data was not collected, per se from the boreholes, but all core was digitally photographed prior to splitting. Digital core photographs are also compiled in CD 1.

A summary of survey information, including collar location and downhole surveys, are presented in digital form in CD 2. Collar locations were initially surveyed using a hand held non-differential mode GPS. Using this basic system, collar locations, in the XY plane, are typically known to an accuracy of +/- 7 m. All drill holes where then re-surveyed by Mr. Bruce Hobson using a GPS system operating in a differential mode. In addition all 2002 drill hole collars, with the exception of DDH 2 – 12, were also surveyed with this system. In this mode accuracy of +/- 3-4 m in the XY plane are common. Accuracy in the vertical plane is weaker, +/- 8-10 m This data was then integrated with previous surveys conducted by Mr. Hobson in 2001 which captured the most of the drill hole

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collars of a 1999 –2001 vintage. Elevations of drill collars may locally appear discordant to topography on the cross sections as drill hole elevations are based solely on GPS elevation datums. Cross sectional topography is based on the data the British Columbia Government 1:20,000 scale trim maps. On these maps, particulary at the 1:1,000 scale, elevations are most likely known to +/- 10 m accuracy.

Downhole surveys were conducted using a "Sperry Sun" or single shot style system. In longer drillholes, downhole surveys were conducted immediately below the casing, and for 150 to 200 m's down the borehole to its termination point. In shorter drillholes, surveys where conducted at the terminal point, and or midpoint, of the drillhole and casings where not surveyed. Downhole survey information was integrated in the construction of the 2003 boreholes. However, all holes drilled prior to the 2002 drilling season lack downhole survey information. On all technical drawings, the position of the trace of these pre-2002 drillholes is considered idealized.

Figures 7 through 28 are a series of geological sections based on the recently developed database and include all drill results from 1991 to 2003. Page size sections are based exclusively on detailed 1:1000 scale sections, compiled in the attached map roll, and also presented in digital format within the compact discs which accompany this report. But on page size drawings the scale is variable and is referred to as NTS (Not To Scale). On these drawings, the 100 m elevation and surface grid coordinates, and a 100 scale bar, provide the drawing reference scale.

The sections are interpretative in nature. Because of the distance between pierce points, the form of the mineralized zone, and the fact that only the 2002 and 2003 drillholes have downhole survey information, the relationship of the mineralized zone to the borhehole axis may have more than one interpretation. For this reason, intersection lengths are best described as "drill indicated widths". The intervals are clearly defined and the reader may choose to draw his own conclusions regarding the width and down dip extent of these intervals.

Discussion of the significant features of these sections begins with the drilling conducted within the Number 1 Zone, Number 2 Zone, Number 3 Zone, Canyon Skarn and Bralorne-Takla Mercury Mine.

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#### 11.1 2003 Summary Drill Hole Descriptions: Number 1 Zone Drilling

In total, 24 boreholes targeted mineralization within the Number 1 Mineralized Zone. Mineralization in this area has a distinct, and strong, structural control. All mineralized zones are associated with dilatent points proximal to a north-south striking, subvertically dipping fault. Strongest mineralization developments where a regional antiformal closure cuts this fault and where rocks of strong competency contrast are juxtaposed against it.

Discussion of the results of drilling in this area will be considered by examining cross-sections from the south of the mineralized zone and continuing to the extreme northern limits of this zone.

## DDH 3 – 12 Dip - 45°, Azi: 274°, E 347970 N 6160275 T.D. 111.9 m DDH 3 – 13 Dip – 67.75°, Azi: 274°, E 347970 N 6160275 T.D. 114.6

Section: 6160290 N Figure 7 and 7a.

This section is located approximately 70 m's south of the former Takla mine adits. Boreholes 3 - 12 and 3 - 13 intersect the Number 1 Fault zone at its most southerly known location. Several key features are noted on this section:

1. The boreholes are terminated in a thick section of incompetent argillites, argillaceous phyllites and lesser cherty argillites. These rocks form the core of a regional north-northwest striking antiform. Limestone units outcrop and are cored along the flanks of this unit.

2. Feldspar porphyritic dyke rocks are noted on the section as linear, east dipping intrusions.

3. No significant assay intervals are cored by these boreholes, but elevated base metal contents, primarily zinc are noted within the host structure, e.g. 0.43% Zn and 1.5 g/t Ag over 0.6 m (88.9 - 89.5 m) in DDH 3 - 13. -----


	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden	SECONDARY LITHOLOGIES . PRODUCTS
	SUPERCRUSTAL ROCKS	OF ROCK ALTERATION
	HF Biotite Hornfels	Sk Skarn
	L Limestone	rSk Retrograde Skarn
	Lp PI Limy Phyllite	MZ Mineralized Zone /
	Ap Argillaceous Phyllites	S Massive Sulphide / V Vein
	Lcs Calcite Knot Limestone	SYMBOLS and MODIFIERS
	SP Siliceous Phyllite	
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	× Brecciation
	CA Cherty Argillite	5.9 B500 3.6 gold (g/t) copper (ppm)/ m's as noted on section
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
	MD Monzodiorites	
	D Diorite	
(Fig. )	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
	Md Mafic Dykes	
	Um Ultramafic Rocks	Diver Geoscience International Ltd.
		ALPHA GOLD CORP.
		Generalized Cross Sectional
		Legend
		Date 10/31/D3 Scale NTS -

The absence of a significant gold or silver mineralized zone likely reflects the abundance of fine grained, incompetent, clastic sediments, which form the immediate footwall to this mineralized zone.

# DDH 3 – 10, Dip - 45°, Azi 274° E 347939 N 6160351, T.D. 86.9 m DDH 3 – 11, Dip - 67.5°, Azi 274° E 347939 N 6160351, T.D. 105.5 m DDH 3 – 14, Dip - 44°, Azi 271° E 348000 N 6160345, T.D. 194.5 m

# Section: 6160350 North. Figure 8 and 8a.

All drillholes on this section intersect the mineralized Number 1 Fault. Two of the drillholes, DDH 3 – 10 and 3 – 11 intersect significant mineralized zones, and the third DDH 3 – 13 intersects a lower grade mineralized interval. DDH 3 – 10 intersects 1.7 m (40.3 - 42.0 m) of 0.83 g/t Au and 2.3 g/t Ag. DDH 3 – 11 intersects 7.4 m (74.3 – 81.7 m) of 4.77 g/t Au, 529 g/t Ag, 0.78% Zn and 0.19% Pb.

The deepest drillhole on this section DDH 3 - 14 intersects 1.2 m (131.5 - 132.7 m) of 1.03 g/t Ag and 4.7 g/t Ag. This intersection is approximately 120 m vertically below surface.

Two significant relationships are identified on this section which likely relate to the development of higher grade mineralized zones.

1. Mineralization and the tenor of mineralization is enhanced at the development of a structural roll in the Number One Fault. This roll develops when the fault trace changes its dip from approximately a 75° east dip to an 85° west dip. Normal faults, dilate, when the fault strand steepens, which appears to be the case in the instance. Enhanced mineralization will be contained within these dilatent intervals.

2. The Number 1 Zone fault closely tracks the position of (i.) a subvertical feldspar porphyritic dyke and (ii.) the contact between incompetent argillites and argillaceous phyllites with the more competant cherts and limestones which form the hangingwall to this fault.



	LEGEND						
	SURFICIAL DEPOSITS:						
	Ovbn Overburden		SEC		RYLITHOLO		DUCTS
	SUPERCRUSTAL ROCKS		OF F	ROCK	ALTERATIO	N	00013
	HF Biotite Hornfels		Sk S	karn			
	L Limestone		rSk	Retro	ograde Skarn		
	Lp PI Limy Phyllite		MZ N	linera	lized Zone /		
Per dis	Ap Argillaceous Phyllites		SA	Massi /ein	ve Sulphide /		
	Lcs Calcite Knot Limestone		SYM	BOLS	and MODIE	FRS	
	SP Siliceous Phyllite		0.111	0020		LINO	
	C Chert		Folia Com	tion (	S1) Ional Laver		
	A Argillite	21	Fault				
	Mt Mafic Tuffs		× ¥	Breco Vein	ciation		
	CA Cherty Argillite	5.9	8500 3.6	gold as no	(g/t) copper ( ted on sectio	ppm)/ m's n	
	INTRUSIVE ROCKS			Au(g/ Hg(pj	t)/ Ag(ppm) / om) / As (ppm	m's 1) / m's	
	M Monzonite						
	QM Quartz Monzonite						
	MD Monzodiorites						
	D Diorite						
	Fd Felsic Dykes						
	Fpd Feldspar Porphyry Dyke						
	Md Mafic Dykes						
No. of	Um Ultramafic Rocks				Diver G	eoscience Int	ernational Ltd.
		FESSIO			ALPH	IA GOL	D CORP.
		A. Ulin	Et 1		Lu	st Dust P	roject
		OL OLIVE	OLIVER U-03.		Gener	alized Cross Leaend	Sectional
		SCIEN	and a		Date 10/31/03	Scale NTS	

DDH 3 – 08 Dip – 50°, Azi: 270°, E 347952, N 6160394, T.D. 96.6 m DDH 3 – 09 Dip - 67.75°, Azi: 270°, E 347952, N 6160394, T.D. 154.5 m DDH 3 – 15 Dip - 56°, Azi: 272°, E 348004, N 6160390, T.D. 227.7 m

# Section 6160400 N

#### Figure 9 & 9a.

Significant intersections are again obtained from the Number 1 Zone on this section. The section also demonstrates the strong "V ing" relationships which define the axial surface of a regional antiform, the trace of which is located 70 m's west of the collars of DDH's 3 - 08 and 3 - 09. Mineralization closely tracks a linear, subvertical dipping, north-south striking feldspar porphyritic dyke rock, which itself is locally offset along the fault trace.

Significant intersections include in DDH 3 – 08, 5.5 m (73.8 – 79.3 m) of 1.17 g/t Au, 458.1 g/t Ag, 0.72 % Pb and 0.73% Zn and 2.0 m (84.0 – 86.0 m) of 2.66 g/t Au, 814.8 g/t Ag, 0.68% Zn and 0.99 % Pb. In DDH 3 – 09, 5 m (135.0 – 140.0 m) of 3.27 g/t Au, 898.6 g/t Ag, 5.7 % Zn and 1.11 % Pb.



Plate 1. High sulphide replacement vein DDH 3 – 08 at 72.7 m. The white gangue mineral is calcite which exhibits moderate to weak banding. The intersection carried 1.2 g/t Au, and 458 g/t Ag over 5.5 m (73.8 – 79.3 m).



