ARIS SUMMARY SHEET

District Geologist, Smithers Off Confidential: 92.08.23

ASSESSMENT REPORT 21828 MINING DIVISION: Skeena

PROPERTY: Sulphurets
LOCATION: LAT 56 28 00 LONG 130 13 00
UTM 09 6258470 425035
NTS 104B08E

CAMP: 050 Stewart Camp

CLAIM(S): Tedray 6,Tedray 9,Ed 1
OPERATOR(S): Newhawk Gold Mines
AUTHOR(S): Visagie, D.A.
REPORT YEAR: 1991, 118 Pages
COMMODITIES
SEARCHED FOR: Copper,Gold
KEYWORDS: Jurassic,Hazelton Group,Andesites,Tuffs,Silicification
Quartz veins,Stockworks,Pyrite,Sphalerite,Galena,Tetrahedrite
Electrum,Chalcopyrite,Argentite,Pyragerite,Polybasite
WORK
DONE: Drilling,Geochemical
DIAD 1206.3 m 7 hole(s);BQ
Map(s) - 1; Scale(s) - 1:5000
SAMP 483 sample(s) ;ME
RELATED
REPORTS: 06255,09435,10268,10698,14614,14672,15684,15724,18564
MINFILE: 104B 185,104B 276,104B 301

DRILLING REPORT

SULPHSIDE 2 GROUP

Skeena Mining Division

Latitude: 56° 30'N
Longitude: 130° 15'W
NTS: 104B/9

OWNER: Newhawk Gold Mines Ltd.
Granduc Mines Limited

OPERATOR: Newhawk Gold Mines Ltd.

REPORT BY: Dave Visagie, B.Sc.
October 15, 1991

SU91-410.11

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APPENDICES

1.0 INTRODUCTION

The Sulphside 2 Group is located within the "Golden Triangle" area of northwestern B.C. occurring 60 kilometres north of the village of Stewart. The Group is part of the larger Sulphurets property which is presently being evaluated by Newhawk Gold Mines and Granduc Mines under a joint venture agreement. The Sulphurets property hosts several bulk tonnage gold and/or copper deposits along with high grade gold/silver veins with the Sulphside group hosting several areas of bulk tonnage potential. It is underlain by Hazelton Group volcanics and volcaniclastics that have been intruded by plutons of sub-alkaline composition. Work on the property dates back to 1935 when copper-molybdenum mineralization was located in the vicinity of the Main Copper Zone. Since then it has had various exploration programs completed on it with the main development occurring in the vicinity of the West Zone, located at Brucejack Lake. As part of the 1991 work program seven BQTK sized drill holes totalling 1206.3 metres in length were drilled on two zones; Sulphurets Gold and Main Copper located on the Sulphside 2 Group. All of the core was split resulting in the taking of 470 core samples. The drilling was completed between July 9th and August 18th, 1991. The results indicate that both zones have significant potential to host bulk tonnage copper-gold deposition.

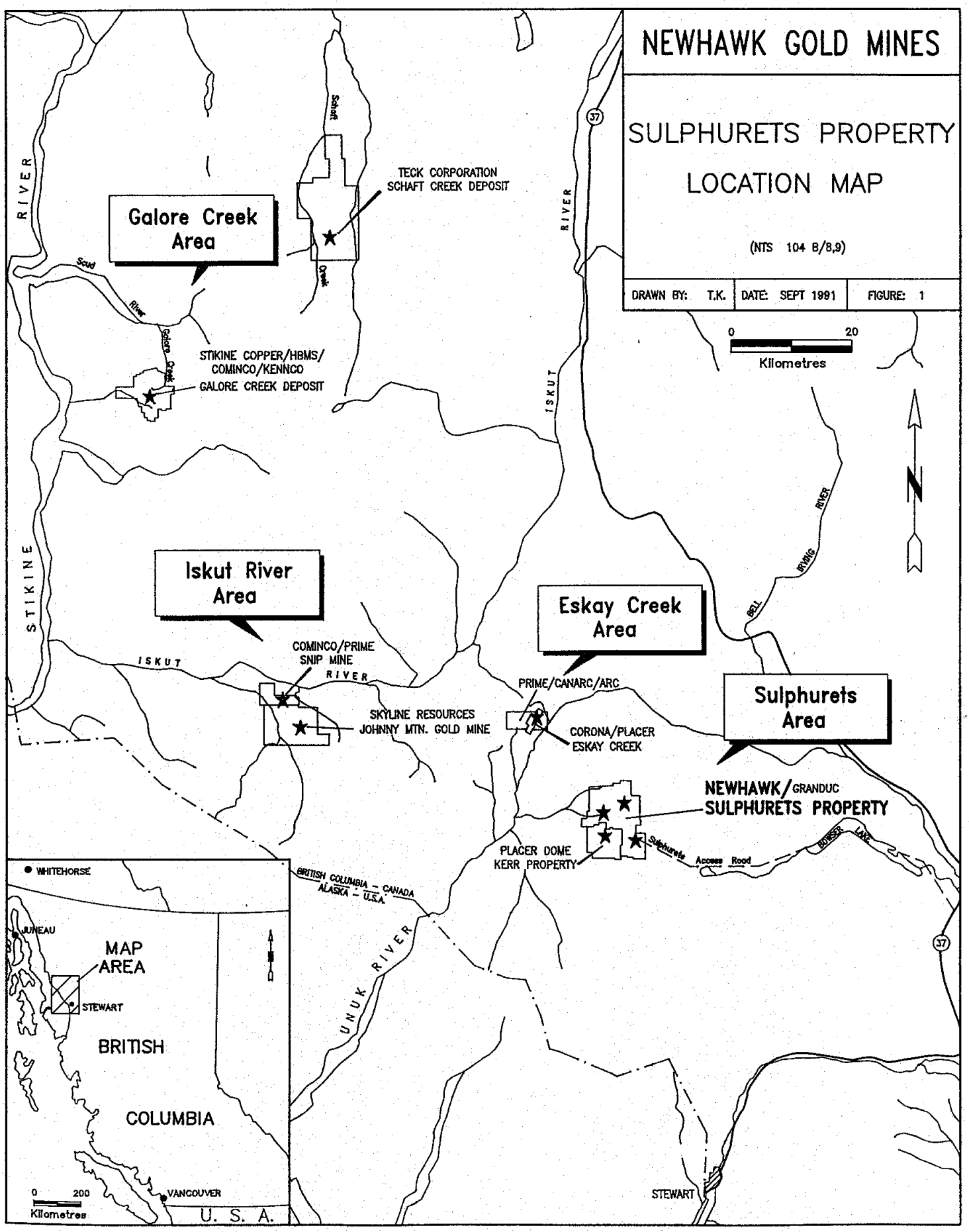
2.0 LOCATION AND ACCESS

The property is located within the Coast Range mountains of northwestern B.C., some 60 kilometres northwest of the village of Stewart approximately 920 km northwest of Vancouver, B.C., being centred at 130° 15'W, 56° 30'N on NTS sheet 104B/9.

Access during the early summer is by helicopter from Stewart. During the later part of the summer, supplies were mobilized to the Tide Lake airstrip 35 kilometres south of the property and flown in using a helicopter. During major summer programs, access is by barge along Bowser Lake, then by road along the Bowser River with the final access to the camp being by tracked vehicle 16 km up the Knipple Glacier.

3.0 PHYSIOGRAPHY AND VEGETATION

The topography of the Sulphurets property is typical of the Coast Range Mountains with steep glaciated U-shaped valleys being the norm. Elevations range from 670 metres at the foot of Mitchell Glacier to in excess of 1830 metres on some of the mountain ranges. Extensive ice-fields are common throughout the property.


NEWHAWK GOLD MINES
SULPHURETS PROPERTY
LOCATION MAP
(NTS 104 B/8,9)
DRAWN BY: T.K.
DATE: SEPT 1991
FIGURE: 1
0
20
Kilometres
Galore Creek Area
TECK CORPORATION
SCHAFT CREEK DEPOSIT
Schaft Creek
Scud River
Galore Creek
STIKINE COPPER/HBMS/
COMINCO/KENNCO
GALORE CREEK DEPOSIT
STIKINE RIVER
ISKUT RIVER
Iskut River Area
COMINCO/PRIME
SNIP MINE
ISKUT RIVER
SKYLINE RESOURCES
JOHNNY MTN. GOLD MINE
Eskay Creek Area
PRIME/CANARC/ARC
CORONA/PLACER
ESKAY CREEK
Sulphurets Area
BELL IRVING RIVER
NEWHAWK/GRANDUC
SULPHURETS PROPERTY
PLACER DOME
KERR PROPERTY
Sulphurets Access Road
BOWSER LAKE
BRITISH COLUMBIA – CANADA
ALASKA – U.S.A.
UNUK RIVER
STEWART
WHITEHORSE
JUNEAU
MAP AREA
STEWART
BRITISH
COLUMBIA
VANCOUVER
U. S. A.
0
200
Kilometres

Winters tend to be severe with extensive snowfall and winds while summers tend to be cool and wet. Most of the snowfall occurs between mid-February and mid-April.

Vegetation throughout the property is varied with spruce and fir trees occurring at the lower elevations while lichens, mosses and scrub timber dominate the uplands.

4.0 PROPERTY HISTORY

Exploration in the area dates back to the 1880's when placer gold was located in Sulphurets Creek. In 1935, copper-molybdenum mineralization was located in the vicinity of the Main Copper showing. Until 1959 the property was intermittently evaluated. In 1959, gold and silver values were located in the Brucejack Lake area. Granduc Mines, as a result of this previous work, staked the main claim area in 1960. Follow-up work included an airborne magnetometer survey, a few ground follow-up magnetometer lines and reconnaissance geology. As a result, copper mineralization was located along the Mitchell-Sulphurets Ridge with gold and silver values were discovered at the base of the Iron Cap area.

In 1961, Granduc drilled 224 metres of packsack core in 32 holes at four locations to test the extent of the known copper showings. Additional prospecting resulted in the discovery of gold/silver mineralization in the Hanging Glacier area and molybdenite on the south side of Mitchell Glacier. In 1962, two diamond drill holes, totalling 611 metres in length, tested molybdenum mineralization in the Quartz Stockwork Zone. In 1968, Granduc drilled 1016 metres in six holes on the Main Copper Zone and mapped the area below the Hanging Glacier. In 1970, plane table mapping was carried out from the Hanging Glacier to the south edge of the Mitchell Glacier. Granduc in 1974/75 carried out bedrock geochemical sampling and geological reconnaissance and prospecting throughout much of the property.

In 1980, Esso Minerals optioned the property from Granduc and subsequently completed between then and 1985, an extensive program consisting of mapping, trenching, geochemical sampling that resulted in the discovery of several showings including Snowfields, Shore, West and Galena. Esso surrendered its interest in 1985.

In 1985, Newhawk Gold Mines optioned the property from Granduc. Since then it has completed work on the Snowfields, Mitchell, Golden Marmot, Sulphurets Gold, Main Copper zones along with lesser known targets.

