ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 West Hastings Street
Vancouver, B.C. V6B 1L8
Telephone: 604-688-2568 Fax: 604-688-2578

ASSESSMENT REPORT

describing

TRENCH SAMPLING AND METALLURGICAL TESTING

at the

STUMP PROPERTY

AT 1-4 YB91866-YB91869

NTS 105F/9
Latitude 61°32'N; Longitude 132°09'W

in the

Watson Lake Mining District,
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

KLONDIKE SILVER CORP.

by

W. Douglas Eaton, B.Sc. Geology

March 2007

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APPENDIX

FIGURES

c

INTRODUCTION

The Stump property hosts silver-lead vein mineralization that has been partially delineated by bulldozer trenches, diamond drilling and underground development. The property was sold by a group of private investors to Klondike Silver Corp. in spring 2006.

This report describes results of trench sampling and metallurgical tests that were conducted to determine whether or not crushed silver-lead rich material could be easily separated from weakly mineralized gangue by simple gravity processes. The samples were collected by personnel from Archer, Cathro & Associates (1981) Limited between August 11 and 15, 2006. The metallurgical tests were performed at SGS Lakefield Research Limited in spring 2007. The program was supervised by the author and his statement of qualifications appears in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The property consist of four contiguous mineral claims located in the southern Yukon at latitude 61°32'N and longitude 132°09'W on NTS map sheet 105F/9 (Figure 1). The claims are registered with the Watson Lake Mining Recorder in the name of Archer Cathro, which holds them in trust for Klondike Silver. Claim registration data are listed below while the locations of individual claims are shown on Figure 2.

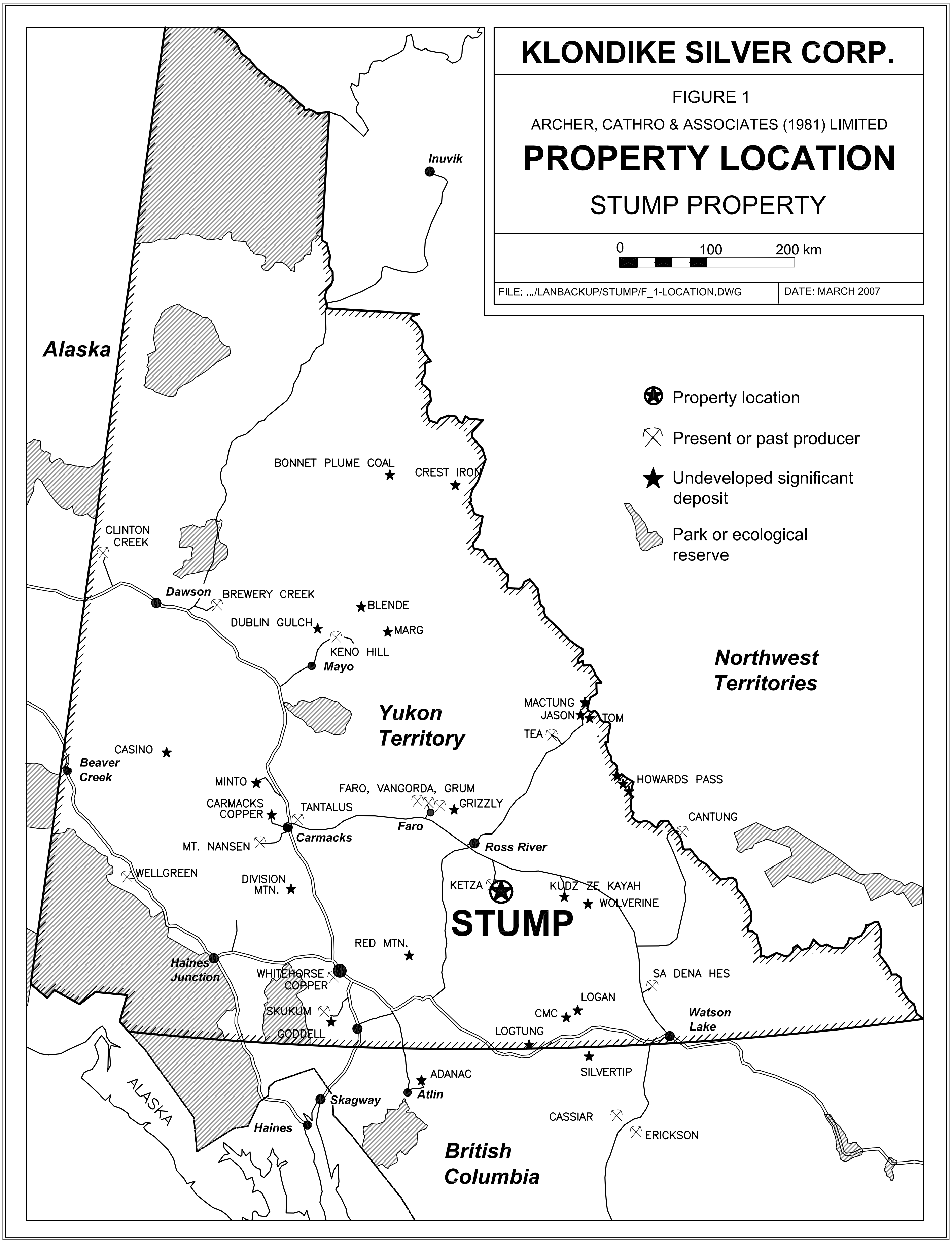
Claim Number	Grant Number	Expiry Date*
AT 1-4	YB91866-YB91869	February 04, 2012