LEGEND				
SURFICIAL DEPOSITS: Ovbn Overburden SUPERCRUSTAL ROCKS	SECONE OF ROC	ARY LITHOLO	DGIES - PRO	DUCTS
HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite	Sk Skarr rSk Ret MZ Mine S Mass V Vein SYMBOL	rograde Skarr ralized Zone / sive Sulphide / S and MODIFI	ERS	
C Chert A Argillite Mt Mafic Tuffs CA Cherty Argillite INTRUSIVE ROCKS	Foliation Composi Fault x Bree Y Vein <u>5.9 8500</u> gold as n Au(g	(S1) itional Layer cciation (g/t) copper ( oted on section g/t)/ Ag(ppm) /	ppm)/ m's m m's	
M Monzonite QM Quartz Monzonite MD Monzodiorites D Diorite Fd Felsic Dykes	Hg(	opm) / As (ppn	n) / m's	
Fpd Feldspar Porphyry Dyke Md Mafic Dykes Um Ultramafic Rocks	J. Ulin B. Ulin O3-11-03.	Oliver G ALPH Lu Gener	eoscience Int IA GOL st Dust P alized Cross Legend	ernational Ltd. DCORP. roject Sectional
	N-SCIEN /	Date 10/31/03	Scale NTS	

Mineralization within DDH 3-09 is in the form of a massive sulphide replacement which develops at the juxtaposition of a thin limestone lens with the Number 1 Zone Fault and an adjacent feldspar porphyritic dyke body, Plate 1.

Deepest intersection on this section, DDH 3 - 15 intersects a weakly mineralized structural zone, which contains a maximum of 9.2 g/t Ag over 1.2 m (181.6 - 182.8). This intersection is important as it demonstrates excellent continuity of the structural zone which hosts the Number 1 Zone at sub-surface depths, exceeding 150 m.

DDH 3 – 05, Dip - 45°, 270°, E 347935, N 6160465, T. D. 148.7 m DDH 3 – 06, Dip - 65°, 270°, E 347935. N 6160465, T.D. 121.9 m DDH 3 – 07, Dip - 78.5°, 270°, E 347935, N 6160465, T.D. 159.7 m

# Section 6160465 N Figure 10 & 10a.

The drill holes on this section cut multiple strands of the Number 1 Fault. In all drill sections to the south of this section, the fault may generally be represented as a single fault strand. The fault on this section has imbricated into several failure surfaces. In addition, the style and form of the enclosing feldspar porphyritic dykes has also changed. The intrusions on this section are much more irregular in form and frequently strongly discordant to the enclosing contacts. Locally very coarse-grained aggregates of cinnabar are identified in drill core, Plate 2. It may be argued that the presence of coarse cinnabar proximal to the mineralized zone might suggest that an epithermal environment. This would suggest that only the top of the system has been pierced by these drillholes. Superb stockwork veinlets are also hosted by shattered feldspar porphyritic intrusions (Plate 3).

Several mineralized intervals are cored in each drillhole. Higher grade intersections in DDH 3 – 05 include 2.1 m (68.5 - 60.6 m) of 0.65 g/t Au, 179.5 g/t Ag, 1.33% Zn and 0.62% Pb. In DDH 3 – 06, 1.3 m (77.4 - 77.9 m) of 4.46 g/t Au, 1565 g/t Ag, .1.31% Zn and 1.19 % Pb are intersected.

The deepest intersection on this section, DDH 3 - 07, fails to cut a significant mineralized zone along the down-dip trace of the Number 1 Zone Fault. It is noteworthy, that a broad low-grade intersection obtained very high in borehole. Between 50.9 and 57.0 m (6.1 m) a mineralized zone containing 0.47 g/t Au is cut. This zone is hosted within a argillites that have been strongly sheared and cut by a major fault. This structure appears to be cut, or plugged, up-section by a felsic dyke which is cored in DDH 3 - 06.



Plate 2. Coarse cinnabar aggregates cored in DDH 3 – 06. Significant gold was associated with this interval. Between 77.4 and 78.7 m, 4.46 g/t Au, 1565 g/t Ag, 1.31% Zn and 1.19% Pb was cut. This coarse vein and replacement style of mineralization is in marked contrast to the stockwork style of mineralization cored in DDH 3 – 05 and displayed on Plate 3.



**Plate 3. Stockwork stibnite-silver-gold mineralization DDH 3 – 05.** Mm scale stibnite-silverlead zinc veinlets and stockworks cut a pale grey-green feldspar porphyritic dyke. The sample is very characteristic of the style and form of mineralization contained within feldspar porphyritic dykes when adjacent to major faults. This interval carried 0.7 g/t Au, 180 g/t Ag, 0.6% Pb and 1.3% Zn.



	LEGEND					
	SURFICIAL DEPOSITS: Ovbn Overburden SUPERCRUSTAL ROCKS HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite		SECONE OF ROC Sk Skarr rSk Ret MZ Mine S Mass V Vein SYMBOL Foliation	OARY LITHOLO K ALTERATIO rograde Skarn ralized Zone / sive Sulphide / S and MODIFI (S1)	OGIES - PRON	DUCTS
	A Argillite	15	Compos Fault	itional Layer		
1.825	Mt Mafic Tuffs		x Bree	ciation		
	CA Cherty Argillite INTRUSIVE ROCKS	<u>5.9</u> 3.4	✓ Veir gold as n Au(( Hg()	l I (g/t) copper ( oted on sectio g/t)/ Ag(ppm) / opm) / As (ppn	ppm)/m's n m's ı)/m's	
	M Monzonite					
報言は	QM Quartz Monzonite					
in the second	MD Monzodiorites					
	D Diorite					
	Fd Felsic Dykes					
	Fpd Feldspar Porphyry Dyke					
	Md Mafic Dykes					
12-03-	Um Ultramafic Rocks			( @ Oliver G	eoscience Int	ernational Ltd.
		A-Dal L OLIVI OS -11-1 OSCIENT	- - 	ALPH Lu Gener	IA GOL st Dust P: alized Cross Legend Scale NTS	D CORP. roject Sectional
					and the second second	

# DDH 3 – 01, Dip - 45, Azi 270, E 348033, N 6160528, T.D. 224.9 m DDH 3 – 04, Dip - 55, Azi 280, E 347949, N 6160527, T.D. 178.0 m

#### Section 6160535 North. Figure 11 & 11a.

The two drillholes collared during 2003 on this section target the down-dip mineralized zones cored by two drillholes collared in 1998. The planar nature of the fault zone is well constrained by the position of the surface outcropping mineralized zone, and by mineralized intersections obtained in 3 or 4 drillholes.

On this section the Number 1 Fault Zone has a very consistent 75° east dip. Mineralization is best developed at the confluence of the fault zone with felsic dyke rocks and competent limestones.

On this section DDH 3 – 04 intersected 1.6 m (100.7 to 102.3 m) of 1.76 g/t Au, 705.7 g/t Ag, 0.22% Zn and 1.7% Pb. The deepest pierce point of the Number 1 Fault,` DDH 3-01, failed to intersect a significant mineralized interval.

# DDH 3 – 02, Dip - 45°, Azi 270°, E 347945, N 6160598, T.D. 151.2 DDH 3 – 03, Dip - 62.5°, Azi 270°, E 347945, N 6160598, T.D. 176.2

#### Section: 6160600N Figure 12& 12a.

The northern extension of the Number 1 Mineralized Zone is tracked on these drillholes. The surface expression of this vein system is poorly developed however, 100 m's below surface, DDH 3 - 02 cuts 1.1 m (94.5 - 95.6 m) of 1.53 g/t Au, 144.6 g/t Ag, 1.31% Zn and 0.71% Pb. The intersection appears as a semi-massive sulphide vein enclosed within a sheared limestone.

The deeper intersection of this fault trace along this drillhole, DDH 3-03 is geochemically anomalous, with zinc to 0.1% (144.0 to 145.4 m) is related to this structural zone.

Felsic dykes on this section have again adopted a strongly planar form, but dip steeply west, not steeply east, as the main fault zone does.



LEGEND	
SURFICIAL DEPOSITS:	
Ovbn Overburden SUPERCRUSTAL ROCKS	SECONDARY LITHOLOGIES - PRODUCTS OF ROCK ALTERATION
HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite C Chert A Argillite Mt Mafic Tuffs	<ul> <li>Sk Skarn</li> <li>rSk Retrograde Skarn</li> <li>MZ Mineralized Zone / S Massive Sulphide / V Vein</li> <li>SYMBOLS and MODIFIERS</li> <li>Foliation (S1)</li> <li>Compositional Layer Fault</li> <li>x Brecciation</li> </ul>
CA Cherty Argillite	Vein 5.9 8500 3.6 3.6 3.6 3.6 3.6 as noted on section Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
M Monzonite	
QM Quartz Monzonite	
MD Monzodiorites	
D Diorite	
Fd Felsic Dykes	
Fpd Feldspar Porphyry Dyke	
Md Mafic Dykes	
Um Ultramafic Rocks	Content of the second s
	Generalized Cross Sectional Legend



	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden	
	SUPERCRUSTAL ROCKS	OF ROCK ALTERATION
	HF Biotite Hornfels	Sk Skorn
	L Limestone	SK Skarn
	Lp PI Limy Phyllite	MZ Mineralized Zone /
	Ap Argillaceous Phyllites	S Massive Sulphide /
No.	Lcs Calcite Knot Limestone	SYMBOLS and MODIFIERS
	SP Siliceous Phyllite	
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	x Brecciation
	CA Cherty Argillite	5.9 B500 gold (g/t) copper (ppm)/ m's as noted on section
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
	MD Monzodiorites	
	D Diorite	
	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
	Md Mafic Dykes	
	Um Ultramafic Rocks	Diver Geoscience International Ltd.
		ALPHA GOLD CORP.
		g Our Lust Dust Project
		03-11-03. Generalized Cross Sectional
		Legend
		Date 10/31/03 Scale NTS -

DDH 3 – 23, Dip - 45°, Azi 270°, E 347935, N 6160650 N,T.D. 108.5 m DDH 3 – 24, Dip - 58°, Azi 270°, E 347935, N 6160650 N, T.D. 166.1 m

# Section 6160650 N Figure 13 & 13a.

These two drillholes were intended to "plug the gap" between a series of intersections obtained to the north of this section with those previously drilled in the Takla Silver mine area.

Both drillholes cut a thick sequence of felsic intrusions, which compositionally range from plagioclase to hornblende phyric dykes. Mineralized intersections are noted in both drillholes. DDH 3 - 23 intersects 0.74 g/t Au, 38 g/t Ag, 1.14% Zn and .2% Pb over a 1.0 m width (93.2 to 94.2 m). A similar, but narrower intersection is cut in DDH 3 - 24, 0.84 g/t Au, 38.9 g/t Ag, 0.19% Zn and 0.27% Pb over 0.5 m (158.1 – 158.6 m). This intersection is located approximately 150 m below surface.