5.0 CLAIM STATUS

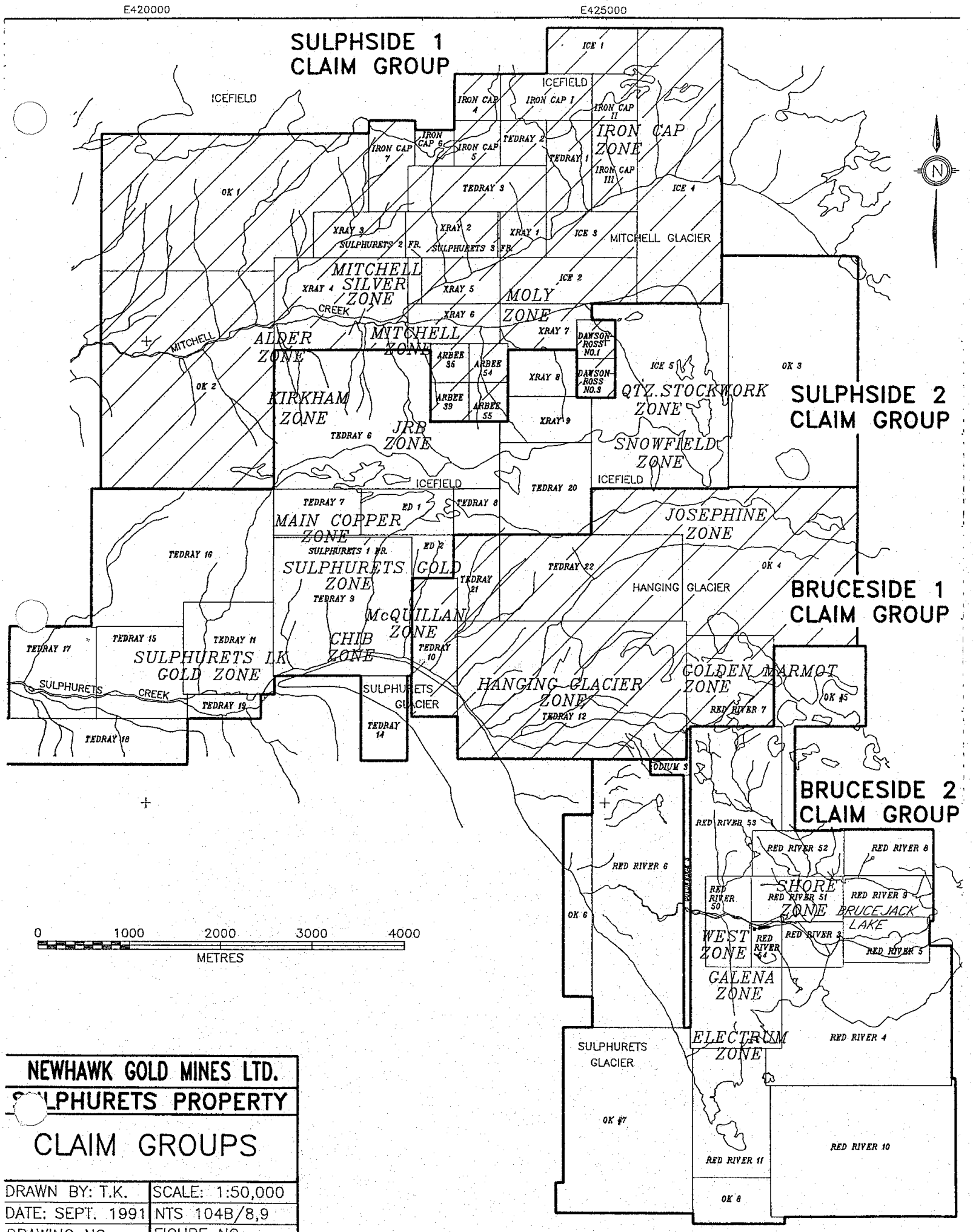
All claims comprising the Sulphurets property occur within the Skeena Mining Division and are in good standing. The property is held under a joint venture agreement between Granduc Mines Limited and Newhawk Gold Mines Ltd. with Newhawk acting as operator. For assessment purposes, the property has been divided into four groups; Sulphside 1, Sulphside 2, Bruceside 1 and Bruceside 2 with this report focusing on the Sulphside 2 Group.

SULPHSIDE 2 GROUP

Name of Claim	Title Number	Number of Units
Ice 5	250988	12
Ed No. 1	250377	2
Ed No. 2	250378	1
Sulphurets 1 Fr.	250911	1
Tedray No. 6	250382	15
Tedray No. 7	250383	2
Tedray No. 8	250384	1
Xray 8	250824	2
Xray 9	250825	2
Tedray 20	250989	4
OK# 3	251282	15
Tedray No. 9	250385	9
Tedray No. 11	250387	4
Tedray 14	250890	2
Tedray 15	250915	4
Tedray 16	250933	12
Tedray 17	250934	4
Tedray 18	250935	4
Tedray 19	250936	2

6.0 REGIONAL GEOLOGY

The Sulphurets property is underlain by a thick sequence of Lower to Middle Jurassic volcanic and sedimentary rocks of the Hazelton Group that have been intruded by plutons of sub-alkaline composition. This complex has been folded and faulted and is now elongated in a northerly direction. It is bounded to the west by the Coast Crystalline complex and to the east by Bowser Basin sediments.



NEWHAWK GOLD MINES LTD.

SULPHURETS PROPERTY

CLAIM GROUPS

DRAWN BY: T.K.	SCALE: 1:50,000
DATE: SEPT. 1991	NTS 104B/8,9
DRAWING NO:	FIGURE NO:

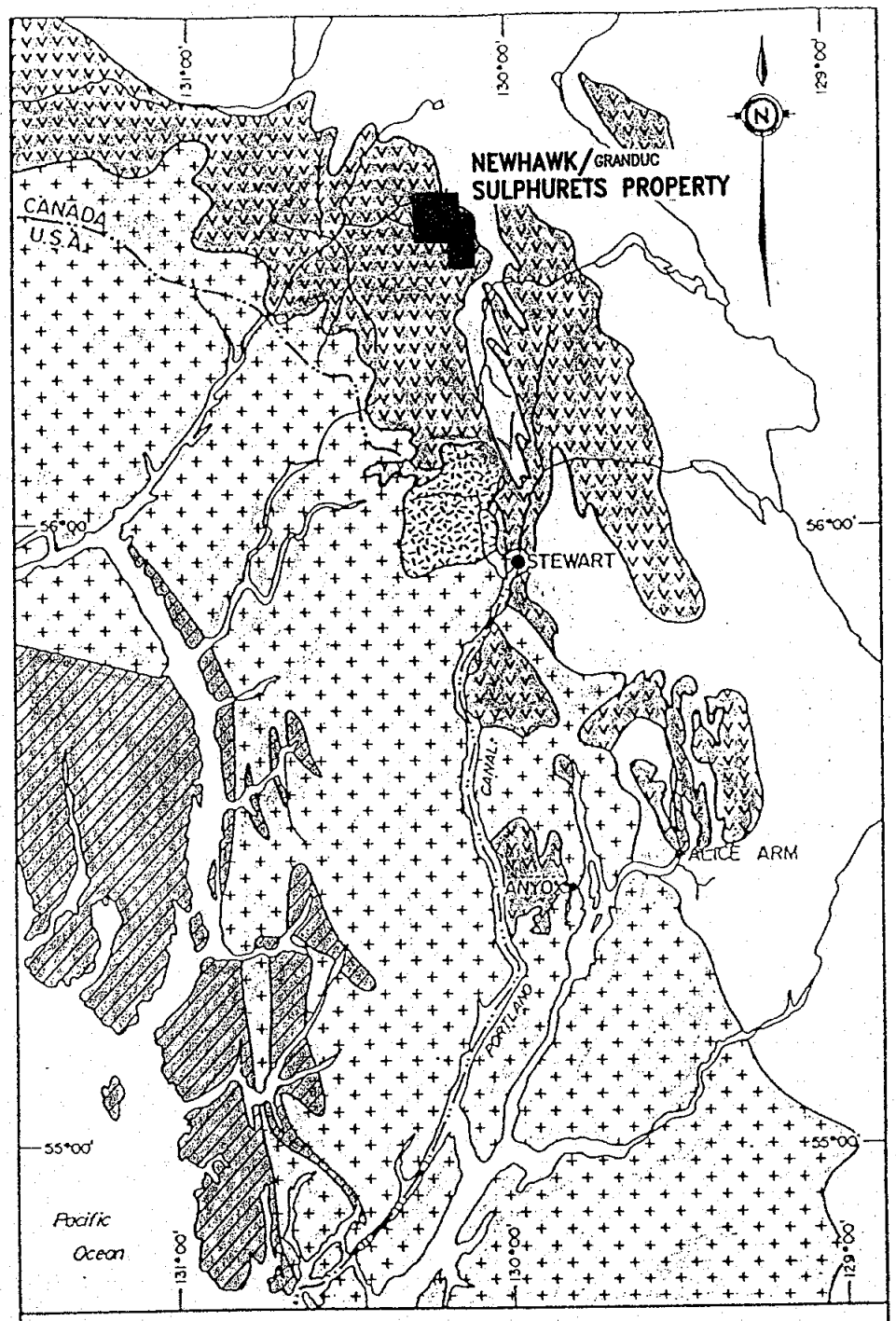
The oldest rocks on the property are Lower Sediments, reported to have a minimum thickness of 1500 metres, consisting mainly of argillites, siltstone and cherts along with minor amounts of wackes, arenites, tuffs and trachytes. Younger pyroclastic rocks, that range from fine tuff to breccias, are evidence of a major volcanic event in the area. These sometimes contain blocks greater than one metre in size and occur in a northerly trending elongate zone through the central part of the area. Most of the pyroclastics are of andesitic composition and have been subjected to varying degrees of alteration. These altered tuffs and breccias are host for most of the vein deposits in the Stewart area and are the most favourable host rocks on the Sulphurets property. The Upper Sediments consist of an extensive sequence of black shales and argillites that are similar in character to the Lower Sediments.

The volcanic-sedimentary sequence is cut by numerous elongated, sub-parallel northerly trending, late stage intrusive plutons that are probably of Mid-Jurassic age. These intrusives range from diorite to granite in composition and appear to be sub-alkaline. The emplacement of these plutons appears to be related to faulting and associated intense alteration, sillicification and mineralization. Sericite and pyrite are the most abundant alteration minerals with other assemblages locally dominated by-feldspar, chlorite and propyllitic minerals. Some clay alteration minerals have also been recognized in the Brucejack Lake Zones. Porphyry copper-gold mineralization occurs in the northern and central parts of the property and is often associated with K-spar and sericitic alteration.

Structurally controlled gold/silver bearing veins occur mainly in volcanic rocks within one kilometre wide zones of intense predominantly sericitic alteration. The veins consist of quartz, minor calcite, and trace to 20% sulphide minerals. These range from simple single veins to complex vein zones and stockworks. Sulphides within these veins consist of pyrite, sphalerite, galena, tetrahedrite, electrum and chalcopyrite along with argentite, pyragerite and polybasite.

7.0 1991 WORK PROGRAM

As part of the evaluation of the Sulphside 2 group, seven BQTK drill holes totalling 1206.3 metres were drilled. The drilling was completed by F. Boisvenu Drilling, Delta, B.C. using a JKS 300 drill. Newhawk's camp at Brucejack Lake was used for housing the crew. The mobilization of the crew and drill to the sites of interest was completed using a chartered helicopter from Vancouver Island Helicopters. Weather conditions hampered some of the drill moves and the mobilization of the crew to the drill, resulting in additional costs being incurred. All assaying was completed by Eco-Tech Laboratories, Kamloops, B.C.



LEGEND

- LOWER - MIDDLE JURASSIC BOWSER ASSEMBLAGE
- UPPER TRIASSIC - LOWER JURASSIC TAKLA & HAZELTON ASSEMBLAGE (STEWART COMPLEX)
- WRANGELL METAMORPHIC BELT (UNDEFINED AGE)
- UPPER TRIASSIC - LOWER JURASSIC TEXAS CREEK INTRUSION
- CRETACEOUS - TERTIARY COAST RANGE INTRUSIONS

REGIONAL GEOLOGY OF THE STEWART - ANYOX AREA

20 10 0 20 40 60 kilometres

Figure 3 (after Dykes et al, 1988)

7.1 Drilling

Throughout the length of the drill program two ten hour shifts were employed daily to complete the holes. All sites were prepared by Boisvenu's crews. Upon completion of the drilling the collar was surveyed by Newhawk personnel.