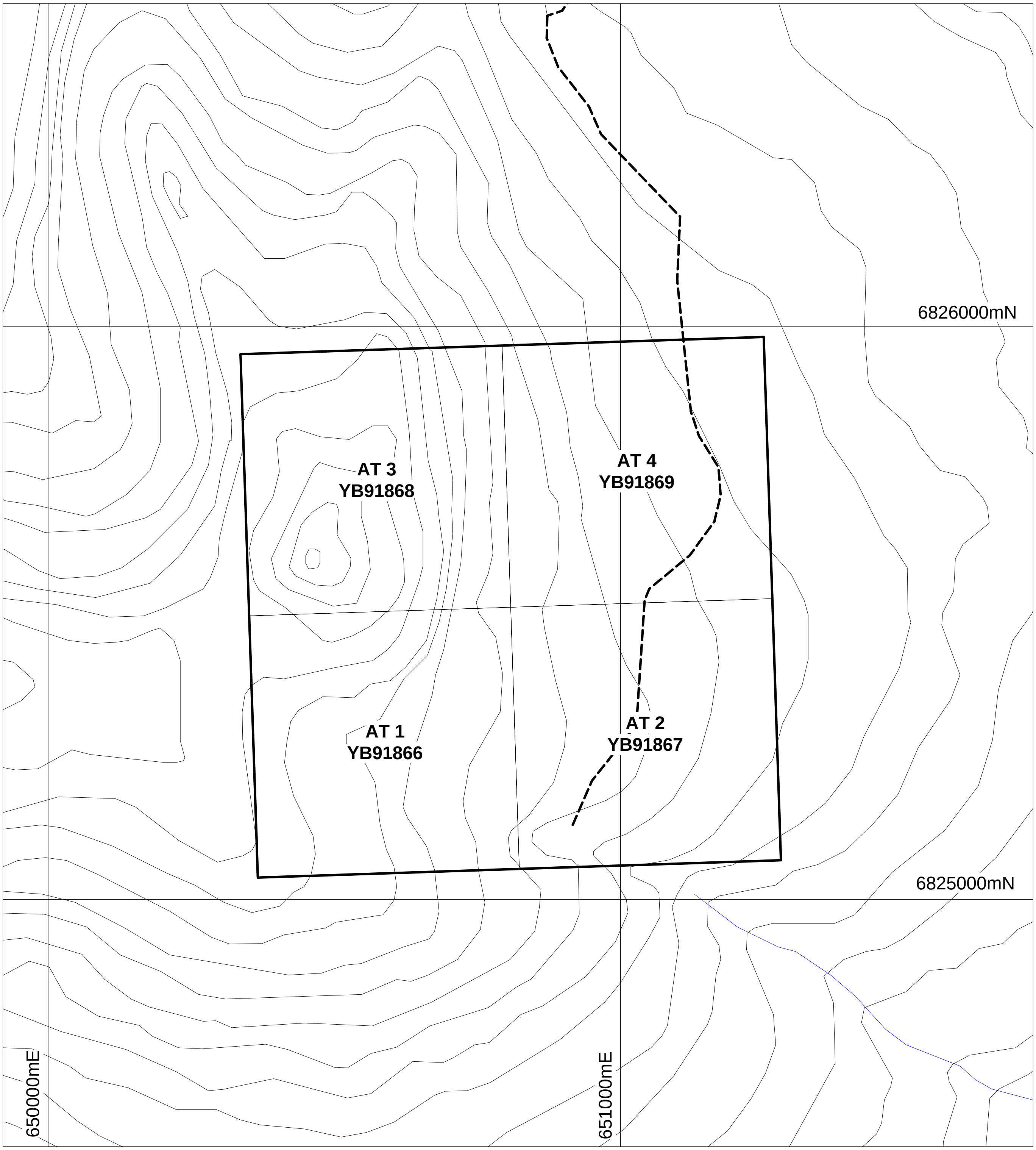
* Expiry date includes 2006 assessment work which has been filed but not yet accepted.

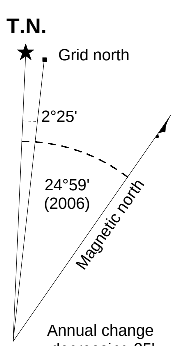
The Stump property is accessible by an abandoned, approximately 4 km long, four-wheel drive road (Stump Road) that extends south from Ketza Road (Figure 2), a two-lane haulage road that links the dormant Ketza Gold Mine to the Robert Campbell Highway at a point approximately 36 km by road southeast of Ross River. From the turnoff onto the Stump Road to the highway is about 30 km. The Ketza Road is in excellent condition except for a 200 m stretch where the Ketza River is eroding into the road bed.

The Robert Campbell Highway is part of the main Yukon road network and is maintained by the territorial government year round. It provides access to the seaport at Skagway in Alaska by first travelling west from the property to Carmacks, then south on the Klondike Highway through Whitehorse to Skagway (Figure 1). Alternatively, Watson Lake and the Alaska Highway can be reached by travelling southeast along the Robert Campbell Highway.

At present the Stump Road is partially overground by slide alder and is badly rutted. The crew accessed the property in 2006 by driving to the junction between the Stump Road and Ketza Road then flying to the claim block via a Bell 206B helicopter, operated by Trans North Helicopters from its base in Ross River, about 50 km to the northwest. The Stump Road could be upgraded again to four-wheel drive status with a few hours of bulldozer or excavator work.


KLONDIKE SILVER CORP.
FIGURE 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
PROPERTY LOCATION
STUMP PROPERTY
0
100
200 km
FILE: .../LANBACKUP/STUMP/F_1-LOCATION.DWG
DATE: MARCH 2007
Property location
Present or past producer
Undeveloped significant deposit
Park or ecological reserve
Alaska
Inuvik
Northwest Territories
Yukon Territory
British Columbia
ALASKA
BONNET PLUME COAL
CREST IRON
CLINTON CREEK
Dawson
BREWERY CREEK
BLENDE
DUBLIN GULCH
MARG
KENO HILL
Mayo
MACTUNG
JASON
TOM
TEA
CASINO
Beaver Creek
MINTO
FARO, VANGORDA, GRUM
GRIZZLY
HOWARDS PASS
CARMACKS COPPER
TANTALUS
Faro
CANTUNG
Carmacks
MT. NANSEN
Ross River
WELLGREEN
DIVISION MTN.
KETZA
KUDZ ZE KAYAH
WOLVERINE
STUMP
RED MTN.
Haines Junction
WHITEHORSE COPPER
SA DENA HES
LOGAN
SKUKUM
CMC
Watson Lake
GODDELL
LOGTUNG
SILVERTIP
ADANAC
Atlin
Skagway
Haines
CASSIAR
ERICKSON





---- 4x4 access road

KLONDIKE SILVER CORP.

FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION

STUMP PROPERTY

0 250 500

UTM Zone 8, NAD83, NTS 105F/9

FILE:../LANBACKUP/STUMP/F2_CLAIM_LOC DATE: March 2007

PREVIOUS WORK

The first recorded staking in the area was done in 1954 by Prospector Airways on behalf of a syndicate that included Noranda Exploration Company Ltd. and Kerr Addison Gold Mines Ltd. This syndicate trenched in 1955.