# DDH 3 – 21, Dip - 45°, Azi 270°, E 347930, N 6160725 N,T.D. 139.0 m DDH 3 – 22, Dip - 45°, Azi 270°, E 347930, N 6160725 N, T.D. 169.5 m

#### Section 6160705 N Figure 14 & 14a.

Both DDH 's on this section look for mineralized intersections well below those obtained by Teck in their 1998 drilling. Drilling on this section confirmed the persistence of the Number 1 Zone, beneath earlier Teck drillholes. The intersections obtained at depth were narrower in their widths.

DDH 3 –21 cut 0.6 m (106.0 – 106.6 m) of 0.85 g/t Au, 24.5 g/t Ag and 0.25% Zn within a mineralized zone which lies less than 5 m to the west of the feldspar porphyritic dyke contact which tracks this zone.

Although the structure was intersected in DDH 3-22, no significant mineralization was associated with the Number 1 Zone Fault in this intersection.

The form of the main felsic dyke mass is again non-planar and locally strongly discordant to the main mineralized zone.



	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden	SECONDARY LITUOLOGIES - PRODUCTO
	SUPERCRUSTAL ROCKS	OF ROCK ALTERATION
	HF Biotite Hornfels	Sk Skorn
	L Limestone	Sk Batragrada Skarn
	Lp PI Limy Phyllite	MZ Minorelized Zone /
	Ap Argillaceous Phyllites	S Massive Sulphide /
	Lcs Calcite Knot Limestone	SYMBOLS and MODIFIERS
	SP Siliceous Phyllite	STMBOLS and MODIFIERS
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	x Brecciation
	CA Cherty Argillite	5.9 8500 3.6 gold (g/t) copper (ppm)/ m's
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
IN SECTION OF	MD Monzodiorites	
	D Diorite	
	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
	Md Mafic Dykes	
lares.	Um Ultramafic Rocks	Oliver Geoscience International Ltd.
		ALPHA GOLD CORP.
		Lust Dust Project
		Generalized Cross Sectional Leaend
		Date 10/31/03 Scale NTS



LEGEND		
SURFICIAL DEPOSITS:		
Ovbn Overburden SUPERCRUSTAL ROCKS	SECONI OF ROC	DARY LITHOLOGIES - PRODUCTS K ALTERATION
HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite C Chert	Sk Skarn rSk Ref MZ Mine S Mass V Vein SYMBOI	n trograde Skarn eralized Zone / sive Sulphide / _S and MODIFIERS
A Argillite Mt Mafic Tuffs CA Cherty Argillite INTRUSIVE ROCKS	X Bre X Bre X Vein <u>5.9 8500</u> gold 3.6 as r Au(	itional Layer cciation n d (g/t) copper (ppm)/ m's noted on section g/t)/ Ag(ppm) / m's
M Monzonite QM Quartz Monzonite MD Monzodiorites D Diorite Fd Felsic Dykes Fpd Feldspar Porphyry Dyke	пу(	
Md Mafic Dykes Um Ultramafic Rocks	DECLIVER OS-11-03.	Oliver Geoscience International Ltd. ALPHA GOLD CORP. Lust Dust Project Generalized Cross Sectional Legend
		Date 10/31/03 Scale NTS -

DDH 3 – 19, Dip - 45°, Azi 270°, E 347930, N 6160795, T.D. 157.3 m DDH 3 – 20, Dip - 57.5°, Azi 270°, E 347930, N 6160795, T.D. 166.7 m DDH 3 – 32, Dip - 45°, Azi 090°, E 347620, N 6160783, T.D. 142.0 m

# Section 6160790 North Figure 15 & 15a.

The section displays the spatial relationship between the southern terminus of the north-northwest striking Number 3 Manto and the north striking Number 1 Mineralized Zone.

All intersections on the Number 1 Zone have significant intersections. DDH 3 –19 cuts 3.5 m (124.5 – 128.0 m) of 1.7 g/t Au, 83.7 g/t Ag, 2.46% Zn and 2.42 % Pb. DDH 3 – 20 cuts 1.0 m of 3.78 g/t Au, 203 g/t Ag, 2.84% Zn and 4.42% Pb. This intersection is located more 176 m's subsurface.

A characteristic "roll" within the Number 1 Zone Fault structure is likely associated with the development of dilatent mineralized zones within this fault and the trace of the regional antiform is also noted on this section.

DDH 3 – 32 is cored directly beneath a high grade trench, cut by Teck Corporation in 1997 on the southern extension of the Number 3 mineralized zone. This drillhole fails to intersect a significant mineralized interval and it is likely that the oxide mineralization exposed in the trench, less than 15 m above this borehole, is following, tortuous, non-planar fracture sets which are not cored by DDH 3 - 32. Further drilling on the extreme southern extension of the Number 3 Mineralized Zone was not undertaken.

DDH 3 – 18, Dip - 45°, Azi 270°, E 347930, N 6160945, T.D. 178.6 m.

# Section 6160945 N Figure 16 & 16a.

The drillhole intersects the Number 1 Fault at a distance of 180 m's subsurface. The structural zone is exposed in a re-claimed trench on surface. The fault zone has changed its dip direction to steep, 70° west, dips. This borehole cut 2.2 m's of 0.44 g/t Au, 8.96 g/t Ag, 0.74% Zn and 0.38% Pb. The intersection occurs approximately 180 m's sub-surface. No obvious dyke association is noted within this drillhole, although shattered and broken dyke fragments are noted within the structural zone.



	LEGEND		
	SURFICIAL DEPOSITS:		
	Ovbn Overburden	SECO	NDARY LITHOLOGIES - PRODUCTS
	SUPERCRUSTAL ROCKS	OF RO	OCK ALTERATION
	HF Biotite Hornfels	Sk Sk	arn
[Comp	L Limestone	rSk R	etrograde Skarn
	Lp PI Limy Phyllite	MZ Mi	neralized Zone /
	Ap Argillaceous Phyllites	S Ma V Ve	insive Sulphide /
	Lcs Calcite Knot Limestone	SYMB	
(6.5)	SP Siliceous Phyllite		
	C Chert	Foliatio	on (S1) ositional Laver
	A Argillite	Fault	
	Mt Mafic Tuffs	× Bi	recciation
	CA Cherty Argillite	5.9 8500 gc 3.6 as	old (g/t) copper (ppm)/ m's s noted on section
	INTRUSIVE ROCKS	A	u(g/t)/ Ag(ppm) / m's g(ppm) / As (ppm) / m's
	M Monzonite		
	QM Quartz Monzonite		
	MD Monzodiorites		
	D Diorite		
	Fd Felsic Dykes		
	Fpd Feldspar Porphyry Dyke		
	Md Mafic Dykes		
	Um Ultramafic Rocks		Diver Geoscience International Ltd.
		ANG	ALPHA GOLD CORP.
		L. OLIVER	Lust Dust Project
		Scient Street	Generalized Cross Sectional Legend
			Date 10/31/03 Scale NTS -



	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden	SECONDARY LITUOLOGIES, PRODUCTO
	SUPERCRUSTAL ROCKS	OF ROCK ALTERATION
	HF Biotite Hornfels	
	L Limestone	Sk Skarn
	Lp PI Limy Phyllite	rSk Retrograde Skarn
	Ap Argillaceous Phyllites	MZ Mineralized Zone / S Massive Sulphide / V Vein
	Lcs Calcite Knot Limestone	SYMBOLS and MODIFIERS
	SP Siliceous Phyllite	
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	x Brecciation
1907	CA Cherty Argillite	5.9 8500 gold (g/t) copper (ppm)/ m's
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
	MD Monzodiorites	
	D Diorite	
	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
	Md Mafic Dykes	
	Um Ultramafic Rocks	Bud Oliver Geoscience International Ltd.
		ALPHA GOLD CORP.
		Lust Dust Project
		Generalized Cross Sectional Legend
		Date 10/31/03 Scale NTS -

#### DDH 3 – 17, Dip - 45°, Azi 270°, E. 347840, N 6161140, T.D. 154.3 m.

# Section 6161050 N Figure 17 & 17a.

DDH 3 – 17 is the most northerly intersection of the Number 1 Mineralized Zone. The borehole pierces a jet black gouge zone between 104.2 and 104.7 m contains 0.54 g/t Au, 7.1 g/t Ag, 2.73% Zn and 0.58% Pb. Mineralization develops at the contact between a steeply west dipping feldspar porphyritic dyke and a massive limestone unit.

The Number 1 Fault zone retains its steep west dip, dipping 75° west.

#### DDH 3 - 16, Dip - 45°, Azi 270°, E 347912, N 6161045, T.D. 169.5 m.

# Section 6161125 N Figure 18 & 18a.

DDH 3 - 16, was designed to test a significant but more than 20 year old geochemical anomaly identified by regional geochemical surveys conducted by Noranda in the early 1980's.

The drillhole was directed towards these anomalies and not the Number 1 Mineralized Zone which lies due east of this drill collar. The borehole cuts two mineralized structural zones. The surface projection of these zones lies at least 75 m 's west of the drill collar and approximately 90 m's west of the northern extension of the Number 1 mineralized zone. The intersections are narrow, 0.55 and 0.6 m. The best of these, is a 0. 6 m interval which is noted between 121.1 and 121.7 m which contained 0.68 g/t Au, 11.1 g/t Ag, 1.48 % Zn and 0.15% Pb.

These mineralized intersections may be the weak on strike continuation of the mineralization exposed in the Number 2 Zone trenches located nearly 350 m's to the south.