The core was flown daily to the Brucejack campsite to be logged and split. In addition all samples were crushed and pulverized on site prior to being sent out for analysis. The drill core is presently stored at the Brucejack campsite. All drill logs are located in Appendix 1 while the sample results are listed in Appendix 2.

7.2 Assaying

All drill core was assayed for gold by fire assay using a one assay ton subsample. Selected core was either assayed or geochemed for copper. In addition, all of the core was sampled by Inductively Coupled Plasma (I.C.P.). The following is an outline of the procedure used for the preparation and analysis of the samples:

Samples dried (if necessary), crushed or sieved to pulp size and pulverized to approximately -150 mesh, then rolled to ensure a homogenous sample.

For the 30 element I.C.P. analysis, a 10 gram sample is digested with 3 ml of 3:1:3 nitric acid to hydrochloric acid to water at 90^{0} C for 1.5 hours. The sample is then diluted to 20 ml with demineralized water and analyzed. The leach is partial for Al, B, Ba, Cr, Fe, K, Mg, Mn, Na, Sb, Ti, U, and W.

For gold analysis a one assay ton is preconcentrated by conventional fire assay. The resulting Ag prill is digested in 3 ml 30% HNO_3, anything insoluble is dissolved using 3 ml concentrated HCl. The resulting solution is diluted to 10 ml and analyzed by atomic absorption. Each set of forty samples has one random duplicate and a certified assay standard.

Any samples with a greater than one gram per tonne are re-run automatically to verify the first set of results and to determine if a nugget effect exists.

Samples having gold values exceeding five grams per tonne are normally re-cut from the reject and screened for "metallics".

For copper geochemistry a 0.500 gram sample is digested in 20 ml HNO_3 for 20 minutes or until all NO_3 fumes have disappeared. The digestion is then cooled, 10 ml HCl are added and digested for 30 minutes The digestion is again cooled and another 50 ml HCl are added and further digested for one hour. When this digestion has cooled to room temperature it is bulked to 200 ml mixed, centrifuged and analyzed by atomic absorption.

8.0 DRILL RESULTS

Two zones of interest were drilled on the Sulphside 2 group during the 1991 field season: Sulphurets Gold and Main Copper.

8.1 Sulphurets Gold Zone

Previous mapping, sampling and drilling have shown gold and copper mineralization to occur in thrust sheets cutting andesitic and felsic tuffs and flows. Copper mineralization appears to be related to an altered feldspar porphyry intrusive that appears to be dioritic in composition. Associated with the copper gold values ranging up to .040 opt occur. Alteration consists of variable silicification, K-spar, chlorite, sericite, biotite and pyrite. The zone has been traced intermittently in outcrop and by drilling for over a one kilometre distance. Five drill holes totalling 1162.1 metres were drilled in the zone. The following is a summary of the results for the 1991 program.

Hole	Length	From	To	Int	Au opt	Cu%
S91-388	220.0	52.9	74.4	21.5	.023	.230
		74.4	101.3	26.9	.013	.760
		101.3	167.1	65.8	.015	.350
		213.6	219.6	6.0	.027	.220
	or	74.4	167.1	92.7	.014	.466
S91-389	222.0	71.5	92.5	21.4	.020	.678
		92.5	120.2	28.2	.007	.266
		120.7	153.6	32.9	.023	.621
		153.6	166.7	13.1	.015	.604
	or	71.1	166.7	95.6	.016	.530
S91-390	301.0	138.5	171.5	33.0	.013	.350
		171.5	180.5	9.0	.018	.150
		206.0	224.0	18.0	.031	.165
		283.0	294.4	11.4	.019	.050
S91-391	206.7	9.0	15.0	6.0	.030	.030
		28.9	53.4	25.5	.028	.010
		82.9	146.9	64.3	.014	insig
		146.9	179.4	32.5	.028	.080
		179.4	206.7	27.4	.020	.040
S91-392	210.4	7.6	20.1	14.5	.024	.141
		39.2	55.5	16.3	.022	.290
		165.5	201.2	25.7	.020	.430
		201.2	210.4	9.4	.005	.350

Incorporating the 1991 drill results with those of previous programs shows the Sulphurets Gold Zone to be a gently southwest dipping copper-gold bearing zone that has been faulted into large panels by a series of faults. In part the fault blocks are rotated. To the southwest the blocks appear to be down dropped.

8.2 Main Copper Zone

Mapping and sampling along with limited trenching and drilling were completed by other companies prior to Newhawk becoming involved in the Sulphurets property. Previous work has shown the Main copper Zone to occur within the upper plate of the Sulphurets Fault near the top of Sulphurets Ridge. Mapping and sampling have shown the zone to be hosted by propyllitically altered and sheared hornblende-feldspar porphyry intrusive and andesitic volcanics. Pyrite along with up to 2% chalcopyrite are the dominant sulphides. In general rock chip values are low (.2-.4% Cu) with anomalous gold in the <.010-.020 opt Au range. The ground in the vicinity of the Main Copper Zone is highly fractured and there appears to be surface depletion of copper.

Two drill holes totalling 144.2 metres in length were located so as to test the zone in an area of elevated copper-gold values. Both holes failed to reach their targeted depth due to severe ground conditions. The drill core throughout both holes is extensively fractured with the sulphides being leached to approximately 30 metres below surface. The following is a summary of the drill results.

Hole	Length	From	To	Int	Au opt	Cu%
S91-397	30.5	4.6	30.5	25.9	.003	.23
S91-398	113.7	12.1	46.2	34.1	.011	.54

Although both holes failed to reach their targeted depth, they did show that the Main Copper Zone does contain significant intersections of copper and gold.

9.0 SUMMARY AND CONCLUSIONS

The Sulphside 2 group hosts at least two areas of porphyry style copper-gold deposition: Sulphurets Gold and Main Copper. The Sulphurets Gold Zone is underlain by andesitic to felsic tuffs that have been intruded in part by a highly altered intrusive. Mineralization consisting of pyrite and chalcopyrite occurs throughout the zone. Gold is commonly found in association with chalcopyrite. Alteration consists of quartz, sericite, pyrite along with K-spar and on occasion biotite. The zone has been traced for over one kilometre with thicknesses of up to 100 metres.

Along strike and dip the zone is faulted into large panels. The zone is open to the along strike to the northeast and down-dip.

Copper-gold mineralization on the Main Copper Zone occurs within brecciated intrusive and andesitic tuffs. Chalcopyrite occurs as disseminations and along fracture fillings. Malachite and azurite are common throughout the upper level of the zone. Extensive, near surface fracturing occurs throughout both holes. The zone is open in all directions.

10.0 RECOMMENDATIONS

It is recommended that additional drilling be completed on both zones with the purpose of further defining their limits and grade.

11.0 COST STATEMENT - SULPHSIDE 2 GROUP

1. Labour (73 man-days) **Total: $ 15,666.00**

i) Mark Tindal (Corona - Senior Geologist, Core Logging)
July 16 - August 4, August 13 - 17
25 days @ $300/day

ii) Adrian Maarkus (Core Splitter)
July 16 - August 4, August 13-17
25 days @ $137/day

iii) Bernie Elliot (Sample Prep)
1/2 (July 16 - August 4), August 13 - August 18
13 days @ $137/day

iv) Dave Visagie (Project Geologist)
July 15, 17, 19, 20, 21, 22, 24; August 13, 14, 17
10 days @ $295/day

2. Transportation **Total: $ 31,954.00**

a) Helicopter
i) Bell 206

July 16	5.7 hrs	July 21	1.6 hrs
July 17	2.3 hrs	July 22	3.0 hrs
July 18	2.0 hrs	July 23	2.0 hrs
July 19	3.6 hrs	July 24	2.0 hrs
July 20	0.8 hrs		

23 hrs x $698/hr $16,054.00

ii) Hughes 500D

July 25	-	August 1	1.4 hrs
July 26	2.0 hrs	August 2	2.0 hrs
July 27	2.0 hrs	August 3	2.0 hrs
July 28	1.2 hrs	August 4	2.5 hrs
July 29	1.1 hrs	August 13	2.0 hrs
July 30	1.1 hrs	August 14	0.6 hrs
July 31	1.1 hrs	August 15	1.0 hrs
		August 16	0.6 hrs
		August 17	0.6 hrs

212 hours x $750/hr $15,900.00

3. Room & Board **Total: $ 17,300.00**

i) Drillers: 25 days x 4 men x $100/day $10,000
ii) Labour: 73 man-days x $100/day $7,300

4.	**Consumables** Office supplies, plastic & nylon bags, dymo, etc.	**Total: $ 1,000.00**
5.	**Communication** Spacetel, B.C. Tel	**Total: $ 4,000.00**
6.	**Equipment Rental** Surveying instruments 4 days x $50/day	**Total: $ 200.00**
7.	**Sample shipping, freighting of goods**	**Total: $ 500.00**
8.	**Expediting**	**Total: $ 1,000.00**
9.	**Drill cost**	**Total: $ 88,923.50**

i) 2973 ft @ $17/ft	$50,541.00
ii) 1312 ft @ $18.75/ft	$24,600.00
iii) 384 standby @ $25/hr	$ 9,600.00
iv) 153 machine hrs @ $15/hr	$ 2,295.00
v) Tropari rental 3/4 x $1000/mo	$ 750.00
vi) Core boxes 175 boxes x $650/box	$ 1,137.50

10.	**Assaying** 483 samples x $11.60/sample (AVg)	**Total: $ 5,602.80**
11.	**Report** Includes drafting, typing, etc.	**Total: $ 3,000.00**
	SUBTOTAL:	$169,146.30
12.	**Management Fee 10%**	**$ 16,914.60**
	TOTAL:	**$186,060.93**

12.0 STATEMENT OF QUALIFICATIONS

I, D.A. Visagie of 860 - 625 Howe Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a Bachelor of Science Degree, majoring in Geology, in 1976.

2. I have been steadily employed in the mining industry since then and have since January 1990 been employed by Northair Mines Ltd. as Senior Geologist.

3. The work undertaken on the Sulphside 2 Group was under my supervision.

Dated at Vancouver, British Columbia, this 15th day of October, 1991.

Dave Visagie

APPENDICES

Appendix 1 Drill Logs

NEWHAWK GOLD MINES LTD.