The area was restaked in 1961 by G. Dickson and again in 1965 by a joint venture between Stump Mines Ltd. and Silver Key Mines Ltd. This joint venture conducted grid soil sampling and bulldozer trenching in 1966, drilled five holes totalling 289.6 m in 1967 and completed 427 m of underground development in 1968-69. The underground development included crosscutting, drifting and some raising on an upper level, 37 m below surface, and crosscutting on an uncompleted lower level, 83 m below surface. Silver Key changed its name to Nordev Resources Ltd. in 1972, then optioned Stump Mines' interest in 1974 and conducted a pre-feasibility study in 1975, before dropping the claims.

H. Regeher and partners restaked the property and performed bulldozer trenching in 1976. Late that year they formed Iona Silver Mines Ltd. which conducted more trenching in 1977-78, completed the lower crosscut in 1979 and advanced the lower adit another 66.8 m in 1980. Iona's claims were optioned in 1985 to Canamax Resources Inc., which performed geophysical and geochemical surveys later that year and drilled four holes in totalling 1692.2 m in 1987, before dropping the option.

In 2000, the property was restaked by a group of private investors that included the author. That summer the author performed a site visit to identify logistical and geological factors that could influence effectiveness of a small scale mining operations (Eaton, 2000).

GEOMORPHOLOGY

The Stump property lies within the St. Cyr Range of the Pelly Mountains. It is drained by creeks that are tributaries of the Ketza River, which ultimately drains into the Pacific Ocean via the Pelly and Yukon Rivers. Local elevations range from 1300 m along the Ketza River to 1850 m atop a peak approximately 1 km west of the claim block. The main area of interest is on an easterly trending ridge at about 1500 m above sea level. The vein trace approximately parallels topography on a 10 to 20°, east-facing slope.

The claims straddle treeline. Downhill are scatter clamps of stunted spruce and balsam interspersed with buck bush and slide alder. Uphill are barren talus slopes. The alpine vegetation gives way to mature spruce forest on lower slopes and floor of the Ketza River valley. Soil development is poor and permafrost is likely present throughout the area of interest.

GEOLOGY AND MINERALIZATION

The property lies about 25 km southwest of the Tintina Fault within a package of rocks that are assigned to the Cassiar Platform tectonic element (Figure 3). The Cassiar Platform is a metamorphosed sequence predominantly composed of Paleozoic shallow water carbonate rocks that were deposited atop a Proterozoic clastic wedge on the western margin of the North American craton. The rocks were deformed and metamorphosed during accretion of allochthonous terranes during Mesozoic times. The carbonate strata are widely intruded by preand post-deformation plutons. The two major intrusive events are syenitic bodies of Mississippian age and granodiorite to quartz monzonite plutons of Mid-Cretaceous age. The closest mapped intrusion is about 4 km south of the property. Stratigraphy in the vicinity of the property is Cambrian to Lower Ordovician in age and predominantly consists of phyllite that locally grades to limestone or dolomite. Bedrock exposures are limited in the immediate vicinity of the silver-lead vein and most are in old bulldozer trenches. The wallrocks to the vein are weakly foliated dolomite that shows a wide range of strikes and dips.

The A-1 silver-lead vein strikes northerly and dips at 58° to the west into the hill. It has been traced about 850 m along strike. The vein averages 1.2 m wide and has sharp contacts with the wallrock. The best mineralized parts of the vein usually have 30-75 cm wide cores of semi-massive to massive sulphide. This sulphide-rich material is mostly fine grained galena in a compact siderite gangue that includes occasional, up to 1 cm diameter clasts of dolomite country rock. Other sulphides such as pyrite and sphalerite are rare. The remainder of the vein consists of siderite, more abundant dolomite clasts and minor galena. The silver to lead ratios in the vein are relatively consistent, averaging about 38 g/t silver for each percent lead.

Figure 4 shows results of channel sampling done in 1967 across the floors of bulldozer trenches. The best sample graded 1,731 g/t (50.1 opt) silver and 45.5% lead across 0.67 m. Sampling along a 247 m length of the vein yielded a weighted average grade of 853.6 g/t (24.9 opt) silver and 22.2% lead across 1.2 m. The grade decreases at depth and samples taken from a drift on the upper level, 37 m below surface averaged 329.1 g/t (9.6 opt) silver and 7.5% lead across 1.2 m for a length of 202 m. In 1975, Nordev reported "proven reserves" of 36,280 tonnes grading 353.1 g/t (10.3 opt) silver and 8.4% lead (note: this "reserve" estimate predated NI 43-101 and is not compliant with that policy). The lower adit and step out diamond drilling did not encounter significant mineralization.