	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden	SECONDARY LITHOLOGIES PRODUCTO
	SUPERCRUSTAL ROCKS	OF ROCK ALTERATION
(Annual)	HF Biotite Hornfels	Sk Skorn
	L Limestone	Sk Skarn
	Lp PI Limy Phyllite	TSK Retrograde Skarn
127-01	Ap Argillaceous Phyllites	S Massive Sulphide /
10.33	Lcs Calcite Knot Limestone	
	SP Siliceous Phyllite	STMBOLS and MODIFIERS
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	x Brecciation
100	CA Cherty Argillite	5.9 8500 3.6 gold (g/t) copper (ppm)/ m's
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
a start	MD Monzodiorites	
Sugar .	D Diorite	
	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
	Md Mafic Dykes	
	Um Ultramafic Rocks	Diver Geoscience International Ltd.
		ALPHA GOLD CORP.
		UL OLIVER 03-11-03. Lust Dust Project
		Generalized Cross Sectional Legend
		Date 10/31/03 Scale NTS -



	LEGEND		
	SURFICIAL DEPOSITS:		
	Ovbn Overburden	SE	CONDARY LITHOLOGIES - PRODUCTS
	SUPERCRUSTAL ROCKS	OF	ROCK ALTERATION
	HF Biotite Hornfels	Sk	Skarp
	L Limestone	- Sk	Potrogrado Skorn
	Lp PI Limy Phyllite	TSK	Retrograde Skarn
And a second	Ap Argillaceous Phyllites	S	Mineralized Zone / Massive Sulphide /
	Lcs Calcite Knot Limestone	V	Vein
	SP Siliceous Phyllite	SYN	BOLS and MODIFIERS
	C Chert	Foli	ation (S1)
	A Argillite	Fau	npositional Layer It
	Mt Mafic Tuffs	x	Brecciation
	CA Cherty Argillite	5.9 8500 3.6	gold (g/t) copper (ppm)/ m's
	INTRUSIVE ROCKS		Au(g/t)/ Ag(ppm) / m's
-			ng(ppm) / As (ppm) / m s
	M Monzonite		
5 12	QM Quartz Monzonite		
	MD Monzodiorites		
term a	D Diorite		
	Fd Felsic Dykes		
132-14	Fpd Feldspar Porphyry Dyke		
	Md Mafic Dykes		
	Um Ultramafic Rocks		Diver Geoscience International Ltd.
		1 1 2	ALPHA GOLD CORP.
		Gelthin	Lust Dust Project
		03-11-03-	Generalized Cross Sectional Legend
		SCIEN	Date 10/31/03 Scale NTS -

11.2 2003 Summary Drill Hole Descriptions: Number 2 Zone Drilling.

DDH 3 – 25, Dip - 50°, Azi 090°, E 347702, N 6160759, T.D. 95.4 m DDH 3 – 26, Dip - 66°, Azi 090°, E 347702, N 6160759, T.D. 99.4 m

Section: 6160760 N Figure 19 & 19a.

Two diamond drillholes tested the mineralized zones, which are well exposed in the trenches of the Number 2 Zone. These trenches were re-cut and the contact relationships re-examined. The data in these trenches clearly indicated that the rock mass and the strongly oxidized and high grade mineralized zones which are exposed in these trenches had a 37° west dip (Plate 4).



**Plate 4. Number 2 Oxide Zone.** The photograph is looking west and an obvious west dipping contact between brick-red oxides and the overlying calcareous mafic tuffs is clearly noted. The contact strikes 024° north and dips 37° west. Sampling by Teck in 1996 indicated that this zone carried 2.46 g/t Au, 95.7 g/t Ag, 3.41% Zn and 3.38% Pb over 2.0 m. The trace of DDH 3 – 25 passes less than 25 m's down dip of this impressive surface oxide zone without obtaining a significant intersection.

DDH 3 – 25 was collared approximately 45 m west of contact and drilled due east at a 45° angle directly below, less than 25 m's down-dip and less than 30 m's vertically beneath this trench. However, no significant oxide zone was intersected. A second hole drilled at a steeper dip of the same collar, DDH 3 – 26, also failed to obtain a significant intersection.

The section clearly indicates the nature of the structural controls on this zone. Mineralization in the Number 2 Zone is most likely forming a tight saddle reef structure which thickens in the core of a regional antiform. The axial trace of this antiform passes directly through the Number 2 Zone trenches. Under this structural scenario, the down dip extent of this zone is limited but a blind saddle reef structure may exist down the approximate 20° north-northwest plunge of this regional structure.




## 11.3. 2003 Summary Drillhole Descriptions: Number 3 Zone Drilling.

Five drillholes where directed towards testing the subsurface nature of mineralization associated with the impressive oxide zones which form the Number 3 Zone Oxidized Mantos. These boreholes where intended to be used to develop and define the geometry of these mineralized zones and to place previous drilling in this area within a more current context. Strong results were obtained from 4 out of the 5 drillholes.

DDH 3 – 27, Dip - 45°, Azi 065°, E 347450, N 6161022, T.D. 128.0 m DDH 3 – 28, Dip - 66°, Azi 065°, E 347450, N 6161022, T.D. 142.1 m DDH 3 – 29, Dip - 77°, Azi 065°, E 347450, N 6161022, T.D. 200.3 m

Section 03 – 27, 03 – 28 03 – 29. Figure 20 & 20a.

Drilling on this cross section was designed to test down-dip mineralized zones below the depths of drilling conducted early in the 1990's. Key points on this cross section are as follows:

i. The Number 3 oxide zone has been clearly shown to extend down dip for greater than 120 m's and exists as a predominantly oxide zone at depths of greater than 110 m's subsurface.

ii. The oxide zone intersected in DDH 3 – 29 was intersected at two intervals. The thickest of these zones 115.2 – 118.0 had an 11% recovery.

iii. DDH 99-01 intersects oxide rich fracture zones at three localities, in the approximate downdip position of the mineralized zones cored in DDH 's 3 - 29, 3 - 28 and 3 - 27. None of these zone were sampled. In fact, no samples were taken from DDH 99-01.

iv. The Number 3 Zone Mantos contains both strong gold and lead-zinc mineralization. All base metals are in an oxide form and the contacts between non-mineralized carbonates and the mantos are typically very abrupt., Plate 5. The highest gold and silver grades on this section are noted in DDH 3 – 28, 3.2 m of 6.66 g/t Au, 12.64 g/t Ag as well as 13.71 % Zn between 117.0 and 120.2 m. This intersection lies 80 m down dip of an earlier intersection; DDH 91-02 18.0 m of 5.95 g/t Au and 31.8 g/t Ag (61.6 – 79.6 m).

v. The mantos are forming in a limestone rock package which has a modest, 45° west dip. Structurally this is the shallow west dipping limb of a regional antiform. The axial trace of this antiform lies approximately 200 m's east of the collars of DDH's 3 - 27, 3-28 and 3 - 29.

vi. No significant fault offsets are identified on this section. A minor, east side down extension fault likely cuts the central portions of this section. Apparent offsets of 18 m's, east side down are interpreted.



Plate 5. Number 3 Zone Oxidized Mantos, DDH 3 – 28 @ 117 – 120.2 m. The abrupt onset of the mineralized zone is clearly noted in this interval. Also of significance is the relatively competant nature of both the footwall and hangingwall contacts on this mineralized zone.



#### LEGEND



DDH 3 - 30, Dip - 45°, Azi 065°, E 347465, N 6160969, T.D. 151.5 m DDH 3 - 31, Dip - 66°, Azi 065°, E 347465, N 6160969, T.D. 165.2 m

Section: 03 - 30 03 - 31 Figure 21 & 21a.

DDH's 3 – 30 and 3 –31 are drilled on a cross sectional plane located 45 m's southeast of the collars of DDH 3 – 27, 3 – 28 and 3 – 29. The drillholes once again cut the modest west dipping limb of a regional antiform. Key points on this section are:

i. The oxidized mantos cored in these drillholes are irregular in morphology but frequently carry very substantive gold grades over significant widths.

ii. Strongest gold grades are cored in DDH 3 – 30 which cut 5.2 m (97.9 – 103.1 m) of 20.51 g/t Au, 96.9 g/t Ag, 2.47% Zn and 6.74 % Pb. This intersection lies approximately 50 - 55 m down dip of an earlier intersection DDH 91 – 04 that intersected 21.5 m of 3.25 g/t Au, 23.5 g/t Ag, and 2.26% Zn.

iii. The unusual, and likely non-planar geometry of these mantos can be seen by comparing the results of DDH 3 - 31 with DDH 91 - 05. DDH 91 - 05 was drilled vertically approximately 11 m's off the sectional plane of DDH 3 - 31. DDH 91 - 05 cuts 3.8 m of 0.45 g/t Au, 19.2 g/t Ag and 9.01% Zn. An equivalent or better intersection was not obtained in DDH 3 - 31.





## 11.4 2003 Summary Drill Hole Descriptions: Canyon Skarn Zone.

A minority of the 2003 exploration season focused on the Canyon Skarn. In total, five NQ diamond drillhole, DDH's 3-32 to 3 – 38 where collared in this area. All boreholes where targeted to further define, in both the up and down dip directions, the distribution of high grade copper and gold intersections obtained in the 2002 diamond drill program.

DDH 3 – 34, Dip - 73°, Azi 070°, E 346819, N 6161706, T.D. 435.3 m

Section: 03 - 34 Figure 22 & 22a.

DDH 3 – 34 was designed to cut the down dip intersection of the mineralized zone previously cored in DDH 2 – 07 which had cut 10.2 m of 1.78 g/t Au and 1.4% Cu between 264.4 and 274.6 m. The drillhole was designed to cut this intersection approximately 70 m down the dip plane and approximately 325 m vertically below surface.

Two significant geological features developed which reduced the tenor of mineralization and the down dip continuity of the mineralized zone. These include:

- i. The mineralized skarn stratigraphy has thinned to approximately 2 m, from greater than 40 m in DDH 2 07.
- ii. A significant west dipping fault structure, likely a west side down extension fault has truncated the permissive stratigraphic interval.

The overall stratigraphic package is identical to that encountered up-hole however copper grades never exceed 0.17 % over the mineralized interval at the upper skarn contact (e.g. 0.17% Cu, 0.32 g/t Au, and 1.3 g/t Ag over 1.3 m at 389.2 – 390.5).



	LEGEND	
	SURFICIAL DEPOSITS:	
	Ovbn Overburden SUPERCRUSTAL ROCKS	SECONDARY LITHOLOGIES - PRODUCTS OF ROCK ALTERATION
	HF Biotite Hornfels	Sk Skarn
	L Limestone	rSk Retrograde Skarn
	Lp PI Limy Phyllite	MZ Mineralized Zone /
	Ap Argillaceous Phyllites	V Vein
	SP Siliceous Phyllite	SYMBOLS and MODIFIERS
	C Chert	Foliation (S1)
	A Argillite	Fault
	Mt Mafic Tuffs	× Brecciation
	CA Cherty Argillite	5.9 8500 3.6 gold (g/t) copper (ppm)/ m's as noted on section Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
	M Monzonite	
	QM Quartz Monzonite	
	MD Monzodiorites	
	D Diorite	
	Fd Felsic Dykes	
	Fpd Feldspar Porphyry Dyke	
1.00	Md Mafic Dykes	
	Um Ultramafic Rocks	Diver Geoscience International Ltd.
		ALPHA GOLD CORP. L. OLIVO 03-11-03. Generalized Cross Sectional Legend
		Date 10/31/03 Scale NTS -

## DDH 3 - 33, Dip - 52°, Azi, 050°, E 346844 N 6161022, T.D. 377.3 m

## Section H – H. Figure 23 & 23a.

DDH 3 - 33 was designed to intersect the high grade footwall mineralized zone 70 to 100 m above an earlier intersection, DDH 01 - 46, and along strike 70 - 80 m to the southeast of the high grade footwall zone intersections obtained in DDH 2 - 09.