Diamond Drill Hole Record

Project: SULFSIDE

DEPTH	BEARING	DIP	SURVEY TYPE			
COLLAR	–	-90	Compass	PROPERTY: Sulphurets	LENGTH: 222 m	HOLE NO.: 591-388
87.2m	-	-90	Acid	CLAIM: Tedray 9	CORE SIZE: B.Q	SHEET NO. 1 of 90
222 m	–	-90	Tropari	LATITUDE: 6262839.184	RECOVERY: >95%	LOGGED BY: M. Tindall
				DEPARTURE: 422544.944	STARTED: 7/16/91	SAMPLED BY: B. Elliot
				ELEVATION: 1541.253m	COMPLETED: 7/19/91	PURPOSE: Test Sulph Au Zone

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr		Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu ppm	Pb %	Zn %	Core Data RQD %	Run	Recovery %
0	3.7		OVERBURDEN/CASING																													
																															~	90
.7	74.4		Mafic Volcanics / Andesite																												~	45
			DK green, f gr, equigran																												~	100
			mafic volc vk w many																													
			narrow contorted, plag, qtz																													
			filled tension fracts @ all																													
			angles to C.A. minor calcite																													
			in fracts. non magnetic																													
			- 3.7 – 9.1 zone of weathering	3.7	6.7	W		W	W										05217	3.7	6.7	3.0	.010				1271				~	85
			core mostly broken & leached			W		W	W										218	6.7	9.7	3.0	.005				493					100
			- strong epidote developed			W		W	W										219	9.7	12.7	3.0	.002				195					"
			in and immediatly to plag			W		W	W										220	12.7	15.7	3.0	.002				220					"
			qtz filled tension fracts			W		W	W										221	15.7	16.7	1.0	<.001				258					100
			3.7 - 12.5 m below 12.5 m																													
			epidote weakens down hole																													
			to 15.9m where almost nil.																													
			3.7 - 16.7 all w 2-4%																													
			v. f diss py as 1-2mm																													
			rounded blebs																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-388 Page 2 of 90

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py %	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % PPM	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- @ 16.7m abrupt change	16.7	17.9	w		w											221	16.7	17.9	1.2	.001				343					100
			in py content sharp																													
			contact @ 47° to C.A.																													
			andesite below 16.7 is																													
			slightly coarser grained &																													
			darker green 16.7-16.85																													
			py ~ 15% decreases very rapidly																													
			downhole High py section																													
			ends @ 17.9 m w w 3cm																													
			strong py veining along																													
			sharp contact @ 30° to C.A																													
			- Below 17.9 core gradually	17.9	20.9	w		m										3-4	223	17.9	20.9	3.0	.003				954					100
			becomes more chloritic & weakly																													
			- mdtly sfctd downhole w																													
			some short sections of	20.9	23.9									Tr				3-5	224	20.9	23.9	3.0	<.001				1542					100
			many gash veins & strong																													
			silfctn																													
			- @ 26.3 core abruptly	23.9	26.3													7-8	225	23.9	26.3	2.4	.003				695					100
			becomes more fine grained	26.3	29.3	s		w										3-5	226	26.3	29.3	3.0	.002				478					100
			& strongly sfctd w many (10%)																													
			gtz filled tension fractes.																													
			Contact indistinct less																													
			chloritic																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-388 Page 3 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- 31.0 Sharp contact	29.3	32.3	m		m										3-5	05227	29.3	32.3	3	<.001				973					100
			lt gry v. fgr mafic volc w	32.3	34.0													3-5	228	32.3	34.0	1.7	<.001				327					100
			med green f gr mafic volc																													
			@ 50° to C.A.																													
			- Below 31.0 core is																													
			strongly chloritic & w kly																													
			sfcfd w short (to 30cm)																													
			sections of stronger silfctn																													
			- 34.0 - 35.7 strongly pyritic	34.0	35.7	s		s										15-20	229	34.0	35.7	1.7	.005				3993					100
			section strongly chltzd & sfcfd																													
			w ~ 15-20% py as 1/2 mm -	35.7	38.7	w		m										2-3	230	35.7	38.7	3.0	.002				928					100
			2mm dissems in bands along	38.7	41.7	w		m										1-2	231	38.7	41.7	3.0	<.001				569					100
			foliation @ 40° to C.A. Sharp	41.7	44.7	m		m										1-2	232	41.7	44.7	3.0	<.001				642					100
			upper contact @ 90° to C.A.	44.7	46.0	H		W						Tr				3-5	233	44.7	46.0	1.3	.002				1129					100
			broken lower contact																													
			- @ 46.0 core rapidly becomes	46.0	49.0	W		I						<1%				1-2	234	46.0	49.0	3.0	.002				1034					100
			more sfcfd downhole until	49.0	52.0			I						<1%				1-2	235	49.0	52.0	3.0	<.001				1362					100
			47.5 where it is intensely	52.0	52.9			I						<1%				1-2	236	52.0	52.9	0.9	<.001				680					100
			sfcfd aphanitic almost cherty																													
			1-2% diss py approximately																													
			Cpy assoc w minor qtz																													
			filled tension fracts total																													
			<< 1% of core																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-388 Page 4 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	% Pyh	% Cp	% Ga	% Sp	% Gr	% py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	RQD %	Run	Recovery %
			-52.9 Core goes from	52.9	55.9	m		m							10-12	0237	52.9	55.9	3.0	.073				1756					100
			lt green aphanitic intensely sfd to	55.9	58.9	m		m							7-8	238	55.9	58.9	3.0	.011				613					100
			dk green/black f. grained	58.9	61.9	m		m							8-10	239	58.9	61.9	3.0	.008				942					100
			equigranular w sharp	61.9	62.7	m		m							10-12	240	61.9	62.7	0.8	.009				1306					100
			contact @ 70° to C.A.																										
			~ 10% v fgr -1mm diss																										
			py in most minor cpy																										
			along minor narrow qtz																										
			veins & filled tension fracts.																										
			Some strongly magnetic																										
			w large subang. frags (to 2cm)																										
			and 3mm-10mm veins of																										
			mass magnetite																										
			-59.6 - 60.1 Andesite fragmental																										
			~ 20% 3-5mm subangular																										
			- sub rounded white frags in																										
			a f.gr mafic matrix, strongly																										
			mag w many 1mm - 5mm																										
			mag units all @ 65-70° to C.A.																										
			Core is ~ 12% magnetite																										
			indistinct upper & lower																										
			contacts ~10% diss py																										

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-388 Page 5 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.			% Pyh	% Cp	% Ga	% Sp	Mo % ~~Br~~	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	RQD %	Run	Recovery %
			- @ 62.7 core gradually	62.7	65.7	m		w					<1				5-7	05241	62.7	65.7	3.0	.019				3628					100
			becomes bleached & more	65.7	68.7	S		w					<1				8-10	242	65.7	68.7	3.0	.021				3683					100
			silcfd w Kspar downhole																												
			- 64.9 - 65.4 Shear zone																												
			core sericitic mud & broken																												
			frags w strong fol @ 35° to C.A.																												
			core above & below shear wkly																												
			foliated for ~1 m																												
			by 72.5 m core is intensely	68.7	71.7	I							<.5				10	243	68.7	71.7	3.0	.006				2344					100
			silcfd w only relict volcanic	71.7	74.4	I							<.5				5-7	244	71.7	74.4	2.7	.009				2969					100
			textures remaining																												
			62.7 - 74.4 <1% sphy along																												
			qtz filled hairline fracs																												
74.4	98.3		Altered Intrusive	74.4	77.4	S							1-2			Tr	7-8	245	74.4	77.4	3.0	.010				.71%					100
			- med grey heavily silcfd	77.4	80.4	S							3-4			Tr	5	246	77.4	80.4	3.0	.007				.86%					100
			porphyritic intrusive w	80.4	83.4	S							1-2			Tr	3-4	247	80.4	83.4	3.0	.005				.55%					100
			subrounded, white 2-5 mm	83.4	86.4	S							~1			Tr	3-4	248	83.4	86.4	3.0	.006				.49%					100
			plag phenos in lt-med grey	86.4	89.4	S							~3			Tr	3-4	249	86.4	89.4	3.0	.009				.73%					100
			intensely silcfd & Kfeldspathized	89.4	92.4	S							2-3			Tr	2	250	89.4	92.4	3.0	.008				.52%					100
			aphanitic groundmass which stains																												
			strongly w $NaCoNO_3$; non mag.																												
			- tight irregular upper contact																												
			@ ~ 65-70° to C.A. w																												
			variable tr-5% py & cpy &																												
			<1% very f. blk grey sulphide																												

Alteration | Mineralization | Assay Data | Core Data

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NEWHAWK GOLD MINES LTD.

Project: Sulphside

Drill Hole No. 591-388 Page 6 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	Mineralization % Cp	Mineralization % Ga	Mineralization % Sp	Mineralization % Mo	Mineralization % py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			poss moly Tr. coarser moly	92.4	95.4	S					2-3			Tr	4-5	0575	92.4	95.4	3.0	.010				.85	%				100
			noted. Variable qtz calcite	95.4	98.3	S					4-5			Tr	4-5	252	95.4	98.3	2.9	.007				.83	%				100
			filled tension veins @ all																										
			angles to C.A.																										
98.3	103.5		Altered Intrusive?	98.3	101.3	I					~1			Tr	2-3	250	98.3	101.3	3.0	.041				.56	%				100
			med grey v. f gr intensely	101.3	104.3	I					<.5			Tr	2-3	254	101.3	104.3	3.0	.022				1840					100
			sicfd w wk K feldspar																										
			variable white qtz plag																										
			veins & tension fracts probably																										
			was a f. gr Tuff. Variable																										
			amnts of diss py & cpy																										
			minor cpy units & in qtz																										
			units. qtz healed upper																										
			contact @ 65° to C.A.																										
			indistinct lower contact																										
			because of qtz floating but																										
			between 103 & 104 m																										
103.5	126.7		Altered Intrusive																										
			lt med grey intensely	104.3	107.3	S					<.5			Tr	1-3	255	104.3	107.3	3.0	.009				1730					100
			sicfd. mdtly K feldspathized	107.3	110.3	S					~1			Tr	2-3	256	107.3	110.3	3.0	.010				5080					100
			porphyritic intrusive as	110.3	113.3	S					<.5			Tr	2-3	257	110.3	113.3	3.0	.017				2700					100
			before w velict white plag	113.3	116.3	S					<1				1-2	258	113.3	116.3	3.0	.020				4190					100
			phenos variable diss py cpy	116.3	119.3	S					<.5				1-2	259	116.3	119.3	3.0	.024				2190					100
			moly & v. f gr blk sulphides																										

100

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-388 Page 7 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	K-Spar		Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			but considerably less sulphide	119.3	122.3	S							<1				2-3	5260	119.3	122.3	3.0	.015				3410					100
			content than 1st segment	122.3	125.3	S							~1				5	5261	122.3	125.3	3.0	.015				4830					100
			Intrusive	125.3	126.2	S							<1				2-3	5262	125.3	126.2	0.9	.011				3780					100
126.2	131.5		Altered Tuff?	126.2	129.2	S												5263	126.2	129.2	3.0	.029				3720					92
			med-dk gray v.f. gr																												
			heavily sfcld & K feldspathized																												
			w variable finely diss py &																												
			cpy. Sheared clay																												
			gouge appr. contact w intrusive																												
			@ 30° to C.A.																												
126.2	131.5		Shear / Fault	129.2	132.2												3	5264	129.2	132.2	3.0	.028				4410					
			core broken & fractured															5													
			minor clay gouge weak																												
			shearing along fracts most																												
			@ 30-40° to C.A. Rock																												
			v. similar to volcanics u																												
131.5	163.9		Feldspar Porphyry Intrusive																												
			Light to medium grey coarse	132.2	135.2	S				✓			.5				5	5265	132.2	135.2	3.0	.011				4120					
			grained. Weak to mod K-spar																												
			altered Feldspar phenos upto																												
			1/2 cm. Pyr to m upto																												
			10% amt amounts																												
			similar to 103.5-126.2																												

NEWHAWK GOLD MINES LTD. Project: Silphside Drill Hole No. [illegible] Page 8 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			cp found pred in ass. with			S								1			-	5	5264	135.2	138.2	3.0	.009				1960					
			qtz veinlets. Bn occ in with																													
			fractures. Py forms stringers			S								.5				5	5267	138.2	141.2	3.0	.005				3020					
			tlo. Minor fragments are																													
			rafted			S								.25				3	5268	141.2	144.2	3.0	.007				2940					
			veinlets are @40-80° to ca																													
			from 136.4-136.6 zone of																5269	144.2	147.2	3.0	.004				4040					
			20%-py @ 10° to ca			S																										
			from 147.8-148.1 a 5% cp fine											1				5	5270	147.2	150.2	3.0	.012				4240					
			disseminated																													
			fine grained black sulphides			S								<1				3	5271	150.2	151.8	1.6	.004				2880					
			occur tlo in assoc with py																													
			Occasionally fractures are graphite			S								.25				5	5272	151.8	154.9	3.1	.005				2560					
			lined																													
			weak sericite alt			M								.5				5	5273	154.9	157.9	3.0	.010				4830					
			from 154.6 - 156.1 the section																													
			is highly silicified greyish green			S								.5				10	5274	157.9	160.9	3.0	.024				3620					
			colored mottled appearance																													
			from 158.6 — 163.8 the unit			S								1				10	5275	160.9	163.9	3.0	.027				5230					
			is dark greenish grey colored with																													
			10% py (Pg) highly siliceous			S																										
			minor MnS occ within fractures																													
			the unit is almost a dark black																													
			glasse 3% Cp occ short with																													