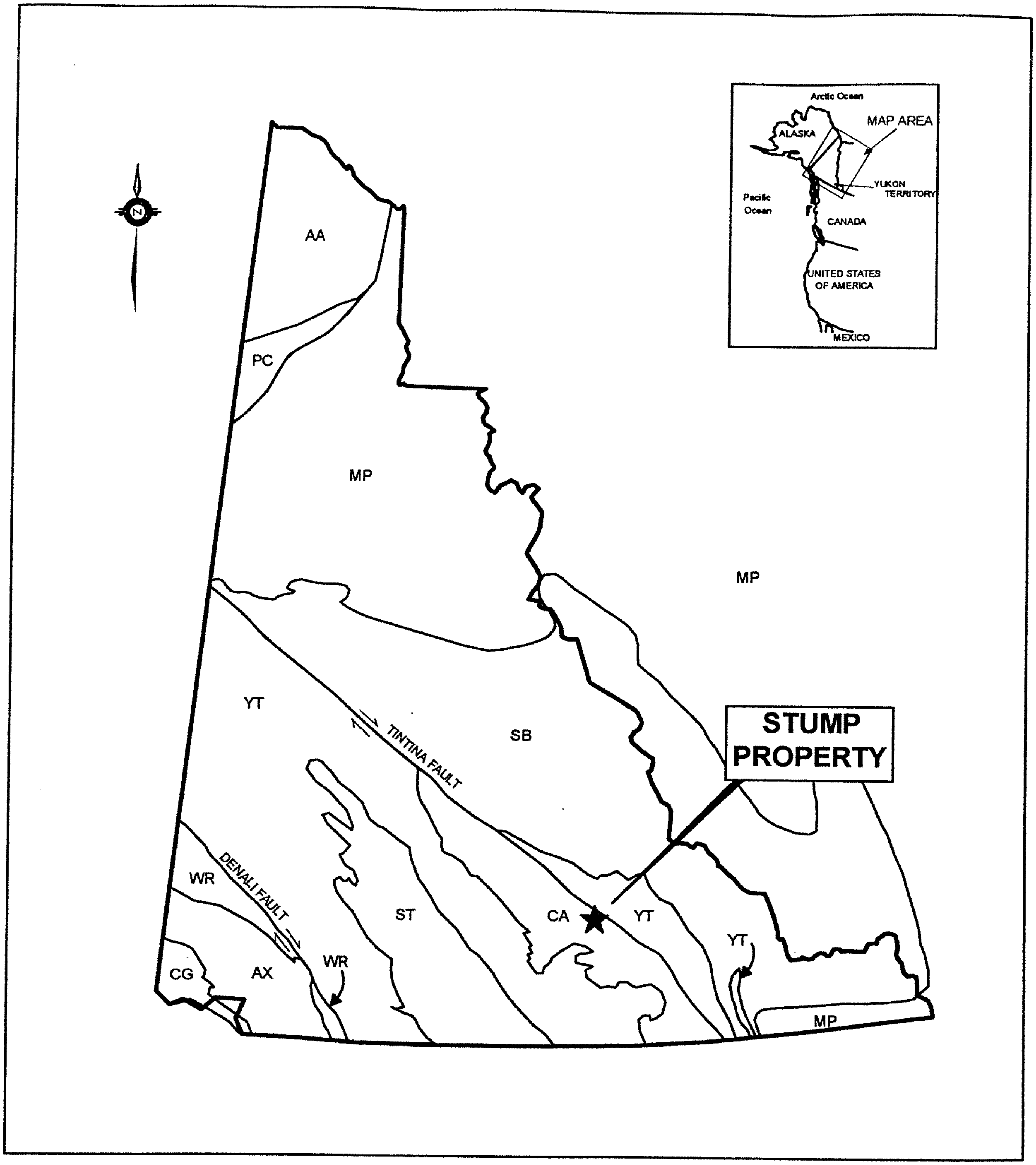
LOGISTICAL CONSIDERATIONS

There is a large clearing on the claim block that would provide ample space for a small, high grade mining or exploration camp. Water could be pumped up to this site from a creek about 300 m to the south but access to the creek is limited by steep canyon walls.

An alternative campsite would be on the banks of Ketza River near the junction of the Stump Road and Ketza Road. This area is well treed, quite flat and would provide abundant, easily accessible water. The camp should not be located on Cache Creek, a tributary of the Ketza River which drains the Ketza Mine workings including the tailing dam.

The Stump Road at the time of the property visit in 2006 was deeply eroded in some stretches (particularly on a steep north-facing side hill) and was largely overgrown with slide alder. Once cleared and leveled the road would provide easy access for four-wheel drive vehicles. Large two-wheel drive trucks (such as dump trucks) should be able to climb up the road provided they can maintain traction in loosely compacted areas.

A gravel airstrip suitable for small airplanes is located near the junction of the Stump Road and the Ketza Road. Although the airstrip is not rutted, it would have to be brushed out before it could be used.



ANCESTRAL NORTH AMERICA

- MP Mackenzie Platform
- SB Selwyn Basin

TERRANES
Displaced Continental Margin

- AA Arctic Alaska
- CA Cassiar
- PC Porcupine

Pericratonic Terranes

- YT Yukon-Tanana / Slide Mountain

ACCRETED TERRANES

- ST Stikinia / Cache Creek
- AX Alexander
- WR Wrangellia
- CG Chugach

KLONDIKE SILVER CORP.

FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

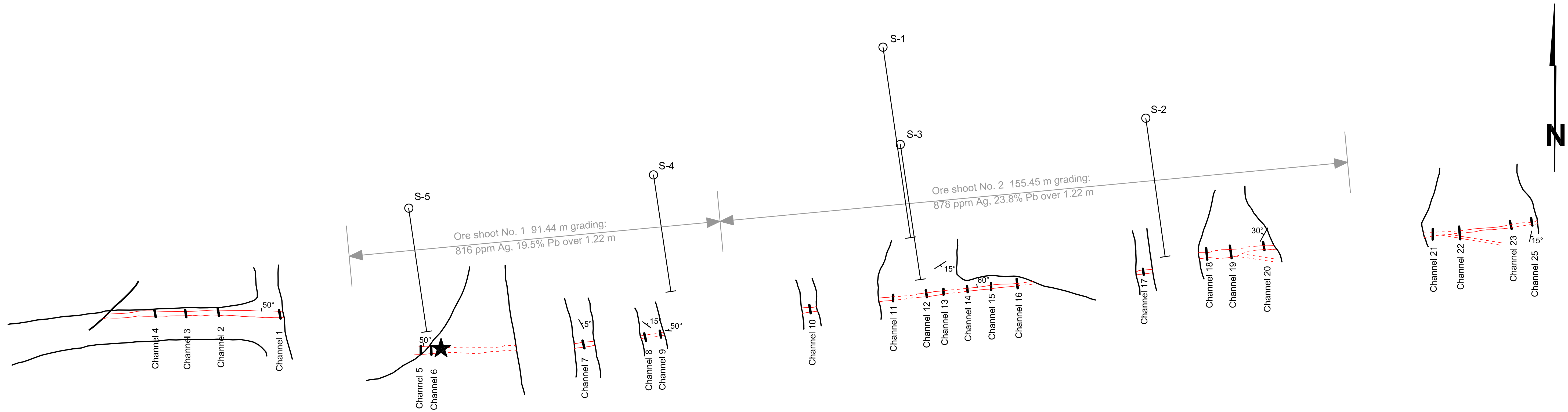
TECTONIC SETTING
STUMP PROPERTY

0 100 200 km

DRAWN\REVISED BY: TCB

FILE: ...\FIG 04 - TECTONIC SETTING

DATE: MARCH 2007



- Vein (exposed/hidden)
- Bedding orientation
- Diamond drillhole
- 2006 sample site