DDH 3 – 33 cored almost 200 m's of calc-silicates. This thick skarn section carried a lower grade mineralized zone at its upper contact and an impressive silver rich mineralized zone at its lower contact. DDH 3 –33 cored 1.0 m (350.6 – 351.6 m) of 0.65 g/t Au, 559.0 g/t Ag, 0.20% Pb and 3.83% Cu at a stratigraphic and structural position which closely coincides with the footwall mineralized zone. The mineralization consists of a chalcopyrite rich replacement and breccia zone without significant calc-silicate assemblages.

The drillhole is highly significant as it leaves the high grade footwall zone open to the south-southeast.



LEGEND	
SURFICIAL DEPOSITS: Ovbn Overburden SUPERCRUSTAL ROCKS HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite C Chert A Argillite Mt Mafic Tuffs	SECONDARY LITHOLOGIES - PRODUCTS OF ROCK ALTERATION Sk Skarn Sk Skarn Sk Retrograde Skarn MZ Mineralized Zone / S Massive Sulphide / V Vein SYMBOLS and MODIFIERS Foliation (S1) Compositional Layer Fault X Brecciation Y Vein
INTRUSIVE ROCKS	as noted on section Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's
M Monzonite QM Quartz Monzonite	
MD Monzodiorites	
Fd Felsic Dykes	
Fpd Feldspar Porphyry Dyke Md Mafic Dykes	
Um Ultramafic Rocks	Oliver Geoscience International Ltd. ALPHA GOLD CORP. Lust Dust Project Generalized Cross Sectional Legend Date 10/31/03 Scale NTS -

DDH 3 - 35, Dip - 67°, Azi 050°, E 346819, N 6161913, T.D. 471.2 m DDH 3 - 36, Dip - 50°, Azi 050°, E 346819, N 6161913, T.D. 422.7 m

Section I – I Figure 24 & 24a.

These two drillholes were designed to straddle the very high grade gold intersection obtained in DDH 2 – 09, which cut 36.7 g/t Au, 182.6 g/t Ag and 2.89% Cu over 9.7 m (419.3 to 429.0 m).

Both of the 2003 drillholes were intended to be placed, on section, approximately 50 m's below and 50 m's above. DDH 3 – 35 cut a strongly mineralized gold copper intersection 110 m's stratigraphically above the preferred target point. This intersection carried 3.63 g/t Au, 64.09 g/t Ag, 0.13% Zn and 5.2% copper over 3.7 m (351.0 - 354.7 m). The down dip interval of the bonanza gold intersection cut in DDH 2 – 09, was also significant, 1.42 g/t Au, 32.9 g/t Ag, and 1.26% Cu over 2.2 m (409.3 to 410.5 m).

The sought after up-dip target, drilled by DDH 3 - 36 carried 0.82 g/t Au, 28.4 g/t Ag and 0.84% Cu over 2.5 m. This intersection is similar to that obtained in DDH 3 - 35 which was approximately 100 m down dip.

DDH 3 – 37, due to its extreme deviation crossed onto the plane of this section and cored 0.43 g/t Au, 21,1 g/t Ag and 0.7% Cu over 4.8 m (420.5 to 426.0 m).

Although the geometry of this mineralized zone is complex, and clearly deformed into several tight isoclines and synclines, the continuity of mineralization along this footwall contacted has been well demonstrated by DDH 's 3 - 35, 3 - 36 and 3 - 37.

DDH 3 – 37, Dip - 51°, Azi 052°, E 346742, N 6161927, T.D. 489.9 m.

Section: J -- J Figure 25 & 25a.

DDH 3 – 37 was designed to intersect the high grade footwall mineralized zone approximately 100 m up-dip from the very high grade intersection obtained in DDH 2 – 02 which cored 1.0 m of 61.27 g/t Au and 0.87% Cu.



LEGEND	
LEGEND SURFICIAL DEPOSITS: Ovbn Overburden SUPERCRUSTAL ROCKS HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites Lcs Calcite Knot Limestone SP Siliceous Phyllite C Chert A Argillite Mt Mafic Tuffs CA Cherty Argillite INTRUSIVE ROCKS M Monzonite QM Quartz Monzonite MD Monzodiorites	SECONDARY LITHOLOGIES - PRODUCTS OF ROCK ALTERATION
Fd Felsic Dykes	
Fpd Feldspar Porphyry Dyke	
Md Mafic Dykes	
Um Ultramafic Rocks	Diver Geoscience International Ltd.
	ALPHA GOLD CORP.
	Lust Dust Project O3-11-03. Generalized Cross Sectional Legend

Date 10/31/03

Scale NTS

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DDH 3 – 37 was initially collared at a dip of -51° and an azimuth of 052°. The drillhole experiences extensive deviation in both its dip direction and its azimuth. At its terminal point of 489.9 m DDH 3 – 37 has a dip of -34.5° and an azimuth of 80.5°. This deviation means that **at its endpoint the drillhole is off-target by approximately 150 m.** Due to borehole deviation the up-dip extent and the probable northern extension of the high grade footwall mineralized zone" remains untested.

The intersection obtained in this drillhole 4.8 m (421.2 - 426.0 m) of 0.43 g/t Au, 21.1 g/t Ag and 0.7% Cu, is significant (Plate 6) as it also lies along the footwall mineralized zone. However due to the amount of borehole deviation this intersection is no longer on the "J-J", sectional plane but has crossed the next sectional plane to the south-southeast, Section I-I.



Plate 6. Chalcopyrite rich calc-silicates, DDH 3 – 37. This mineralized interval occurs near the footwall contact of the main calc-silicate body with the carbonates, cherts and lesser skarn lenses in the structural footwall of the Canyon Skarn.



	LEGEND				
	SURFICIAL DEPOSITS:				
	Ovbn Overburden				
	SUPERCRUSTAL ROCKS	SECONDARY LITHO OF ROCK ALTERAT	ARY LITHOLOGIES - PRODUCTS ALTERATION		
	HF Biotite Hornfels				
	L Limestone	Sk Skarn			
	Lp PI Limy Phyllite	rSk Retrograde Sk	arn		
	Ap Argillaceous Phyllites	MZ Mineralized Zone / S Massive Sulphide /			
	Lcs Calcite Knot Limestone	SYMBOLS and MOD	IFIERS		
	SP Siliceous Phyllite	STINDOLO UNU MOL	n (S1) sitional Layer		
	C Chert	Foliation (S1)			
	A Argillite	Fault			
	Mt Mafic Tuffs	x Brecciation			
1	CA Cherty Argillite	5.9 8500 3.6 gold (g/t) copper (ppm)/ m's			
	INTRUSIVE ROCKS	Au(g/t)/ Ag(ppn Hg(ppm) / As (p	n) / m's opm) / m's		
	M Monzonite				
20	QM Quartz Monzonite				
1	MD Monzodiorites				
E.a.	D Diorite				
	Fd Felsic Dykes				
501	Fpd Feldspar Porphyry Dyke				
	Md Mafic Dykes				
	Um Ultramafic Rocks	Gint Olive	r Geoscience International Ltd.		
		ALI	PHA GOLD CORP.		
		A-Dim	Lust Dust Project		
		03-11-03. Ge	neralized Cross Sectional Legend		
		Date 10/31/	03 Scale NTS -		

## DDH 3 – 38, Dip - 45°, Azi 270°, E 347194, N 6162022. T.D. 343.5 m

## Section 6162040 N Figure 26 & 26a.

Drill hole 3 – 38 was an attempt to cut the deep footwall stratigraphy exposed in road cut 100 m's east of the Canyon Skarn mineralized horizon. The borehole traverses a series of limestone interbeds which are locally cut by silicified and pyritized feldspar porphyritic intrusions. The intrusions cored in the upper portions of the drillhole are geochemically anomalous but are not significantly mineralized.

The strongest intersection in the drillhole occurs at the footwall contact. At this contact, 1.7 m (250.0 - 251.7 m) of 0.38 g/t Au, 10.4 g/t Ag and 0.55% Cu are intersected.

The section clearly displays the well developed form of the regional synformal roll which is spatially related to many of the thicker and higher grade gold-copper intersections on this, and related, sections.



	LEGEND				
	SURFICIAL DEPOSITS:				
	Ovbn Overburden	SECON	DARY LITHOLOGIES PRODUCTO		
	SUPERCRUSTAL ROCKS	OF RO	ALTERATION		
	HF Biotite Hornfels	Sk Sko			
	L Limestone	SK SKA			
	Lp PI Limy Phyllite		trograde Skarn		
	Ap Argillaceous Phyllites	S Mas	ralized Zone / sive Sulphide /		
	Lcs Calcite Knot Limestone	V Vei			
	SP Siliceous Phyllite	STMBO	.S and MODIFIERS		
	C Chert	Foliatio	n (S1) iitional Layer cciation n d (g/t) copper (ppm)/ m's noted on section g/t)/ Ag(ppm) / m's ppm) / As (ppm) / m's		
	A Argillite	Fault			
	Mt Mafic Tuffs	x Bro			
10 BA	CA Cherty Argillite	5.9 8500 3.6 30			
	INTRUSIVE ROCKS	Au			
	M Monzonite	1.8			
	OM Quartz Monzonite				
ELECTRON OF	MD Monzodioritas				
	D Diorito				
	Ed Folsic Dykos				
	End Faldenar Pornhyny Dyko				
	Md Mafie Dykes				
	Ind mane bykes				
	Um Ultramafic Rocks		Bit Oliver Geoscience International Ltd.		
		A STANDA	ALPHA GOLD CORP.		
		G-Cri	Lust Dust Project		
		03-11-03.	Generalized Cross Sectional Legend		
		SCIEN	Date 10/31/03 Scale NTS -		

## 11.5 2003 Summary Drill Hole Descriptions: Bralorne Takla Mercury Mine.

A total of four drillholes where collared in the area of the Bralorne Takla Mercury Mine. Three of these drillholes where successfully completed, one of them, DDH 3 – 41, was abandoned after encountering underground mine workings. All drillholes where collared largely, if not solely on the basis of the location of underground workings and limited historical data relevant to the location of underground workings. At the time of drilling, no other technical surveys, including soil geochemical surveys had been completed. The results of these surveys may be briefly summarized:

All boreholes intersected very large calcite, low silica, vein systems. The style and form of vein development suggests that these veins are likely classic orogenic, not epithermal, veins. Thick, well banded, dog-tooth textured calcite veins, Plate 7, may pre-date epithermal mercury mineralization.