NEWHAWK GOLD MINES LTD. Project: Sleekside Drill Hole No. [illegible] Page [illegible] of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	% Pyh	% Cp	% Ga	% Sp	% Gr	Px	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
159			Rhyolitic Tuffs			W	W	W								5276	162.9	167.1	5.2	.010				1520					
			fine grained pale green-green lapilli			W																							
			upto 3cm nearly-well stratified			W		W	W						5%	5277	167.1	170.1	3.0	.006				896					
			Bedding @ 70° to ca. Five																										
			percent pyrite throughout with			W		W	W						5	5278	170.1	173.1	3.0	.007				1040					
			the pyr occurring as stringers																										
			disseminations and as clots. Weak			W		W	W						5	5279	173.1	[illegible]	3.0	.004				702					
			to mod chlorite alt. To disseminated																										
			cp. Minor quartz calcite veining			W		W	W						5	5280	176.1	[illegible]	3.0	.015				1110					
			veins with occ pyrite. Fractures													5281													
			generally black chlorite lined			W		W	W						5	5281	179.1	182.1	3.0	.005				613					
			The unit is relatively homogeneous																										
						W		W	W						5	5282	182.1	185.1	3.0	.003				619					
			@ 185.4 30cm fracture zone @ 20°			W		W	W		tr				5	5283	185.1	188.1	3.0	.006				933					
			to ca																										
						W		W	W						5	5284	188.1	191.1	3.0	.003				897					
						W		W	W																				
						W		W	W						5	5285 191	191.1	194.1	3.0	.001				355					
						W		W	W						3	5286	194.1	197.1	3.0	.001				344					
						W		W	W						5	5287	197.1	200.1	3.0	.003				65					
						W		W	W						3	5288	200.1	203.1	3.0	.005				1010					
						W		W	W						3	5289	203.1	206.1	3.0	.003				891					
			opletchy py 1 py stringers			V		W	V						7	5290	206.1	209.1	3.0	.006				757					
			212.50-30cm fracture 11 to ca			W		W	W						1	5291	[illegible]	212.1	[illegible]	.007				1085					
						V		W	W						1	5292	212.1	213.6	1.5	.010				1480					

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NEWHAWK GOLD MINES LTD. Project: Sulphside Drill Hole No. 91-306 Page 10 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	Mineralization % Cp	Mineralization % Ga	Mineralization % Sp	Mineralization % Gr	Mineralization %	Assay Data Sample No.	Assay Data From	Assay Data To	Assay Data Int	Assay Data Au opt	Assay Data Ag opt	Assay Data Au check	Assay Data Ag check	Assay Data Cu %	Assay Data Pb %	Assay Data Zn %	Core Data RQD %	Core Data Run	Core Data Recovery %
			from 213.6 - 214.8 in gouge veined (≥ 30%) section in which 30% py occurs f/o 7cm with 1cm 1.5 from 5% py white peripheral to it is heavy py				W	S			tr				30	5293	213.6	214.8	1.2	.043				1600					
			From 214.8 - 216.3 relatively minor mineralization pyrite occurring along fracture faces								3				5	5294	214.8	216.3	1.5	.013				2270					
			216.3 - 218.0 MoS_2 along fracture faces Freedom Minor Py occ lines fractures					W			tr				5	5295	216.3	218.0	1.7	.012				1370					
			218.0 - 219.6 intersecting py with minor cp veins @ low ang 10-20° V. hot. gh 1cm wide from 218.9-219.6 gh-wall veined area with 20% py			W		M	M		tr.5				10	5296	218.0	219.6	1.6	.045				3340					
			219.6 - 222.0 5% py in well @ 10° to ca													5297	[illegible]	[illegible]	[illegible]	.006				1120					
			222.0 - EOH																										

NEWHAWK GOLD MINES LTD.

Diamond Drill Hole Record

Project: Sculfside

DEPTH	BEARING	DIP	SURVEY TYPE			
COLLAR		-90	Compass	PROPERTY: Sulphurets	LENGTH: 222.m	HOLE NO.: S 91-389
118.3		-90	Acid	CLAIM: Todney 9	CORE SIZE: BQTK	SHEET NO. 1 of 12
164.0m		-90	Acid	LATITUDE: 6262 777.463	RECOVERY:	LOGGED BY: D. Visser
222 m		-90	Acid	DEPARTURE: 422 421.114	STARTED: July 18, 1991	SAMPLED BY: B. Elliot
				ELEVATION: 1517.705m	COMPLETED: July 23, 1991	PURPOSE: Test Sulphurets Au Zone

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	ILLITE	CHLOR	CARB.	K-Spar			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Pl
0	21		Casing															
2.1	67.2		Andesitic Tuffs															
			fine grained, pale green - green,															
			variably chloritized, and silicified															
			erratic qtz-carb stockwork-fracture occurs															
			intermittently, Pyrite content variable															
			upto 5% as disseminations and															
			stringers. Weak to moderate sericite															
			alteration ½. Chlorite lined															
			fractures common. Frequents upto ½ cm.															
			from 2.1 - 8.7 the section is pale	2.1	8.7	M		M	W									2
			green, strongly - moderately sil. with															
			a 10% carb-qtz veins minor															
			epidote alt. Fractures @ 50° to ca															
			common															
			From 8.7 - 14.4	8.7	14.4	M-W		M	M									
			Carbonate veining/alt increases															
			Pinkish-tinged carb common. Weak bedding															
			@ 30° to ca. Silicification less															
			prevalent. Pyrite content increases															
			marginally. Epidote alt common,															
			patchy silicification.															

Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
5298	2.1	5.1	3.0	.009				654					
5299	5.1	8.1	3.0	.003				187					
5300	8.1	11.1	3.0	.004				285					
15201	11.1	14.1	3.0	.006				402					

NEWHAWK GOLD MINES LTD. Project: Sulphide Drill Hole No. S91-389 Page 2 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			14.4 - 22.5	14.4	22.5	W-M		M	W								1	15202	14.1	17.1	3.0	.005				283					
			Rate green. less carbonate veining than previous															15203	17.1	20.1	"	.004				116					
			patchy epidote alt. Fractures															15204	20.1	23.1	"	.007				321					
			are carbonate infilled. Fracturing																												
			common @ 10° to cm. Pyrite																												
			content variable to 6% in																												
			last 50 cm carb alt increases																												
			then dies out																												
			22.5 - 42.8			W		M	M-W								5	15205	23.1	26.1	3.0	.003				226					
			- Section is darker green															15206	26.1	29.1	"	.011				477					
			colored. Pyrite content increases															15207	29.1	32.1	"	.004				116					
			Fragments are more noticeable															15208	32.1	35.1	"	.003				872					
			with frags being upto 5cm															15209	35.1	38.1	"	.003				85					
			in size. Between 30.5 and															15210	38.1	41.1	"	.005				216					
			31.2 is a 1cm pyrite stringer															15211	41.1	44.1	"	.002				203					
			that is @ 1° to ca																												
			Occasional gossanous stain along																												
			fractures.																												
			42.8 - 45.4	42.8	45.4	S		M	W								5	15212	44.1	47.1	3.0	.002				211					
			section is erratically upto strongly																												
			silicified, weak - moderate crackle																												
			texture bleached appearance																												
			only to fractures. More carb																												
			breccia. Mottled appearance																												

NEWHAWK GOLD MINES LTD. Project: Schwab Drill Hole No. S-91-539 Page 3 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % PPM	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			45.4-50.1 Andesitic tuff	45.4	50.2	M		W	W									10	15213	47.1	50.1	3.0	.003				272					
			green, fine grained, decomposed																15214	50.1	53.1	3.0	.003				327					
			pyrite f/o and as filmings,																													
			weak - mod sericite alt f/o																													
			Minor carb stringers unevenly																													
			distributed. Minor silicification																													
			in last 2 m. At 48.5 is 65/5cm																													
			section M to ca of pp																													
			50.1-54.0																													
			pale greenish gray colored andesitic			M		W	W									5	15215	53.1	56.1	3.0	.003				265					
			tuff similar to above mod sil.																													
			very minor carb alt. From 51.8																													
			to 54.0 the unit is sheared,																													
			faulted etc. 5% py f/o																													
			54.0-67.2			M		W	W										15216	56.1	59.1	3.0	.003				161					
			fine grained, andesitic tuff,																													
			variably altered with color			M		W	W										15217	59.1	62.1	3.0	.001				376					
			varying from light to dark																													
			green. From 58.8 the			M		W	W										15218	62.1	65.1	3.0	.005				322					
			mod section contains ~20%																													
			carbonate veining. Tr cp occurs			M		W	W										15219	65.1	68.1	3.0	.005				1110					
			within the veins @ 62.0																													
			the veins produced an estimation																													

NEWHAWK GOLD MINES LTD. Project: Sulphide Drill Hole No. S91-389 Page 4 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr		Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			w/@ 60° to ca. Carb veining predominant to 63.8																										
67.2	71.8		Andesitic Lithic Tuff Felsic Rock fine grained matrix in which phenocrysts upto .3cm occur. Highly siliceous in part. Weak - mod carb alt. Minor carbonate stringers 5% pyr to tr disem cp crude foliation @ 45° to 1cm carb veinlet @ 10° to ca @ 70.7			M-S		W	W			tr			5	15220	68.1	71.1	3.0	.011				.010				
71.8	76.6		Cherty Sedimentary Volcaniclastics fine grained grey brown colored upper and lower contacts irregular. Minor upto 2% pyr along with upto 1% Po chalcopyrite disseminated t/o. Hard. Minor carb veining t/o. In part mixed with andesitic tuffs.			S		W	M W			1/2			2	15221	71.1	74.1	3.0	.018				.41				

NEWHAWK GOLD MINES LTD. Project: Sulphide Drill Hole No. S-91-389 Page 5 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr		Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
76.6	92.5		Andesitic Tuff ?																										
			fine grained green - pale green			5-M		W	W		1				5	15222	74.1	76.6	2.5	.020				.52					
			contains minor sil sediments (@ 80° to c.a.)			"		"	"		2				5	15223	76.6	79.6	3.0	.031				1.23					
			Disseminated Cp occurs w/ with stand			"		"	"		3				5	15224	79.6	82.6	3.0	.022				.88					
			sections w/ 1m ~~[illegible]~~ containing upto			"	"	"	"		1/2				5	15225	82.6	85.6	3.0	.014				.55					
			2% cp. Minor carbonate veinlets			"		"	"		1/2				5	15226	85.6	88.6	3.0	.013				.54					
			occur w/ Pyr is disseminated as			"		"	"		1/4				5	15227	88.6	91.6	3.0	.018				.54					
			stringers, fractures common @ 30°			"		"	"		tr				10	15228	91.6	92.5	0.9	.008				.75					
			to ca and @ 60° to ca Fractures																										
			occ chlorite lined. Fragments are																										
			upto 1cm in size. In part																										
			serpentized. First 2m appears																										
			to be transitional phase from																										
			Cherty sediments																										
92.5	98.7		Highly Altered Siliceous Andesitic	92.5	98.7	Z		W	W	M		tr			5-10									PPM					
			Tuff ? Cherty Sediment			Z		W	W	M					5	15229	92.5	95.5	3.0	.007				0.01					
			fine grained pale green, occasional			S		W	W	M		.25			10	15230	95.5	98.7	3.2	.011				.04					
			biotite alteration Pyrite as																										
			disseminations and clots.																										
			From 96 - 96.10 section has 5%																										
			Cp. Fracturing occurs w/,																										
			preferred orientation @ 30° to ca and @ 80°																										
			Bed cp is associated with																										
			biotite veinlets																										