CHANNEL SAMPLE ASSAYS

	Width (m)	Silver (g/t)	Lead (%)
Channel 1	0.15	480	10.2
	0.91	48	1.2
	0.76	41	0.6
Channel 2	0.61	14	0.3
Channel 3	0.46	257	5.6
	0.30	199	6.9
	0.61	72	2.2
Channel 4	0.30	1186	23.4
	0.61	89	2.4
Channel 5	0.61	1930	49.5
	0.91	713	14.3
Channel 6	0.61	3514	67.0
	1.37	730	14.0
Channel 7	0.30	333	9.7
	0.67	1731	45.5
	0.30	185	5.5
Channel 8	0.30	408	12.1
	0.18	1913	56.5
	0.30	408	9.1
Channel 9	0.46	17	tr.
	0.15	1077	36.2
	0.46	158	3.3
Channel 10	0.46	579	16.6
	0.61	775	27.9
	0.30	62	0.1
Channel 11	0.46	34	tr.
	0.61	1395	38.3
	0.46	463	18.2
Channel 12	0.46	96	2.3
	0.73	1529	40.9
	0.46	312	9.6
Channel 13	0.46	127	tr.
	0.73	1347	33.2
	0.46	302	9.4
Channel 14	0.46	137	5.6
	0.67	1608	50.3
	0.46	878	25.6

	Width (m)	Silver (g/t)	Lead (%)
Channel 15	0.46	319	8.2
	0.46	1581	39.1
	0.46	199	5.4
Channel 16	0.61	82	tr.
	0.46	782	21.6
	0.30	24	tr.
Channel 17	0.61	103	2.3
	0.76	1701	41.8
	0.61	137	8.9
Channel 18	0.61	48	tr.
	0.52	1395	36.9
	0.91	285	11.3
Channel 19	0.15	603	5.4
	0.30	1810	44.6
	0.30	1210	30.8
	0.30	981	28.0
	0.61	1303	38.9
Channel 20	0.61	99	2.1
	0.91	888	19.2
	0.30	257	10.0
Channel 21	0.46	10	tr.
	1.22	261	7.2
	0.61	21	tr.
Channel 22	0.61	3	tr.
	1.07	110	2.4
	1.22	7	tr.
	0.61	10	tr.
	0.46	10	tr.
Channel 23	0.61	9	tr.
	1.07	182	4.2
	0.61	8	tr.
Channel 24	1.22	38	tr.
	0.91	288	7.5
	1.22	48	tr.

DRILL RESULTS

	From (m)	To (m)	Interval (m)	Recovery (m/%)	Silver (g/t)	Lead (%)
S-1	Hole lost					
S-2	40.84	41.45	0.61	0.05 / 8	1035	46.7
	42.37	43.28	0.91	0.30 / 33	182	6.5
	44.65	45.11	0.46	0.23 / 50	27	0.6
	45.11	46.63	1.52	0.61 / 40	34	0.1
S-3	38.25	39.01	0.76	0.38 / 50	230	6.0
	39.01	40.14	1.13	0.82 / 73	891	23.2
S-4	37.80	38.40	0.60	0.24 / 40	487	5.7
S-5	33.83	34.44	0.61	0.05 / 8	1735	37.1
	34.44	35.36	0.92	0.91 / 100	41	1.0
	35.36	36.27	0.91	0.91 / 100	185	2.5
	36.27	37.19	0.92	0.58 / 64	34	0.7

STRATEGIC METALS LTD.

FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TRENCH SAMPLING

STUMP PROPERTY

0 10 20 30 40 50 m

FILE: ...2007/STUMP/TRENCH.DWG

DATE: APRIL 2007

The potential access routes are generally snowfree from mid June to early September but some snowdrifts would have to be plowed in late May so that north-facing stretches of the road could dry and be passable.

GEOLOGICAL OBSERVATIONS AND ECONOMIC EVALUATION

The trenches were examined by the author in 2000 and 2006. Most vein exposures are now buried by a thin layer of soil that has washed into the trenches. The mineralization and gangue have weathered significantly since they were first exposed and in most areas are now quite friable at surface. A number of observations were made regarding geology and its potential impact on small-scale, high grade mining.

1. Although the vein dips into the hillside, the dip is relatively steep and the slope of the hill is relatively shallow for at least 100 m into the hanging wall, which means that topography will negatively but not seriously affect the stripping ratio.

2. The dolomite wallrocks appear to be relatively competent, which and should allow for steep pit walls, but they may have to be blasted.

3. The vein contacts are sharp, which should minimize dilution.

4. The galena is fine grained and is intergrown with dark weathering dolomite, which would make visual grade determination somewhat unreliable at surface and limit the effectiveness of hand sorting to increase grade.

5. Where mineral banding is observed in vein specimens, the rocks tend to break randomly, not along the bands, which would make selective mechanized mining difficult and limit the probable effectiveness of hand sorting.

6. The best mineralized parts of the vein have thickness and grade continuity that suggest excellent potential for rapid mining, provided a practical method is available to concentrate the better grade material.

7. Unfortunately, run-of-mine grades would be unlikely to exceed 20% lead and about 760 g/t silver.

8. If selective mining were done to segregate well mineralized vein from lower grade vein and barren wall rock, the grade could increase to about 40% lead and 1400 g/t silver; but mining rates would suffer and lower grade material would be lost.

9. Based on results of analyses done on chips collected in 2000 from a number of well mineralized vein fragments, no seriously detrimental components were identified. The sample returned 2060 g/t silver and 56.6% lead with relatively low antimony (2590 ppm), copper (3340 ppm) and arsenic (470 ppm). No other detrimental elements were identified that would likely result in smelter penalties. The zinc content was negligible, only 50 ppm.

10. Assuming that dimensions and grades observed in the better parts of the vein at surface persist to a depth of 15 m down dip and that the average density of the vein is 3.5 t/m^3, the

A-1 vein could yield about 15,500 tonnes of material at an average grade of about 20% lead and 760 g/t silver. This tonnage, which assumes no wallrock dilution, could contain about 3100 tonnes of lead and 11,780 kg (approx. 378,700 oz.) of silver. At current prices ($1925 US/t. for lead and $13.30 US/oz for silver) and exchange rates ($1 CND= $0.863 US), the insitu gross metal value would be about $12,750,000 CND. (Note: the preceding calculations are approximations based on certain assumptions. The author has extensive experience in small-scale, high grade mining of silver-lead veins in the Keno Hill District of Yukon but he is not a profession geologist or engineer. These calculations are not a rigorous or resource estimation and do not comply with NI 43-101. They are meant for discussion purposed only).