Plate 7. Banded calcite, low-sulphide, orogenic vein, DDH 3 – 40. This large vein extends from 93.2 m to 95.4 m. The vein is not significantly geochemically anomalous in either base, precious metals or mercury mineralization.

# DDH 3 – 39, Dip - 45°, Azi 090°, E 349231, N 6160534, T.D. 178.0 m DDH 3 – 40, Dip - 60°, Azi 090°, E 349231, N 6160534, T.D. 182.2 m

# Section 6160550 N Mine Site. Figure 27 & 27a.

These DDH's were collared 45 m west of the main shaft collar of the Bralorne Takla Mercury mine.

The drillholes traverse two significant fault structures, which are cored by deformed and carbonitized ultra mafic rocks. These rocks define the trace of the individual strands of the Pinchi Fault.

The stratigraphic section is dominated by a thick limestone package. The sequence contains spectacular depositional breccias, likely fore-reef breccias, as well as minor mafic tuffaceous rocks, Plate 8. Sulphide rich lamella are noted within these breccias and in DDH 3 – 40, these lamella may carry up to 0.33 % As. Significant gold or precious metals are not associated with these early sulphide phases. These highly angular heterolithic breccias have not been noted in any of the carbonate packages within the Lustdust Property.

Maximum mercury values are low, 72 ppm over 2.1 m (93.3 - 95.4) in DDH 3 - 39 and 173 ppm Hg over 1.9 m (40.8 - 42.7 m) in DDH 3 - 40.



	LEGEND				
	SURFICIAL DEPOSITS: Ovbn Overburden SUPERCRUSTAL ROCKS HF Biotite Hornfels L Limestone Lp PI Limy Phyllite Ap Argillaceous Phyllites	SECOND OF ROCH Sk Skarn Sk Skarn RSk Retu MZ Miner S Mass V Voin	ARY LITHOLOGIES - PRODUCTS ALTERATION ograde Skarn alized Zone / ive Sulphide /		
	Lcs Calcite Knot Limestone	SVMDOL			
	SP Siliceous Phyllite	STMBOL	Sand MODIFIERS		
	C Chert	Foliation	(S1)		
	A Argillite	Fault			
	Mt Mafic Tuffs	x Brec ⊮ Vein	ciation		
	CA Cherty Argillite	5.9 8500 gold 3.6 as n	(g/t) copper (ppm)/ m's oted on section		
	INTRUSIVE ROCKS	Au(g Hg(p	/t)/ Ag(ppm) / m's pm) / As (ppm) / m's		
	M Monzonite				
	QM Quartz Monzonite				
	MD Monzodiorites				
1.1	D Diorite				
	Fd Felsic Dykes				
	Fpd Feldspar Porphyry Dyke				
(Thursday)	Md Mafic Dykes				
	Um Ultramafic Rocks	and a second second	🕬 - Oliver Geoscience International Ltd.		
		CA A A	ALPHA GOLD CORP.		
		Jellin	Lust Dust Project		
		03-11-03.	Generalized Cross Sectional Legend		
			Date 10/31/03 Scale NTS -		



Plate 8. Angular, depositional breccias, Bralome Takla Mercury mine. The breccias are likely depositional and not tectonic in origin. No hydrothermal alteration is associated with these breccias and no brittle-ductile fabrics are identified.

DDH 3 – 41, Dip - 45°, Azi 085°, E 349270 N 6160633, T.D. 50.6 m DDH 3 – 42, Dip - 50°, Azi 085°, E 349270 N 6160633, T.D. 212.1 m

# Section 6160650 Mine Site Figure 28 & 28a.

DDH's 3 - 41 and 3 - 42 where collared 100 m north of DDH's 3 - 39 and 3 - 40. The drillholes on this section where also collared 50 m's west of an exposed decline. The decline is located on strike, 100 m, to the north-northeast of the main Bralorne Takla shaft.

DDH 3-41 was abandoned after encountering an open stope, or large karst structure between 47.2 and 50.6 m.

DDH 3 – 42 was collared 5° steeper than DDH 3 – 41, and was successfully completed to its terminal point at 212.1 m. This drillhole is collared in limestone and traverse a nearly exclusively limestone dominant section through to its lower contact with strands of the Pinchi Fault which are clearly defined by the presence of a highly strained ultramafic body and by an abrupt lithologic change to a sequence dominated by well laminated clastic sediments at the terminal point of this borehole. DDH 3 – 42 intersects a maximum of 209 ppm Hg over 1.3 m (84.5 – 85.8) and no significant base or precious metals values. Mercury is contained within small breccia and fracture zones as in noted on Plate 9.



Plate 9. Distribution of cinnabar in DDH 3 –42. Small aggregates of bright red cinnabar are noted in the centre of the drill core. No definitive vein association is noted with this mineralized zone.



	LEGEND						
	SURFICIAL DEPOSITS:						
	Ovbn Overburden						
	SUPERCRUSTAL ROCKS		SECONDA OF ROCK		OGIES - PRO N	ODUCTS	
	HF Biotite Hornfels		01.01				
	L Limestone		Sk Skarn	1 01			
	Lp PI Limy Phyllite		rsk keti	ograde Skarn			
	Ap Argillaceous Phyllites		MZ Minera S Massi V Vein		ralized Zone / sive Sulphide /		
	Lcs Calcite Knot Limestone						
	SP Siliceous Phyllite		SIMBOL	S and MODIFIERS			
	C Chert		Foliation	(S1)			
	A Argillite	Fault	Fault	cciation			
	Mt Mafic Tuffs		x Brec				
	CA Cherty Argillite	5.9 8500 3.6 gold (g/t) copper (ppm)/ m's					
	INTRUSIVE ROCKS		Au(g/t)/ Ag(ppm) / m's Hg(ppm) / As (ppm) / m's				
	M Monzonite						
	QM Quartz Monzonite						
SER.	MD Monzodiorites						
and a second	D Diorite						
	Fd Felsic Dykes						
9.04	Fpd Feldspar Porphyry Dyke						
	Md Mafic Dykes						
	Um Ultramafic Rocks			Ma Oliver (	eoscience In	ternationai Ltd.	
		Qu		ALPHA GOLD CORP.			
			LIVER	Lu	ist Dust P	roject	
		Contraction of the second	NIS .	Gener	alized Cross Legend	Sectional	
				Date 10/31/03	Scale NTS	-	

## 12.0 SOIL GEOCHEMICAL SURVEYS: OVERVIEW.

Soil geochemical surveys were conducted in two areas including an extensive survey which centred on the Bralorne – Takla Mercury Mine area and a second survey which covered the northern extension of the Canyon Skarn mineralized zone. This survey is positioned on the southern flank of the Dream Creek Canyon.

In total 31.5 line kilometres of cut and chained grid where completed over the Bralorne – Takla grid area and 5.8 km of cut and chained grid where established in the north grid area. Six out of a total of eleven grid lines were completed on the northern, Dream Creek, grid. Time and weather conditions precluded completion of the survey in this area. In total, 695 soil samples were collected from both the Bralorne – Takla and Dream Creek Grid areas. Twenty – seven standards were inserted into the sample sequence to provide analytical control for this soil survey.

Grid positioned was established by a compass and chain survey. Stations marked by metal tagged pickets where positioned every 50 metres, and individual lines where established on 100 m centres. Control of the grid position was achieved by acquiring GPS readings on every second station (every 100 m station) on the Bralorne Takla grid. Control on the North grid was obtained by taking GPS readings at the baseline position on the 5 out of 6 lines completed in this area. Oliver walked and mapped 29 out of the 31.5 line kilometres of the Braiorne Takla grid. All soil pits where checked. Out of more than 695 test pits only 8 where re-done due insufficient sample depths on the original survey. All raw data for these surveys is compiled in digital format in CD-2. The sample number in this data base corresponds to the line position no other sample identifier is used. The geochemical sub-intervals for each individual element has been determined by empirical not statistical methods. Analytical control was obtained by submitting one standard sample, Cu 108, for every line completed. In total 22 known standard samples where used in this survey. All soil geochemical standards are compiled in digital format in CD 2.

The surveys covered three physio-geographic areas including:

i. Mature pine forest in overlying well drained boulder and gravel tills.

ii. Over mature basalm forests typically present in moderately drained to poorly drained, organic rich soils.

iii. Very wet, alder bogs, and areas recently flooded through the ambitious efforts of the many beavers inhabiting this area.

Good B horizon soils are developed in the first two physiographic types, but this soil horizon soil is poorly developed in the organic rich bogs which are commonly present in the extreme eastern position of the Bralorne-Takla mine area. A representative soil horizon type is shown on Plate 10.



Plate 9. Well developed B Horizon soils, Bralorne Takla grid. The photograph clearly shows and organic rich (A1) horizon, a light grey strongly leached (A2) horizon and a dark orange brown (B) horizon.

The data suggests that significant cultural contamination was not a problem in these surveys.

## 12.1 Soil Geochemical Surveys: Bralorne Takla Grid Area.

The results of soil geochemical surveys are illustrated on Figure 29, 30, 31 and 32. Raw data for these surveys are compiled digitally in the soil geochemical folders contained in CD 2. Summary comments and interpretations of these surveys are as follows:

Figure 29. B Horizon Soils, Gold and Silver.

Gold and silver geochemical anomalies may grouped as follows:

Bralorne Takla – Mine Anomaly:

A north-south trending gold geochemically anomalous area extends through the central portion of the Bralorne – Takla mine area. This anomaly extends from L 2 + 00 S 0+ 50 W to L 3 + 00 N 1 + 00 W. It's 500 m strike length and narrow width suggests that it may be sourced in a narrow, north south-trending structural zone. The anomaly has been tested by DDH 3 – 39, 3 – 40, 3 – 41 and 3 – 42. Portions of this anomaly may lie to the west of these drill collars.

The isolated gold highs at both the extreme northern and extreme southern end of the grid area (L 7+00 S 1+00 E, L 10 + 00 S 1+ 00 E and L 10 + 00 N 4 + 00 W) may be the northern and southern strike extensions of the Bralorne Takla mine area structural zone.

Northeastern Gold Anomaly. (L 6+ 00 N 6+50 E to L 10 + 00 N 5+50 E)

A scattered and slightly weaker gold anomaly is noted in the extreme northeastern corner of the grid area. Portions of this anomaly, may reflect physiographic changes, as several of these lie close to the low wet ground which may, in part, trace the main strand of the Pinchi Fault.

Core Shack Road Anomaly (L 6+00 S 6+00 W)

A small two to three line anomaly is noted in the extreme southwestern portions of grid area. Although the anomaly is of low to moderate intensity, eight elements, both precious metals, antimony, arsenic and base metals are enhanced. This anomaly may be related to the presence of high level felsic dykes which are commonly noted in this area.