NEWHAWK GOLD MINES LTD. Project: Sulphide Drill Hole No. S91-389 Page 6 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Biotite	K-Spar	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr		Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % PPM	Pb %	Zn %	Core Data RQD %	Run	Recovery %
98.7	101.5	At	Andesitic Tuff?			S		W	W									15231	98.7	101.5	2.8	.007				[illegible]					
			fine grained, green, pyrite																												
			commonly disseminated +/-																												
			fractures @ 20° to ca																												
			lower contact gradational over																												
			5cm @ 70° to ca																												
101.5	114.0	At.	Highly Altered clasty Andesitic Tuff/sediment			S		m. W	W	W			tr				10														
			Similar to 92.5-98.7			S		m. W	W	M			2.25				10	15232	101.5	104.5	3.0	.017				[illegible]					
			grades from a coarse, less altered			S		M	W	M			tr				10	15233	104.5	107.5	3.0	.004				[illegible]					
			tuff to highly altered			S		W	W	M			tr				8	15234	107.5	110.5	3.0	.018				[illegible]					
			unit in which no remnant			S		W	W	M			tr				10	15235	110.5	114.0	3.5	.005				[illegible]					
			~~stand~~ textures exist, less																												
			pyrite on occasion upto 20%																												
			occurs 1 m. Biotite alt is																												
			completely to pent and a																												
			brownish Chaotic assemblage																												
			Quartz-carb veins <5%																												
114.0	120.7	At	Highly Altered Andesitic Porphyritic			S		M	~~M~~ W	W	M						10														
			Tuff																												
			Fine grained, aphanitic, light grey																												
			colored siliceous weak-mod Kspar alt																												

NEWHAWK GOLD MINES LTD. Project: Sulphide Drill Hole No. 591-389 Page 7 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Kspar			% Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			difficult to determine the original																													
			~~rock~~ composition as rock is																													
			in part totally silicified																													
			Gradational upper contact based																													
			upon biotite presence. Pyrite																													
			disseminated. Weak-mod qv																													
			stkwk on occasion																								PPM					
			From 114.0-117.3 the section			S		W		W				tr			10	10	15236	114.0	117.0	3.0	<.001				2030					
			is relatively solid with 10% py			S		W	W	W				tr			5	5	15237	117.0	120.7	3.7	.004				1050					
			117.3-120.7 Rossyn Fault																													
			core is highly fractured weak																													
			qv stkwk qv's @ 80° to ca																													
			fracture 11 to ca, tr disseminated																													
			MoS2 within qv																													
120.7	129.7	AL	120.7-129.5 ANDESITE TUFF BRECCIA the section is			S		M	M	M																	%					
			strongly silicious - part			S		M	M	M				3				10	15238	120.7	123.7	3.0	.033				.74					
			mottled ~~Possible Intrusive flow path~~ cpy is both as disseminated			S		M	M	M				3				10	15239	123.7	126.7	3.0	.030				.63					
			and within fracture fillings																													
			occasionally as with qv.																													
			Rock in part resembles crackle																													
			breccia. Appears in part																													
			to be intrusive brx																													
			Minor fine grained black																													
			amphibole interspersed																													
			in part rock is totally sil.																													

NEWHAWK GOLD MINES LTD. Project: Silbiode Drill Hole No. [illegible] Page 8 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Bio.	K-spar	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
						S		M	W				1½				10	15240	126.7	129.7	3.0	.026				.33					
129.7	134.5	Ak	Chert: Volcaniclastic Highly Altered Highly biotitic (fine grained brownish tinged, green colour) fine grained. Chalcopyrite f/o is varying conts. Where fresh appears to be calcareous tuff with fragments of argillite fragments upto 5cm. Cp occurs as thin fracture, fillings and blebs			M		M		S	W		3½			-	5															
													2				5	15241	129.7	132.7	3.0	.014				.43					
																		15242	132.7	134.5	1.8	.024				.77					
134.5	135.3	Ak	Andesitic tuff (Cherty sed?) fg pale green weakly sil 5% fine py stringers-carb stringers @ 80° to ca. Minor cp in stringers and as fine stringers.			W		W	M				tr				5	15243	134.5	135.3	0.8	.016				.49					
135.3	153.6	Ak	Andesitic Tuff (Possible Int) Medium Grained pale greenish grey. Highly silicified f/o. Albit alt f/o. Weak-moderate carbonate alteration. Weak-mod pervasive K-spar alt																												

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NEWHAWK GOLD MINES LTD. Project: Sulphside Drill Hole No. S 91-389 Page 9 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	K-Spar	Bio. Alt.	% Pyh	% Cp	% Ga	% Sp	% Gr	cp	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			remnant ~~stringers~~ fracture stockwork			S		M W		W			½				10	15241	135.3	138.3	3.0	.015				.45					
			chlorite as bands and along			S		M W		W M			2				10	15242	138.3	141.3	3.0	.014				.74					
			fracture faces. Variably silicified			S		M		W M			3				10	15246	141.3	144.3	3.0	.026				.79					
			and mineralized. Cp occurs as			S		M		W M			1				10	15247	144.3	147.3	3.0	.018				.63					
			disseminations and along fractures			S		M		W	W		1				5	15248	147.3	150.3	3.0	.028				1.08					
			and in occasionally with			S		M		W M	W		2				5	15249	150.3	153.6	3.6	.026				.67					
			gr. QV generally ~~and~~ <5%																												
			Graphite is an occasional ~~the~~																												
			coating fracture faces																												
153.6	166.7	Ab	Andesitic T. PP? (Possible Altered	153.6		S		M	W	W M			½-1				10	15250	153.6	156.6	3.0	.007				.32					
			Intrusive)	154.		S		M					½-1				10	15251	156.6	159.6	3.0	.015				.63					
			- med grained greenish colored										½-1				10	15252	159.6	162.6	3.0	.021				.88					
			- mottled appearance in part										½-1				8	15253	162.6	165.6	3.0	.016				.53					
			- pyrite disseminated t/o cp										1				8	15254	165.6	166.7	1.1	.015				.75					
			variably disseminated																												
			- fractured @ 30° 70° to ca																												
			- Minor dark veining t/o																												
			- occ fine grained black sulphide																												
			- mafic xenoliths occ																												
			- lower contact @ 30°																												
166.7	170.5		Graphite Filled Shear Zone																												
			Exact contacts: more graphite																												
			banding above near fracturing																												
			to be: 1 to ca																												

NEWHAWK GOLD MINES LTD. Project: Sulphside Drill Hole No. 89-38-9 Page 10 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	K SPAR	SER		Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr		Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu % ppm	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			graphitic content x 30-50%											tr				5	15255	166.7	169.7	3.0	<.001				2160					
			Footwall walls silicified pale											tr				5	15256	169.7	170.5	0.8	.009				4000					
			green, green Trace disseminated																													
			py. veinlets t/o. Fractures 30-50																													
			to ca.																													
170.5	222		Andesitic Tuffs / Altered Int?	170.5	176.2	W		W						tr				5														
			a variety of tuffs / Altered Int?			U		W						tr				5	15257	170.5	173.5	3.0	.004				1710					
			From 170.5-176.2 appearance			W		W						tr				5	15258	173.5	176.2	2.7	.009				3820					
			highly fractured zone with preferred																15259	176.2	178.2	2.0	.004				1390					
			orientation @ 45° to ca. Sections																													
			of core are chloritically altered																													
			176.2 - 178.2 Andesitic tuff	176.2	178.2	W		W	W									10														
			weak carb veining, possible																													
			intermixed, py. disseminated t/o																													
			178.2 - 183.4 Andesitic tuff			S/M		W	M	M/W				t				5	15260	178.2	181.2	3.0	<.001				2060					
														t				5	15261	181.2	183.4	2.2	<.001				2550					
			fine med grained, pale green																													
			green colored, Sulphides disseminated																													
			t/o. Calc veining t/o variable																													
			sil. Mottled appearance																													

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NEWHAWK GOLD MINES LTD. Project: Sulphides Drill Hole No. S 91-38 a Page 11 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Fe Ox	K S Fa		Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			Altered Intrusive? (Altered tuffs) fine-med grained mafic remnant texture with mostly feldspar phenos. Pale grey green colored. Sec foliation @ 30° to ca	183.4	184.4	M		M	M	M	W							5	15262	183.4	184.4	1.0	.009									
			Andesitic Tuff As above, well mineralized with Py, cp. Cp appears to be in tension quartz ⊥ to core. Py disem to, section appears to be sheared off @ lower contact by 20° shear zone. MoS2 common	184	185.7	M		M	M	M	W			3				5	15263	184.4	185.7	1.3	.032									
			Andesitic Tuff fine grained pale green, possibly vesicle, relatively massive although pyrite disem to cp minor hairline fractures to at various orientations healed by calcite fractures @ 20° to ca ± @ 30°	185.7	192.8	W		W	W					+/				5	15264	185.7	188.7	3.0	.005									
																			15265	188.7	191.7	3.0	<.003									
																			15266	191.7	194.7	3.0	.005									

NEWHAWK GOLD MINES LTD. Project: Silhside Drill Hole No. S 91-389 Page 12 of 12

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	K-SPAR			% Pyh	% Cp	% Ga	% Sp	% Gr		Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			Variably altered Andesite Tuff	192.8	202.6	M		M		W								10														
			pale green to grey, weak			M		M		1									15267	197.1	197.6	2.9	<.003				.0192					
			carbonate quartz stockwork f/o. Carbon			S		M	M	M				tr				15	15268	197.6	199.7	2.1	.004				.0705					
			minor graphitic shear zone 196-196.7			M		M	W									10	15269	199.7	202.6	1.9	.001				.0410					
			from 197.6-199.7 section is highly																													
			silicified with 15% py occurring																													
			in bands @ 30° to ca. 1 cm																													
			dissemination																													
			Shear Zone	202.6	205.1			W											15270	202.6	205.6	3.0	.004				.0733					
			Fracture @ 50° to [redacted]																													
			fracturing f/o gouge like																													
			Well chloritized weakly veined	205.1	206.7			M	W									2	15271	205.6	206.7	1.1	.005				.103					
			fractures chlorite lined																													
			Highly veined carbonate rich	206.7	208.3	M		M	M					1/2				5	15272	206.7	208.3	1.6					.221					
			in part heavily silicified																													
			plush grey mineral, sericite?																													
			Highly variable andesite tuffs	208.3	222	W		M	W M					tr				5-8	15273	208.3	211.3	3.0	.009				.137					
			interbedded with argillaceous																15274	211.3	214.3	3.0	.004				.0964					
			sediments. Weak foliation @																15275	214.3	217.3	3.0	<.003				.067					
			70° to ca. last 2 m - fault																15276	217.3	220.3	3.0	.005				.1360					
			gtz carb veins f/o. Veins @ 50°																15277	220.3	222	1.7	<.003				.0751					
			to ca. No occ f/o																													

222 E.O.H.

NEWHAWK GOLD MINES LTD.