METALLURGICAL TESTING

Samples collected in 2006 from old trenches along the surface trace of the A-1 vein. The samples were visually examined and subdivided into oxidized ore (characterized by somewhat friable gangue and galena that is rimmed or partial replacement by secondary lead oxide or carbonate minerals) and unoxidized ore (compact gangue with little or no oxidation of galena grains). The oxidized ore samples were then combined to form Composite A and the unoxidized ore samples were combined to form Composite B. Composite A had a head grade of 38.8 % lead and 1429 g/t silver and Composite B had a head grade of 36.7 % lead and 1393 g/t silver. The test program involved crushing the samples to minus 1/4″ (0.635 cm) followed by gravity concentration using a jig mineral separator. Appendix II contains a report describing processes used and results obtained.

For Composite A, 34.4% of the material reported to a concentrated grading 55.2% lead and 1738 g/t silver. This represents 49.2% of the total lead and 41.6% of the silver. For Composite B, 40.1 % of the material reported to the concentrate grading 53.3% lead and 1673 g/t silver. This represents 56% of the total lead and 49.7% of the silver. At the end of the tests about 39 % of the material from each composite was still on the bed of the jig. The tails from Composite A comprised about 27 % of the initial sample and contained 17.4 % of the lead and 20.8 % of the silver. Tails from Composite B comprised 21.5 % of the initial sample and contained only 8.2 % of the lead and 14.0% of the silver.

CONCLUSIONS AND RECOMMENDATIONS

The Stump property hosts a small but potentially significant amount of silver-lead mineralization that is well suited for small scale open pit mining. Initial metallurgical tests have shown that jigging of vein material crushed to – ¼ inch can yield an upgraded concentrate and that unoxidized material (which is expected to comprise the majority of material that could be mined) responded better than oxidized material. If the vein material was crushed finer (-1/8 inch), better mineral separation might be obtained and consequently less of the metals would be lost in tails. Therefore, more tests are recommended. They should involve a finer crush and include lower grade (10 to 20% lead) material from moderately to weakly mineralized parts of the veins.

A bulldozer equipped with a small backhoe should be used to reopen the road and better expose the veins in the old trenches. The exposure should then be systematically sampled and composites from that material used for additional metallurgical tests. Enquiries should also be made to Yukon Government regarding small-scale mining permits and data required for the permitting process. If possible this data should be collected during the sampling program.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED.

W.D. Eaton, B.Sc. Geology

APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, W. Douglas Eaton, geologist, with business address in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in North Vancouver, British Columbia, hereby declare that:

1. I graduated from the University of British Columbia in 1980 with a B.Sc. majoring in Geological Sciences.

2. From 1971 to present, I have been actively engaged in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981, became a partner in Archer, Cathro & Associates (1981) Limited.

3. In 1983, 1984 and 1989, I participated in and supervised profitable small-scale, high grade mining operations on mineral claims leased from United Keno Hill Mines Ltd. in central Yukon, and in 1999. I supervised a similar operation on behalf of Nordac Resources Ltd. at its Blue Heaven property in southern Yukon.

4. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

W. Douglas Eaton, B.Sc. Geology

APPENDIX II

METALLURGICAL REPORT BY SGS LAKEFIELD RESEARCH LIMITED

An Investigation into

THE RECOVERY OF LEAD FROM THE SILVER VEIN DEPOSIT

prepared for

ARCHER CATHRO & ASSOC.

Project 11408-001 - Report No. 1
March 12, 2007

NOTE:
This report refers to the samples as received.

SGS Lakefield Research Limited | P.O. Box 4300, 185 Concession Street, Lakefield, Ontario, Canada K0L 2H0
Tel: (705) 652-2000 Fax: (705) 652-6365 www.met.sgs..com www.ca.sgs.com
Member of the SGS Group (SGS SA)

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Abstract

Two lead bearing samples from Archer Cathro & Assoc. Silver Vein project located in the Yukon Territory, were examined at SGS Minerals Services laboratory in Lakefield. Two composites were formed and studied from the material sent to Lakefield. "Composite A" comprised of oxidised ore and "Composite B" comprised of un-oxidised ore. The test program included crushing and gravity concentration using a jig mineral separator.

Through the metallurgical process, Composite A and Composite B gravity concentrates were up-graded to 55.2% and 53.3% lead content, while separating sulphides from siderite at a particle size range of ¼ inch.

Introduction

Archer Cathro & Assoc. are currently examining the development of their Silver Vein deposit in the Yukon Territory. SGS Minerals Services were requested to undertake a metallurgical test program to evaluate the response of two samples to a jig process to separate the sulphides from siderite at a particle size range of 1/8 to 1/4 inch and produce a lead concentrate grading of 45 to 55% Pb. The two samples were to be comprised of an oxidized and an un-oxidized composite.

The results were forwarded to Mr. Doug Eaton of Archer Cathro & Assoc. as they became available via e-mail.

Peter DiLauro
Project Metallurgist

Inna Dymov, P. Eng.
Senior Metallurgist

Experimental work by: Peter DiLauro
Report preparation by: Peter DiLauro

Testwork Summary

1. Sample Receipt and Description

1.1. Sample Preparation

On September 27th, 2006, ore samples for metallurgical testing were received from Archer Cathro & Assoc. The shipment arrived in five rice bags (LR receipt number LR2602955).

The samples were blended into two composites according to the visible degree of sample oxidation. The oxidized material was blended together and identified as "Composite A" and the un-oxidized as "Composite B". The sample and weight make-up of each composite is found in Table 1. Each Composite was staged crushed to 1/4 inch and then split into 2kg charges for testwork.