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It is important to note that no significant gold or silver anomaly is associated with any of the three very large trenches identified within the extreme south-central portions of the map area.

Figure 30. Sb – As B Horizon Soils.

Bralorne – Takla Mine Area.

These two elements define the best anomaly clusters within the survey area. The Bralorne – Takla Mine anomaly closely overlaps the gold-silver anomaly and again has an approximate 500 m strike length, antimony anomalies exceeding 20 ppm are common within this area.

It is relevant to note that the north and south termination of this anomaly corresponds to the absence of a significant outcrop field. The anomaly may be screened by excessive drift cover.

#### Northeastern Anomaly

A strong boot shaped anomaly occurs over a 500 m strike length in the northeastern corner of the survey area. The style and form of the anomaly suggests that its source is not the linear structural zone near the Bralorne Takla mine area. The boot shape of the anomaly, its width, and its relation to topography suggest two possible scenarios for its source:

i. The anomaly is related to down slope dispersion from the drainage system, just north and west of L 10 + 00 N which is the lower drainage system of Canyon Creek. This creek drains the main Canyon Skarn mineralized zone.

ii. The anomaly is related to non-planar source at depth, potentially a buried intrusion.

Line 8 + 00 N 6 + 00 West

A strong As – Sb anomaly occurs near the western limit of line 8 + 00 N, a possibly related arsenic anomaly is noted on Line (9 + 00 N at 6 + 00 W) which closely corresponds to a gold anomaly in this same area. No identified source is recognized for this multi-element anomaly.

#### Core Shack Road Anomaly

A minor arsenic antimony anomaly corresponds to the gold-silver Core Shack Road anomaly. No lithologic component to this anomaly is identified.


The three large trenches in the south central map area have no significant arsenic or antimony association. It is likely that these trenches have been placed largely on the strike relations of the main Balorne – Takla Mercury mine anomalies and related north-northwest trending structural zones.

Figure 31. Cu – Hg B Horizon Soils

Bralorne - Takla Mine Anomaly

Relative to either Au-Ag or As-Sb, mercury in soils has a broader and wider distribution. The Hg anomaly remains approximately 500 m in strike length but now has is significantly wider, typically greater than 200 m in width, as opposed to 100 m for either Au or Ag. It is possible that a broader mercury plume envelops the more focused As-Sb-Au-Ag anomalies. No significant copper geochemistry is associated with the Bralorne Takla anomaly.

Northeastern Anomaly

Although Cu roughly outlines the Northeastern "Boot Anomaly", it is best developed only along line 10 + 00 N 2+00 W to 7+00 E. Copper in soils is much weaker along the southern lines of this anomaly which is so well defined by As and Sb.

Weak isolated, 36 - 60 ppm Cu values are noted near the western end of the Line 7 + 00 South trench. No other significant copper anomalies are identified in this area.

Figure 32. Zn – Pb B Horizon Soil Geochemistry

No significant anomalies are identified for lead in B Horizon soils within this grid area. Very broad zinc anomalies are noted in the Anomaly A and Anomaly B areas. An elevated zinc anomaly in the south western map area extends from L 3 + 00 S 6+00 W to L 8 + 00 S 4 + 00 W. This is essentially a single element anomaly, zinc only, and may be formational in origin. Higher zinc contents are frequently associated with fine grained black clastics sediments and cherts.





## 12.1 Dream Creek B Horizon Soil Geochemical Grid:

Six grid lines of a total of eleven, were completed on a grid positioned directly along strike from mineralization encountered in the Canyon Skarn. Grid lines were 800 m length, with sample stations collected on 50 m centres using 100 m line spacings. In comparison to the Bralorne – Takla Grid, several distinct differences between element groupings are noted between the two grid areas:

i. Soil geochemical values for silver are elevated, on the Dream Creek Grid, relative to that identified for silver on the Bralorne – Takla grid.

ii. Soil geochemical values for antimony and arsenic are elevated across the Dream Creek grid area relative to the Bralorne Takla grid area.

iii. Lead is markedly elevated on the Dream Creek grid relative to the Bralorne Takla grid. Zinc values are similar on both grids.

iv. Mercury is much lower on the Dream Creek grid in comparison to the Bralorne Takla grid.

v. Copper has a similar distribution on both grids.

As the Dream Creek grid has not been completed it should be viewed as an orientation grid. None-the-less, the survey is clearly able to define anomalous geochemical areas in an area of no outcrop with heavy organic and vegetation cover. Summary interpretations are as follows:

Figure 33. Au – Ag Dream Creek Grid.

A 150 m wide strong Ag anomaly is noted on L 20 + 00 N, 24 + 00 W. This anomaly is directly on strike, 400 m's to the north of the last exposure of the Canyon Skarn mineralized zone. The silver-gold anomaly weakens down slope and may be lost under thick till cover.

It is also of interest that gold silver anomaly on the eastern portions of L 23 + 00 N and L 24 + 00 N is also directly on strike, but 1500 m's north, with the north trending mineralization outlined in the Number 3 Extension zone.

Figure 34. Sb – As Geochemistry: Dream Creek Grid.

If the same thresholds are used on this grid, as compared to the Barlorne – Takla grid, over half of the samples in both As and Sb are strongly anomalous. Antimony is most well developed along the externe eastern and central grid areas. The eastern grid anomaly may be a reflection of the proximity of the contact with the Glover stock. The central anomalous areas may be roughly identifying the position of the through going extension of the Canyon Skarn Zone. Arsenic follows a similar distribution pattern.





Figure 35. Cu – Hg Soil Geochemistry: Dream Creek Grid.

Of the major elements documented, copper and mercury show the highest "noise" level of any of the 8 elements plotted. Mercury is virtually never anomalous. This is in marked contrast to the anomalies generated over the Bralorne Takla grid area.

Copper has a slight, but weak tendency to cluster near the central and eastern positions of the Dream Creek grid. No increase in copper in soils is noted proximal to the eastern contact of the Glover stock.

Figure 36. Pb – Zn Dream Creek Grid.

A strong coincident lead-zinc geochemical anomaly corresponds to the Ag anomaly identified on the preceding Figure. This anomaly is again directly on strike to the north of mineralization within the Canyon Skarn zone.

A coincident Pb – Zn anomaly is also noted along the eastern edge of L 22+00 to L 24+00 N. This anomaly is also approximately on strike to the north with the Number 3 Extension mineralized zone.

There is a good correlation between As – Sb and Pb – Zn anomalies, suggesting common sources for all four elements.

It is clear even from this very limited orientation survey, that B horizon soils, may prove to be a reliable and cost effective exploration tool in the Dream Creek – Canyon Creek surficial environment. These surveys should be substantially expanded in the 2004 exploration season.





## **13.0 SAMPLING METHOD AND APPROACH**

Core Sampling:

Definition of the intervals used for assaying were determined by the geologist at the time of logging. The criteria for assay intervals where based on a combination of alteration, skarn mineralogy, sulphide mineralogy and lithology. Assay intervals were commonly based on a 2.0 m interval, although interval widths were also controlled by geological, structural or mineralogical contacts. samples were deemed representative and no macro-scale biases are believed to have influenced sample representivity.

Sample tag numbers, along with borehole and footage numbers are provided in digital form on CD 2. The interval widths in this table are drill indicated; no estimate of true width is attempted. Complete description of ALS Chemex Analytical techniques for ICP-MS and assay procedures are outlined on the same compact disc. Hard copy ALS Chemex "Certificate of Analyses" for these samples are available from the corporate offices of Alpha Gold.

Prior to splitting, all core was photographed using a digital camera. Digital photos for all core are compiled in CD - 1. Drilling recoveries were generally good in sulphide mineralized zones, > 85%. Recoveries were often much weaker, < 20%, in oxide mineralized zones. Recoveries may be verified by examination of the sample intervals and recoveries noted on the digital photographs.

Soil Sampling:

A samplers were clearly instructed in the techniques of "B" horizon soil sampling. Sample horizons where identified and the rationale for collecting B horizon soils outlined. Sampling was done using narrow mouthed tree planting shovels. Most samples could be collected from a depth of 10 - 20 cm. Sufficient sample was taken to fill a kraft soil sample bag.

On the Bralorne – Takla grid, over 600 soil pits where examined by Oliver. Out of this number, 8 pits where re-sampled due to insufficient depths or poor horizon recognition.

## 14.0 SAMPLE PREPRATION, ANALYSES AND SECURITY

All core was half split using a hydraulic splitter by an employee of Oliver Geoscience International Ltd. Doubled plastic bags were used with sample numbers marked on bags and on durable tags included with the core samples. A second tag was stapled into the core box, which further demarcated the position of the sample. Samples were placed in sealed rice bags and, for most of the program stored in a locked box, which was constructed on site. The samples were transported by truck from the field to ALS Chemex labs in Vancouver by Mr. R. Whatley a director of Alpha Gold Corp.

Specific gravity determinations where done on site using a triple beam balance. Selection of the samples for specific gravity analysis was done by the geologist at the time of logging. Specific gravity determinations were performed by an employee of Oliver Geoscience International Ltd. As a control on the accuracy of these measurements an object of know density, lead, was measured during the process of determining specific gravities. Specific gravity data are compiled in a digital format on Compact Disc 1.

A timber pad was constructed for the core and all core was cross lapped and covered in wire mesh and plywood. The core is stored on site, at the old Takla Silver Mine. Bulk assay rejects are held by Alpha Gold Corp., in their storage facility.

All half core splits, averaging approximately 2 m of half split NQ core, plus miscellaneous surface samples were assayed at Chemex Laboratories Ltd. in Vancouver, using a standard 33 element ICP package (9402) plus Au and Ag (fire assay: AA finish, 9413). Atomic Absorption analyses were performed on all over-limit Au, Ag, Cu, Zn, Pb samples. ALS Chemex is an ISO 9002 certified lab. In addition to internal Chemex quality control standards, three external standards were used. These were purchased in the form of pulps from Western Canada Minerals (WCM). Two gold and one copper and where used. The analytical characteristics of these standards are documented in Appendix 8.

## **15.0 DATA VERIFICATION**

Two verification and quality control procedures where used during the 2003 field season. For soil samples a single standard, "Cu –108" was used as the quality control standard. One standard was inserted per line of geochemistry. In total 27 standards where inserted into the soil geochemical stream. This averaged 1 standard per 26 samples.

Inserting known standards into the sampling sequence provided control for drill core. One standard was used in each drill hole, with the exception of DDH 3 – 41, a hole which was abandoned in mine workings at the Bralorne – Takla Mine. Three standard were used "Cu 108", "PM 169" and "PM 906". All of which were purchased from WCM minerals. These standards are used in addition to any internal Chemex standards.