Diamond Drill Hole Record

Project: Sulfside

DEPTH	BEARING	DIP	SURVEY TYPE
COLLAR	—	-90°	Acid
169'	—	-90°	
389'	—	-89°	
559'/819'	—	-89°	

PROPERTY: Sulphurets	LENGTH: 301m	HOLE NO.: S91-390
CLAIM: TEDRAY 9	CORE SIZE: BW TW	SHEET NO. 1 of 23
LATITUDE: 6262692.144	RECOVERY: 98%	LOGGED BY: JRB
DEPARTURE: 422183.966	STARTED: 7/22/91	SAMPLED BY: B.Elliot
ELEVATION: 1461.029 m	COMPLETED: 7/29/91	PURPOSE: Test Sulph Au Zone

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int m	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
0	5.2		Overburden / Ground Rock																													
			Casing to 6.7m																													
5.2	9.2		Felsic/Lapilli Fragmental Tuff																													
			Mixed sections of med. gr. (1-5mm)																													
			felsic fragmental to lapilli																													
			tuff with sections of cr. gr. felsic																													
			fragmental (1-3cm). Zones of stronger																													
			silicification results in some micro																													
			brecciation. All rx. subject to late																													
			gtz hosted micro shattering & tension																													
			gashes cut by later gtz hosted steeper																													
			(~90°) foliation. Feldspars altered																													
			to sericite. Mafics if any ch). to																													
			ser altered. Pyrite in later fractures																													
5.2	9.2		Silicified Fragmental - Very silicified	5.2	7	S	W		W									1%	15278	5.2	7.2	2	.001				.01					100%
			bx. v. f. gr. fragmental. Textures			S	W		W									4%	15279	7.2	9.2	2	<.001				.01					"
			destroyed by silicification. Sil. induced																													
			bx. Py in bx matrix, en frac																													
			& penetrating f. gr. qz qn protolith																													
			Textures variable. 5cm lapilli tuff																													
			horizons																													
9.2	15.3		Felsic Tuff Fragmental			M	W											3-4%	15280	9.2	12.2	3	.001				.03					
			fragments to 3cm in med. gr. felsic			M	W		M	M								1-3%	15281	12.2	15.2	3	<.001				<.01					
			tuff matrix - less silicification, med. ser.																													

From 138.5 - 171.5 = 33m @ .0125 opt Au, .35% Cu
171.5 - 180.5 = 9m @ .018 opt Au, .15% Cu > .0137 ;
206 - 224 = 18m @ .0305 opt Au, .17% Cu
= .54 o/z

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NEWHAWK GOLD MINES LTD. Project: Sulphurets Drill Hole No. S-91-390 Page 2 of 23

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
9.2	15.3		Distinct. felsic tuff texture to 15.3																													
			Fragments increase in size toward end of sect.																													
			overall. silicification & sericitization																													
			— py in later fract.s in																													
			— Flat tension gashes Qtz-calcite																													
			healed. Fine shattering Qtz-cal. healed																													
			13.08 – 13.7 Brecciated &																													
			Qtz calcite healed. Larger frag																													
			less shattered. Matrix (med. gr. tuff)																													
			heavily Qtz calcite veined / 2-3% py																													
15.3	27		— 19.46 2 irreg 1cm MoS_2																													
			veinlets on contact of f.gr.																													
			gn. chl. frag tuff & 10cm section																													
			of cr. frag. f.gr. tuff. later																													
			Qtz calcite fract cut 25° dipping MoS_2																													
			veins																													
			— entire sect. finely shattered &																													
			Qtz calcite healed																													
15.3	27		Hornblende Andesitic Tuff			M		M		M								1-2%	15282	15.2	18.2	3	<.001				<.01					100%
			Uniform textured non fragmental			M		M		M								1%	15283	18.2	21.2	3	.001				<.01					
			Hbl mafic tuff w chl alt. mafics																													
			strong overall ser. alt. / mod silicification			M		M		M								<1%	15284	21.2	24.2	3	<.001				.01					
			sections finely shattered & qtz-cal.			M		M		M								<1%	15285	24.2	27.0	2.8	<.001				.01					
			healed																													
27	37.6		Hornblende Andesitic Tuff			W		M		W								<1%	15286	27	30	3	<.001				<.01					100%
			— less altered & shattered throughout			W		M		W								<1%	15287	30	33	3	<.001				<.01					

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Ser	% Pyh	% Cp	% Ga	% Sp	% Gr	%	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
27	37.6		Hornblende Mafic (Andesite) Tuff			w		M	w	w/M						<1%	15288	33	36	3	<.001				<.01					100%
			-massive - non fragmental - w-mod			w		M	w	w/M						<1%	15289	36	37.6	1.6	<.001				<.01					11
			chl. ser. alt. f-med grained Andesite.																											
			-fairly leucocratic - textures																											
			obscured by w-mod. sil & chl/ser																											
			alt. - finely Qtz. cal. shattered																											
			- <1% fract. controlled py																											
			-minor FeO on some fract.																											
37.6	44		Fragmental Andesitic Tuff																											
			F-Med. grained Andesitic (Hbl)																											
			fragmental - Hornblende chl-ser. alt.			w/M		M	w	M						1%	15290	37.6	40.6	3	<.001				.03					100%
			-matrix chl. ser. flooded. Felsic			w/M		M	w	M						1%	15291	40.6	43.6	3	<.001				.01					
			fragments ser. alt., w.k. silica. Color																											
			dark gray gn. w. ~1% fract. cont.																											
			py. low angle fract. Qtz cal hbd																											
			-tension gashes & shattering Qtz cal.																											
			-minor open fract - frag to 1 cm																											
			37.6 - 39.9 Weakly frag. Hbl And.																											
			-dk. gy-gn. Patchy py in bx zones																											
			39.9 - 44 Andesite Fragmental																											
			-stronger pervasive ser alt.																											
			-frag flow banding @ 40.7 @ 45° to CA																											
			possibly lapilli frag.																											
			-41.9 evidence of brecciation of frag.																											

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	ser	% Pyh	% Cp	% Ga	% Sp	% Gr	% py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
37.6	44		Fragmental Hbld And. Tuff																											
			41.8 – 42.2 Fragments brecciated &			W		W	W	M						1%	15292	43.6	46.6	3	<.001				<.01					
			healed by dk py Qtz ser																											
			-pervasive fine Qtz calcite healed																											
			shattering																											
44	46.5		Massive Hbld Andesite/Andesitic Tuff																											
			-fragments not prominent																											
			-textures obscured by pervasive ser																											
			alt. Chl alt mafics ser alt.																											
			-no distinct fract sets - gen shattering																											
46.6	56.5		Andesitic Tuff - massive mod.			W		W/M	W	M						1%	15293	46.6	49.6	3	<.001				<.01					
			46.6 – 48.4m mod. ser alt.			W		W/M	W	M						1%	15294	49.6	52.6	3	<.001				<.01					
			f-med. gr. Hbld And. tuff. Lower			W		W/M	W	M						1%	15295	52.6	55.6	3	<.001				<.01					
			c? @ 35° to CA. c? a flow band			W		W/M	W	M						1%	15296	55.6	58.6	3	<.001				<.01					
			48.4 – Similar tuff but																											
			less altered. f-med. gr. felsic																											
			Andesitic Tuff - minor py clusters																											
			- dom. flat late Calcite/Qtz tension																											
			veins @ 30° & 50° to CA																											
			- prominent fresh Hbld phenos @																											
			52.6 – 53.6 - Upper ct 50° to CA																											
			56.0 – 56.5 - gradational cts.																											
56.5	63.3		Fragmental Andesitic Tuff			W		W/M	W	M						1%	15297	58.6	61.6	3	<.001				<.01					
			textures obscured by mod ser/si																											
			overprint & late Qtz calcite veins																											

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Sr			% Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
56.5	63.3		Frag. And. Tuff cont. Hbl/chl alt																													
			mod. overall alt.-pervasive ser.			W		M	W	M/S								1%	15298	61.6	63.3	1.7	.001				.01					100%
			obscures frag. textures. 1-4mm frag																													
			— 56.57 3mm X cutting Qtz/Alt/calcite																													
			vein @ 85° to CA.																													
			— tuff fairly massive uniform																													
63.3	66.8		Coarse Brecciated Fragmental																													
			Hbd Andesitic Tuff																													
			— Variably textured fragments																													
			and sections of tuff brecciated			W		M	W	M/S								1%	15299	63.3	64.3	1	<.001				<.01					100%
			scattered, Py-Qtz healed &			M/S		M	W	M/S								+15%	15300	64.3	66.8	2.5	.012				.03					
			silicified. Bx textures X cut by																													
			later irreg. flat Qtz calcite gash																													
			fracts fine irreg fract.																													
			— pyrite to 15% in fract																													
			edges in dark siliceous br matrix																													
			— well healed w no open fract																													
			— 63.3 - 64.25 Massive Hbd frag																													
			tuff. 1-4mm frag - uniform, ser alt																													
			— 64.25 - 66.65 Large heavily																													
			brecciated leucocratic tuff & Hbd																													
			Andesitic Tuff fragments in siliceous																													
			pyritic matrix cut by Qtz py veinlets																													
			& later Qtz calcite gash fract																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	ser	% Pyh	% Cp	% Ga	% Sp	% Gr	% py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
66.8	74.6		Mixed sections of Andesitic Tuff fragmental & Argillite																											
			-discrete zones of bx w sil. flooding			W		–	M	W/S						4.5%	15301	66.8	68.05	1.25	.002				<.01					100%
			-Xcut by later intense Qtz/CA shattering/tension veins/gash fract.																											
			-larger pyritized/sil'd serpolt. And. Tuff also si bx - minor Qtz CA shatt.																											
			66.8 - 67.6 - Fine frag. mixture of tuff/shattered arg. to cr. frag. @ base - Arg. Hornfelsed/mult. pyfl.																											
			67.6 - 67.75 f.gr. arenaceous tuff w fine bedding @ 35° to CA.																											
			67.75 - 68.05 Py flooded Blck Argillite cut by 5cm ser py flooded tuff arenite bed. cte 37°																											
			68.05 - 70.55 Leucocratic sil'd Bx. Hnbl Andesitic Tuff. frag.			M		W	W	M/S						10%	15302	68.05	70.55	2.5	.006				.01					
			-Bx sections Qtz Py flooded & brecciated																											
			Xcut by later Qtz calcite veins -last 70cm fresher Hnbl																											
			70.55 - 74.6 Mixed Cr. Angular Frag. of Andesitic Tuff & Bl. Argillite			M		–	–	W/M						7.9%	15303	70.55	73	2.45	.002				.01					100%
			cut by later bx & Silica py flooding																											
			-py diss in tuff & Arg frag & heavy in bx matrix - & floor Tuff frag.			M		–	–	M						8%	15304	73	74.6	1.6	.002				.01					
			Bedding @ 74m 60° to CA. Arg/tuff																											

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
74.6	90.75	(16.15)	Brecciated Mixed Arg. Tuff Fragments																													
			-Mixed section of 1-2cm Arg frag &			M		—		M								20-25%	15305	74.6	76.5	1.9	.007				.02					
			tuff frag. which have been bx & Qtz																													
			py healed & later Calcite Qtz shattered																													
			-py dom in Frag/Bx matrix - fined																													
			gr aggregates - Tuff frag. ser.																													
			altered. / Black arenaceous tuff/Arg																													
			sharp rel. unaltered. Frag. & Bx																													
			matrix heavily calcite qtz shattered																													
			-heavy overall py flooding in finely																													
			lam black arenaceous tuff/dust tuff																													
			frag. At 75.5 siliceous bx matrix																													
			is not carrying py in frag & fract																													
			-py from boids) in finer bx matrix																													
			76.5-87.5 Dem. Arenaceous			M					W							10-15%	15306	76.5	79.5	3	.003				<.01					
			tuff w frag of arenite & disrupted																													
			darker argillaceous beds w gy gn																													
			irr. ser flooding related to later bx.																													
			-fined ess py in arenite & in																													
			flat irreg lam py veins @ 76.5-.6																													
			-arenite aphanitic when silicified																													
			Asp y @ 80.8 ~0.5%			M S	W			W M								+10%	15307	79.5	80.5	1.0	.004				<.01					
			MoS2 stringers @ 82.9m			M S				M								10-15%	15308	80.5	81.5	1	.014				.01					
			-early silica bx infilling & cut by			M S				M			Asp y MoS2					11	15309	81.5	83	1.5	.023				.02					
			later v. fgr. py flooding matrix &			M S				M								25%	15310	83	84.5	1.5	.013				.02					
			py from boids - minor MoS2 & Asp y in py			M S				M			Asp y MoS2					20%	15311	84.5	86	1.5	.014				.02					