Table 1 – Sample Compositing

Composite	Rice Bag	Bag ID	Sample	Weight kg
Composite A (Oxidized)	3 of 5	Stump C107 905	Sample loc. 2	1.97
	3 of 5	Stump C107 905	loc. 2	6.71
	3 of 5	Stump C107 905	HW Sample loc. 3	2.88
	4 of 5	Stump C107 906	loc. 4 U. vein	6.28
	5 of 5	Stump C107 907	loc. 4 L. vein	12.56
			Total Weight	30.40
Composite B (un-oxidized)	1 of 5	Stump C107 901	Sample 10C	10.90
	2 of 5	Stump C107 902	10	14.05
			Total Weight	24.94

1.2. Chemical Analysis

The chemical analyses for Ag, Pb, Fe, S and the Whole Rock analysis of the two composites prepared are shown in Table 2 and Table 3.

Table 2 – Head Analysis

Sample	Assays, g/t, %			
	Ag g/t	Pb %	Fe %	S %
Composite A (oxidized)	1429	38.8	15.8	6.86
Composite B (un-oxidized)	1393	36.7	18.3	9.19

Table 3 – Whole Rock Analysis

Sample	Whole Rock Analysis												
	SiO_2 %	Al_2O_3 %	MgO %	CaO %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	V_2O_5 %	LOI %	Sum %
Composite A (oxidized)	12.2	1.9	0.44	0.27	0.07	0.08	0.07	0.06	0.83	0.01	< 0.01	15.1	31.1
Composite B (un-oxidized)	10.9	1.41	0.68	0.14	< 0.05	0.14	0.07	0.06	1.3	< 0.01	< 0.01	15.8	30.5

2. Metallurgical Testing

The metallurgical testing examined the response of two composites in to of gravity separation.

The metallurgical tests performed are discussed in the following section and the details for each test are given in Appendix 1.

2.1. *Gravity Separation*

Gravity separation was evaluated on Composite A (oxidized) and Composite B (un-oxidized). In all, two tests were completed. One preliminary set-up test on each composite was also done to adjust the jig parameters for the tests. Tests on the two composites were completed on 4-kg ore charges. The tests were done using the Denver 4 x 6 inch Simplex Mineral Jig. From the 4kg tests on each composite a concentrate, a tails and a bed sample was obtained. The gravity separation jig conditions are presented in Table 4. Both samples for testing were crushed to a size of ¼ inch. For the test performed on Composite A the concentrate assayed 55.2% Pb, 8.5% Fe and 9.9% S. This compares with the head analysis for this composite of 38.8% Pb, 15.8% Fe and 6.9% S. For the test performed on Composite B the concentrate assayed 53.3% Pb, 11.2% Fe and 11.4% S. This compares with the head analysis for this composite of 36.7% Pb, 18.3% Fe and 9.2% S. The calculated and direct heads agreed closely for both composites. The metallurgical balances for the tests performed can be found in Table 5. Additional assays on the concentrates including whole rock analysis can be found in Table 6. As well, semi-quantative ICP analysis on the tails products from both tests can be found in Table 7.

Table 4 – Gravity Separation Jig Conditions

Sample	Feed Weight kg	Feed Size inch	Water Flow L/min	Screen Size inch	Bedding (Steel Balls) (dia.) inches	Speed spm	Stroke Length inch
Composite A	4.0	1/4	4.0	3/8	1/2	250	1/2
Composite B	4.0	1/4	4.0	3/8	1/2	250	1/2

Table 5 – Gravity Metallurgical Balances

Composite A

Product	Amount g	Assays, g/t, % Pb	Ag	Fe	S	Distribution, % Pb	Ag	Fe	S
Concentrate	1376	55.2	1738	8.5	9.90	49.2	41.6	18.0	51.5
Bed	1535	33.6	1410	19.6	5.82	33.4	37.6	46.3	33.8
Tails	1087	24.7	1098	21.3	3.58	17.4	20.8	35.6	14.7
Head (calc.)	3998	38.6	1438	16.2	6.62	100.0	100.0	100.0	100.0
Head (direct)		38.8	1429	15.8	6.86				

Composite B

Product	Amount g	Assays, g/t, % Pb	Ag	Fe	S	Distribution, % Pb	Ag	Fe	S
Concentrate	1606	53.3	1673	11.2	11.4	56.0	49.7	24.8	51.2
Bed	1532	35.7	1280	19.2	9.48	35.8	36.3	40.6	40.6
Tails	861	14.5	876	29.1	3.44	8.2	14.0	34.6	8.3
Head (calc.)	3999	38.2	1351	18.1	8.95	100.0	100.0	100.0	100.0
Head (direct)		36.7	1393	18.3	9.19				

Table 6– Additional Concentrate Assays

Sample	Whole Rock Analysis SiO_2 %	Al_2O_3 %	MgO %	CaO %	Na_2O %	K_2O %	TiO_2 %
Comp. A Conc.	6.04	1.54	0.26	0.06	0.05	0.06	0.06
Comp. B Conc.	5.82	1.17	0.44	0.08	< 0.05	0.09	0.07

Sample	Whole Rock Analysis P_2O_5 %	MnO %	Cr_2O_3 %	V_2O_5 %	LOI %	Sum %
Comp. A Conc.	0.07	0.37	< 0.01	< 0.01	14.4	31.1
Comp. B Conc.	0.05	0.62	0.02	< 0.01	14.0	32.5

Sample	Assays Cu %	As %	Sb %	Hg g/t	Cl g/t	Mg %	C(t) %
Comp. A Conc.	0.24	0.028	0.29	2.1	< 10	0.15	0.98
Comp. B Conc.	0.16	0.060	0.26	1.7	< 10	0.24	1.34

Table 7 – Tails ICP Analysis

Sample	Semi-Quantative ICP Scan, g/t								
	Al	**As**	**Ba**	**Be**	**Bi**	**Ca**	**Cd**	**Co**	**Cr**
Comp. A Tails	14000	680	470	0.78	< 20	4900	< 10	21	15
Comp. B Tails	9900	410	710	0.34	< 20	2800	< 10	26	12
Sample	**Cu**	**K**	**Li**	**Mg**	**Mn**	**Mo**	**Na**	**Ni**	**P**
Comp. A Tails	2100	1400	< 5	3300	13000	< 5	3800	27	410
Comp. B Tails	1300	1700	< 5	4500	24000	< 5	1600	26	280
Sample	**Sb**	**Se**	**Sn**	**Sr**	**Ti**	**Tl**	**V**	**Y**	**Zn**
Comp. A Tails	1200	< 30	28	210	63	< 30	55	7.3	230
Comp. B Tails	960	< 30	< 20	94	24	< 30	25	7.3	230

3. Conclusions and Recommendations

Both Composite A and Composite B responded well to the jig gravity separation. In both cases the concentrates were up-graded in lead content to > 55% while reducing the concentration of iron. However, it must be noted that these were batch tests performed on 4 kg samples. In order to have a greater confidence in the process it is recommended that tests in the future be done on larger samples and they be run in a continuous mode with sample cuts being taken throughout the tests.