Once analytical data was received in a digital form it was further checked and verified by Mr. Lyle Morganthaler M.Sc., P.Eng. Any queries or concerns

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about individual samples, missing samples or samples other than those from 2003 drill core were identified at that time.

#### 15.1 Data Verification: Drill Core.

Data verification proceeded in the following stages:

1. Two gold standards, PM 169, containing 0.63 g/T Au and PM 906 containing 5.67 g/t Au where used as control standards inserted into the sample stream. PM 169 is a low sulphide standard and PM 906 is a high sulphide standard. One copper standard (Cu 108, containing 0.66% Cu) was inserted in minority of drillholes. In total, 32 standards where submitted. Of these, 15 were indicated by the lab to have insufficient volume for analysis. Of the remaining 17 standards, PM – 169 was analyzed 14 times and forms the backbone of the control for the core samples of the 2003 program. These samples provide an estimate of the accuracy of analytical technique, but does not relate to any determinations regarding the precision of the analysis.

The results of the analysis of standard samples are shown presented in Appendix 8. The median of 14 samples submitted for gold analysis PM - 169 was 0.554 ppm. These analyses had a standard deviation of 0.160. This mean value is 13.7% lower than the reference standard which contained 0.63 ppm Au.

It is important to note that the 2002 exploration program utilized an identical gold standard. In the 2002 drill program, the mean of 16 samples submitted for gold analysis, PM –169, was 0.642 ppm Au. The value more closely corresponds to that of the known reference sample, PM 169 contains 0.63 g/T Au. The 2002 results come within 1.9% of the known value of the reference standard.

2. An estimate of the variance in specific gravity determinations, was done by repeated analysis of a standard density object, a lead coil. All specific gravity measurements, including measurement of the reference standards are compiled within the sample data sheets compiled within each individual drill hole file (CD 1).

## **15.2 Data Verification Soil Geochemical Surveys**

The standard sample used in the geochemical surveys was "Cu 108". This sample contained:

4. The use of B horizon soil surveys has been successful in detecting anomalous areas of base and precious metals geochemistry in soils on the southern flanks of Dream Creek, on strike to the north, of the known mineralization in the Canyon Skarn and Number 3 Zone. These surveys should be viewed as orientation surveys in their style and form. The Dream Creek grid area has a different geochemical signature to the surveys conducted over the Bralorne – Takla mine area. These differences likely reflect the nature of the bedrock target types, lower temperature distal veins and replacements in the Bralorne – Takla mine area and higher temperature proximal calc-silicates and replacement sulphides in the Dream Creek area.

# **17.0 RECOMMENDATIONS**

The results of the 2003 exploration program clearly warrant subsequent exploration. Recommended collar locations for a series of boreholes testing the Number 1, 3 and Canyon Skarn zones are shown on Figure 37.

1. Additional drill testing and follow-up of all higher grade intersections obtained during the 2003 exploration season is required. In particular, these include the high grade intersections in the Number 3 oxide zone, DDH 's 3 - 27 to 3 - 30. This oxide zone has a known surface strike extension of greater than 600 m, but the 2003 drill testing of this zone focused on only a 50 m strike length. The potential of this zone should not be undervalued. In an effort to reduce core loses, drilling of oxide zone mineralization should only be done using a triple tube core system. Strong efforts must be made to reduce core loses of potentially very high grade oxide mineralization from boreholes collared in this area.

- Similarly the strong intersections obtained from targets within the Canyon Skarn should be pursued including DDH's 3 – 33, 3 – 35, 3 – 36 and 3 – 37. It is critical to note that the high grade on-strike mineralization of the footwall mineralized zone drilled on strike to the North and up and down dip of DDH 2 – 02 and on strike to the south of DDH 2 – 09 has not been drill tested. These targets remain viable but should only be pursued using controlled drilling techniques.
- 3. An effort should be made to test the nature of the style-form and distribution of sulphide rich mantos in the Number 4b Zone. Drilling on the Number 3 zone has recently demonstrated that relatively large panels of mineralized rock may be localized to the antiformal closures of regional antiforms. A

similar antiform exists in the Number 4b Zone and should be drilled with the same confidence as has recently been demonstrated on the Number 3 mineralized zone.

- 4. Continue to drill test the higher temperature skarns intersected in DDH 2-17, 2-18 and 2-19 farther along strike to the north-northwest. A drill pattern to test both the Canyon Skarn and the footwall calc-silicates is recommended. A zone of a strike length of approximately 1000 m north-northwest of the collar of DDH 2-19 should be tested. Prior to the initiation of diamond drilling a program of surface rock and soil geochemical sampling should be expanded beyond the limits of the 2003 Dream Creek orientation soil survey. Interpretation of the geochemical program could be enhanced with the integration of cost effective ground based geophysical programs, principally magnetometer surveys.
- 5. Geochemical surveys along the trace of the Pinchi Fault should be expanded to the north and two the south of the current Bralorne Takla grid.
- 6. The geological map base has been improved in the 2003 field season but this has been done only in an ad-hoc basis. The property still does not have an up to date surface map which integrates both subsurface and surface rock relationships. The property requires a well compiled 1:2,500 scale geological map. Strong geological maps are an essential exploration tool in any rock environment, and greatly add both to the cost effectiveness and to the likelihood of a positive exploration outcome.
- 7. A scoping study should be undertaken to formulate more reliable mineral resource estimates than are currently available for the numerous mineralized zones on this property. The scoping studies will be more qualitative than desired due to the absence of down-hole survey control on any boreholes drilled prior to 2002. Regardless, the information that may be derived from these studies could prove beneficial in the prioritization of target areas and in the overall understanding of the nature of the mineral resource at Lustdust.

An exploration program for the 2003 exploration year may be recommended as follows (all figures in Canadian dollars):

1. 8,000 m's of NQ drilling and related assaying:	\$ 720,000
2. Geological (mapping, core logging, reporting)	\$ 80,000
3. Data base development – mineral resource	·
scoping studies	\$ 45,000
4. Ground geochemistry and geophysics	\$ 50,000
5, Road construction, Environmental Studies	
and Remediation	\$ 40,000
6. Lithogeochemistry	\$ 3,000
7. Petrography	\$ 2,000
8. Camp and logistical costs, contingencies and management.	\$ 60,000
management.	

# Total Recommended 2003 Exploration Program: \$ 1,000,000

Preliminary collar locations for these drill holes are provided on the 1:5000 scale map, Figure 37.

At Lustdust, many exploration opportunities, some documented by this report, continue to exist for diverse target types and styles of mineralization. In the opinion of the writer, the results of the 2003 exploration program clearly warrant expanded follow-up and exploration during the 2004 exploration season. Lustdust continues to produce exceptional results within a unique and challenging exploration environment. There is every reason to suggest this trend will continue into the 2004 exploration season.

Jim L. Oliver, Ph.D., P.Geo. November 3, 2003.

Kamloops, British Columbia.



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# **19.0 CERTIFICATE OF AUTHOR**

I, Jim L. Oliver, Ph.D., P.Geo., do hereby certify that:

1. I am currently employed as a consultant geologist by:

Oliver Geoscience International Ltd., 4377 Karindale Road, Kamloops, B.C. Canada. V2B 8N1.

- 2. I hold an B.A. (Hons.) in Psychology, conferred by Simon Fraser University in 1976; a B.Sc. (Hons) in Geophysics and Geology conferred by the University of British Columbia in 1982; a M.Sc. and Ph.D. in Geology conferred by Queen's University in 1985 and 1996 respectively.
- 3. I am a member, in good standing, of the Association of Professional Geoscientists of British Columbia.
- 4. I have worked as a geologist continuously for twenty years in a wide variety of geological environments both within Canada and internationally.
- 5. I have read the definition of "qualified person" set out in the National Instrument 43-101 (NI 43-101") and certify that by reason of my education, affiliation with professional associations (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for (subject to points noted in the "Disclaimer" section 3) the preparation of sections 1 19 of the technical report titled "Report on the 2003 Exploration and Diamond Drilling of the Lustdust Property Omineca Mining Division, British Columbia, Canada, (93N/11W)" and dated November 3, 2003 ("the Technical Report") relating to the Lustdust property. I worked on site at the Lustdust property for a 14 week period between mid May and mid-September, 2003.
- 7. I have had no prior involvement with the Lustdust property, prior to the 2002 exploration season.

- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclosure which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all the tests in section 1.5 of the National Instrument 43-101.
- 10.1 have read National Instrument 43-101 and From 42-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 3<sup>rd</sup> day of Novemeber, 2003.

Signature of Qualified Person

Gin h- Ohin

CESSION ARCHEEN L. OLIVER C3-/1-03

Printed name of qualified person.

Jim L. Dliver

Stamp of Qualified Person

## **STATEMENT OF COST:**

# 2003 EXPLORATION, ALPHA GOLD CORP. LUST DUST PROPERTY, NORTH

# CENTRAL BRITISH COLUMBIA.

During the 2003 exploration season, the following costs were incurred during the implementation of the exploration program on Alpha Gold's Lust Dust property. A summary of these costs, in Canadian dollars, is as follows:

#### **Diamond Drilling:**

7,908 m of NQ diamond drilling	@ \$ 61.34 m	\$485,076.72
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#### Assay and Analytical:

Rock: 669 diamond drill core rock samples @ \$ 20.00 per sample \$	13,380.00
Soil: 650 B horizon soils @ \$ 17.00 per sample \$	11,050.00
Standard Samples: 60 samples @ \$ 14.00 \$	840.00

#### Line Cutting:

37.3 km's @ \$ 563.00 per km\$	21,0	00.	.0	0
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## Geological - Technical:

Project Geologist: 105 days @ 650.00 per day	\$ 68,250.00
Field Assistant: 84 days @ \$ 180.00 per day	\$ 15,120.00
GPS Surveys 5 days @ \$ 1,000.00 per day	\$ 5,000.00
AutoCad Gemcom - Data Base & Report Development	\$ 25,000.00

#### Logistics:

Vehicle Rental (2, 4x4's) \$ 2,000.00 / month per vehicle, 2.25 months:	\$	9,000.00
Camp Charges \$ 50.00 per day per person, (300 person days)	\$ 1	5,000.00
Fuel and miscel. field Supplies	.\$	5,000.00

#### **Environmental – Reclamation**

Excavator re-contouring of roads, drill pads, waste dumps, seed and	
fertilizer \$ 25,0	00.000

# GRAND TOTAL 2003 LUSTDUST PROGRAM: ...... \$ 698,716.72

J. Oliver, Ph.D., P.Geo. March 12, 2004.

1. Oli-March 12 2004.