Appendix 1

Tests Details

Test: J-1 **Project: 11408-001** Operator: PD Date: Jan. 17/07

Purpose: To separate sulphides from siderate at a particle size range of 1/8 to 1/4 inch and produce a 45 to 55% lead concentrate using a mineral jig.

Procedure: The Jig was started and the parameters were adjusted to the conditions outlined below. The ore was then feed to the Jig via the feed hopper. Two passes were performed. The first pass was to establish a bed and have the Jig at a steady state of operation. Once the feed was exhausted from the first pass the concentrate and the tailing were collected and recombined. They were then feed again to the Jig via the feed hopper. When the second pass was complete the Jig test was ended. A concentrate, a tailing and a bed sample were obtained. All fractions were sent for analysis and weight determinations.

Conditions:

Jig Feed: 4000 g of 1/4 inch Composite A (oxidized)

Jig: 4 x 6 inch Denver Mineral Jig **Water Flowrate:** 4.0 L/min

Screen Size: 3/8 inch screen **Bedding:** 1/2 inch steel balls

Speed: 250 strokes per minute **Stroke Length:** 1/2 inch

Results / Balance:

Product	Amount	Assays, g/t, %				Distribution, %			
	g	Pb	Ag	Fe	S	Pb	Ag	Fe	S
Concentrate	1376	55.2	1738	8.5	9.90	49.2	41.6	18.0	51.5
Bed	1535	33.6	1410	19.6	5.82	33.4	37.6	46.3	33.8
Tails	1087	24.7	1098	21.3	3.58	17.4	20.8	35.6	14.7
Head (calc.)	3998	38.6	1438	16.2	6.62	100.0	100.0	100.0	100.0
Head (direct)		38.8	1429	15.8	6.86				

Additional Assays:

Sample	Whole Rock Analysis												
	SiO2 %	Al2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum %
Concentrate	6.04	1.54	0.26	0.06	0.05	0.06	0.06	0.07	0.37	< 0.01	< 0.01	14.4	31.1

Sample	Assays, %, g/t						
	Cu %	As %	Sb %	Hg g/t	Cl g/t	Mg %	C(t) %
Concentrate	0.24	0.028	0.29	2.1	< 10	0.15	0.98

Sample	Semi-Quantative ICP Scan, g/t								
	Al g/t	As g/t	Ba g/t	Be g/t	Bi g/t	Ca g/t	Cd g/t	Co g/t	Cr g/t
Tails	14000	680	470	0.78	< 20	4900	< 10	21	15
Sample	Cu g/t	K g/t	Li g/t	Mg g/t	Mn g/t	Mo g/t	Na g/t	Ni g/t	P g/t
Tails	2100	1400	< 5	3300	13000	< 5	3800	27	410
Sample	Sb g/t	Se g/t	Sn g/t	Sr g/t	Ti g/t	Tl g/t	V g/t	Y g/t	Zn g/t
Tails	1200	< 30	28	210	63	< 30	55	7.3	230

Test: J-2 **Project:** 11408-001 Operator: PD Date: Jan. 17/07

Purpose: To separate sulphides from siderate at a particle size range of 1/8 to 1/4 inch and produce a 45 to 55% lead concentrate using a mineral jig.

Procedure: The Jig was started and the parameters were adjusted to the conditions outlined below. The ore was then feed to the Jig via the feed hopper. Two passes were performed. The first pass was to establish a bed and have the Jig at a steady state of operation. Once the feed was exhausted from the first pass the concentrate and the tailing were collected and recombined. They were then feed again to the Jig via the feed hopper. When the second pass was complete the Jig test was ended. A concentrate, a tailing and a bed sample were obtained. All fractions were sent for analysis and weight determinations.

Conditions:

Jig Feed: 4000 g of 1/4 inch Composite B (un-oxidized)

Jig: 4 x 6 inch Denver Mineral Jig **Water Flowrate:** 4.0 L/min

Screen Size: 3/8 inch screen **Bedding:** 1/2 inch steel balls

Speed: 250 strokes per minute **Stroke Length:** 1/2 inch

Results / Balance:

Product	Amount	Assays, g/t, %				Distribution, %			
	g	Pb	Ag	Fe	S	Pb	Ag	Fe	S
Concentrate	1606	53.3	1673	11.2	11.4	56.0	49.7	24.8	51.2
Bed	1532	35.7	1280	19.2	9.48	35.8	36.3	40.6	40.6
Tails	861	14.5	876	29.1	3.44	8.2	14.0	34.6	8.3
Head (calc.)	3999	38.2	1351	18.1	8.95	100.0	100.0	100.0	100.0
Head (direct)		36.7	1393	18.3	9.19				

Additional Assays:

Sample	Whole Rock Analysis												
	SiO_2 %	Al_2O_3 %	MgO %	CaO %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	V_2O_5 %	LOI %	Sum %
Concentrate	5.82	1.17	0.44	0.08	< 0.05	0.09	0.07	0.05	0.62	0.02	< 0.01	14.0	32.5

Sample	Assays, %, g/t						
	Cu %	As %	Sb %	Hg g/t	Cl g/t	Mg %	C(t) %
Concentrate	0.16	0.060	0.26	1.7	< 10	0.24	1.34

Sample	Semi-Quantative ICP Scan, g/t								
	Al g/t	As g/t	Ba g/t	Be g/t	Bi g/t	Ca g/t	Cd g/t	Co g/t	Cr g/t
Tails	9900	410	710	0.34	< 20	2800	< 10	26	12
Sample	Cu g/t	K g/t	Li g/t	Mg g/t	Mn g/t	Mo g/t	Na g/t	Ni g/t	P g/t
Tails	1300	1700	< 5	4500	24000	< 5	1600	26	280
Sample	Sb g/t	Se g/t	Sn g/t	Sr g/t	Ti g/t	Tl g/t	V g/t	Y g/t	Zn g/t
Tails	960	< 30	< 20	94	24	< 30	25	7.3	230