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
74.6	90.75		Bx. Mixed Arenaceous Tuff &																													
			Tuff Fragmental - Sil'd Pyritized			W				W/M								10%	15312	86	87.5	1.5	.005				.01					
			87.5 - 89 Dark f-med.																													
			grained Arenaceous tuff w/ large			W				M								5%	15313	87.5	89.2	1.7	.003				.01					
			angular disrupted zones of ser.																													
			alteration and finely lam. dust tuffs																													
			Bedding @ 55° - 60° to CA.																													
			Pyrite increasingly fract controlled																													
			@ 89m - increasing fract @ 51° to CA.																													
			- 89 - 89.5 Thin bedded dust			M				M								10%	15314	89.2	90.75	1.55	.003				.01					
			tuffs arenaceous tuff. - py in bedding																													
			// fract. Bedding @ 50° to CA																													
			89.5 - 90.75 Section thin																													
			bedded ser alt., bx dust tuffs & fine																													
			felsic tuffs. Py on fracts & subll																													
			to dust tuffs. Strong late calcite																													
			tensions fract @ 30° to CA. Bedding																													
			@ 50° to CA & ⊥ to tension vns																													
90.75	111.65		Massive Hbld Andesitic Tuff																													
			- Med. ser. alt'd & saussuritized					W		M								Tr	15315	90.75	94	3.25	<.001				<.01					
			massive Andesitic tuff w/ 7%					W		M								Tr	15316	94	97	3	<.001				<.01					
			irr. anhedral chl. alt. Hbld phenos			W/M		W		M								<1%	15317	97	100	3	<.001				<.01					
			interstitial to anhedral ser. alt. tuffs			W/M		W		M								1%	15318	100	103	3	<.001				<.01					
			Regular 2mm - 3cm sharp walled																													
			Qtz. Calcite veins @ 55° to CA. from																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
90.75	111.65		Massive Hbld Andesite Tuff (cont)																													
			92.2m - Some frag of			W		M/S		W/M								<1%	15319	103	106	3	<.001				<.01					
			wall rx to 96.8m			W		S		W								1%	15320	106	109	3	.003				<.01					
			93.44 - 94.24m Flow banded					S		W/M								1%	15321	109	111.65	2.65	<.001				<.01					
			black healed Qtz. sericitized shear																													
			@ 10° to CA. cut by strong																													
			Calcite fract. sets @ 55° to CA.																													
			97-97.4, 102.56-102.7m																													
			Zones of Bx with strong silicification																													
			spy flooding & veining ~ 8% spy/Calcite vnl																													
			108.3 - 108.7m - shearing @ 5° to																													
			CA - calcite healed.																													
			- minor bx & chl healing throughout																													
111.65	114.7		Breccia - pyritic, Black, maroon to			S		M		W/M			.5% Aspy					10%	15322	111.65	113.2	1.55	.003				<.01					
			- Breccia composed of large thin			S		M		W/M			.5% Aspy					10%	15323	113.2	114.7	1.5	.005				.01					98
			bedded pylon dust tuff, Hbld																													
			Andesitic tuff and fine frag.																													
			breccia w Frag/tuff/Calcite frag.																													
			- strong py ~ 10%, .5% Aspy																													
			113.4 - 114 - Graphite polished																													
			shear @ 5° to CA - Slick. @ 60° to ch.																													
114.7	127.2		Massive Hbld And Tuff.			W/M		M/S	M	M/S								2-3%	15324	114.7	117.2	2.5	.002				<.01					100
			- Pervasive ser. & mod. chl alt			W		M	W	W								1%	15325	117.2	120.2	3.0	.001				<.01					
			& calcite shattering obscures texture			W/M		M		W/M								1%	15326	120.2	123.2	3	<.001				<.01					
			- stronger ser alt than above by																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
114.7	127.2		-Cr. Hbd. Andesite tuff a L																													
			-123.2m - Tuff is cr. grained			M		M/S		M								1%	15327	123.2	126.2	3	<.001				<.01					
			-heavily ser/chl altered, finely																													
			shattered w Silica flooding, wk Bx			M		M/S		M/S								2%	15328	126.2	127.2	1	<.001				<.01					
			in some sect. Fine Calcite fract.																													
			127.1 Black Argillaceous shale																													
			Qtz Alb veinlets @ 55° to CA.																													
			Fault Zone (Sheared @ all angles to CA)																													
127.2	132.5	Fault	Shrd Brecciated Tuff Fragmental			M/S		S		S								2%	15329	127.2	128.7	1.5	.062				.01					
			-Leucocratic tuff fragmental w	127.5	130.5	M/S		S		S								1%	15330	128.7	132.5	3.8	<.001				.01					85%
			strong chl/ser/black in Bx matrix																													
			which has been heavily sheared																													
			& rebrecciated. Some small Arg. Frag.	133.6	136.65																											95%
			Black graphitic ser shrs @ 30° to CA																													
			137.05 1.8 metres core ground	136.65	139.7																											40%
			Gouge @ 129.2 (10cm), 130.26 shrd @ 75° to CA																													
132.5	141.8		Brecciated Leucocratic Tuff.																													
			-Frag. leucocratic & aphanitic			M		S		M/S								3-4%	15331	132.5	135.5	3	<.001				.01					
			due to Qtz. ser alteration			M		S		M/S								3-4%	15332	135.5	138.5	3	<.001				<.01					
			Frag. Angular w chl healed aph. frag			M		S		M/S				Tr.				2-3%	15333	138.5	141.5	3	.006				.30					
			in a Qtz/py/chl/frag matrix. Fine																													
			alteration banding and rebrecciation in some																													
			frag. Original rock had frag. sections																													
			-py only in matrix & fract, RQD ~ 15%																													
			-Open Sect. @ 55° to CA. - not held																													
			-Chl. in bx matrix ends ~ 144																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Ser	% Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			-140.8 First trace of Cpy																											
141.8	162.8		Sil'd & w/lly Bx Cr. Hbd felsic Tuff																											
			- possibly some fragmental section			S		M		M		Tr.				<2%	15334	141.5	144.5	3	.015				.35					100%
			very silicified, felsic frag. visible			S		M		M		<1%				1%	15335	144.5	147.5	3	.027				.61					
			as sericite only w/mod. Cpy & py			S		M		M		<1%				1%	15336	147.5	150.5	3	.010				.42					
			dom. in frac. & in sil'd matrix of			S		M		M		Tr.				1%	15337	150.5	153.5	3	.014				.41					
			Bx sections. Mafics chl. altered.																											
			Tuff generally leucocratic - mottled gray																											
			- more fine shattering than silica bx																											
			-148.4 5 mm Qtz vns @ 85° to CA																											
			- very minor late calcite healed fracs																											
			Frac. - Only mafics chl. altered			S				M		<1%	Tr.	MoS_2		1%	15338	153.5	156.5	3	.012				.35					
			- sphalerite [illegible] in late Qtz calcite			S				M		Tr.				<1%	15339	156.5	159.5	3	.015				.32					
			frac. - [illegible]			S				M		Tr.				3%	15340	159.5	162.8	3.3	.067				.16					
			154.95 3cm Qtz vein @ 65° to CA.																											
			offset 1cm by 10° to CA late Qtz Ca. frac.																											
			- shrd frac @ 30° to CA. -																											
			- sulphides dom. in frac., Qtz calcite @ 5° CA																											
			- 153.5-162.8 leucocratic/aphanitic																											
			chl/ser spotted tuff - mod. shattered																											
			strongly silicified w/ py clusters in Qtz. py.																											
			healed frac. - variable texture & color																											
			- protolith obscured by silicification																											
			Brown patches @ 155.43 & 156.7 possible																											
			hornfelsed tuff or rite fragments																											
			-159.37 1cm Qtz. Alb vein @ 60° to CA																											

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Ser	% Pyh	% Cp	% Ga	% Sp	% Gr	% Px	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
162.8	171.5		Cr. Tuff Arenite / Hbld Tuff Fragmental																											
			-162.8-163.4 1cm frag. of felsic			M S		S		M		1%				3-4%	15341	162.8	165.8	3	.013				.31					
			tuff cont. bg. aphanitic Qtz. ser. alteration																											
			-163.4 - 164.04. Cr. frag. of hornfelsed																											
			tuff arenite & black argillite in a hbld																											
			tuff matrix. Hornfelsed frag. cut by																											
			ser. alt. Qtz and later Qtz. Alb/calcite																											
			fract. & gash filling, Arg. frag. gash fract.																											
			-Hbld chl alt. - pervasive ser. alt., trace py																											
			164.04 - 165.05 Aphy sill, gn																											
			fine/g shattered & bx tuff, Cpy in bx zones																											
			165.05 - 171.5 Wk Brecciated sil, py																											
			hbld mixed hornfelsed tuff arenite																											
			frag, Arg. frag. & Hbld Andesitic tuff frag.																											
			-stronger diss. py in hornfelsed frag.																											
			-cpy py veinlets & blebs in 10cm																											
			silica bleached bx f.gr. frag. zones																											
			-Cpy, MoS2, py, Qtz veinlets & cut																											
			earlier Sil. bleached / diss. py bleached Bx			S		S		M		2%				4%	15342	165.8	168.8	3	.015				.45					100%
			-lower et. Qtz. py, MoS2 healed Bx			M S		M		M S		1%				3-5%	15343	168.8	171.5	2.7	.012				.39					
171.5	177.5		Massive V.f.gr. - Aph. Andesitic Tuff			S	M	W		W M		Tr.				1%	15344	171.5	174.5	3	.005				.20					
			- textures obscured by alteration			S		M		W M		Tr.				3-4%	15345	174.5	177.5	3	.006				.12					
			- stronger yellow gn. Arg. alt. adj Bx			S	W M	W		M		1%				5	15346	177.5	179.5	2	.008				.17					
			& shattered Qtz py calcite clay zoned fract.																											
			Also cuts bn speckled fract. hornfelsed																											
			tuff arenite sections. 172.8-173.5																											

Core Data

NEWHAWK GOLD MINES LTD. Project: Sulphurets Drill Hole No. S91-390 Page 13 of 23

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
171.5	179.5		Massive tuffs cont:																													
			176–179.5. Tuff: fine lapilli bg			S	w	M		M								3%	15347	179.5	180.5	1	.114				.09					
			fine black specs. @ 40° & 20° to CA.																													
			10cm cr fragmental (comp?) @ 177.82																													
			Sharp ctse @ 70° to CA.																													
179.5	193.8		Massive Cr. Felsic Tuffs																													
			– light gray finely fract. speckled																													
			Hold Rodonite Tuffs altered by																													
			strong silicification & sericitization																													
			altered matrix & groundmass. Fine disc			S	w	M		M								2	15348	180.5	182.5	3	.005				.06					
			py throughout w. blebs of py minor cpy			S	w	S		M								3	15349	182.5	186.5	3	.006				.10					
			in silic'd bx zones			S		M		M								1-2	15350	186.5	189.5	3	.030				.14					
			179.5–179.65: large irreg. qtz			S		M		M								[illegible]	15351	189.5	191.5	2	.005				.10					
			calcite veining w. blebs of cpy & Zoc			S		M		M								3	15352	191.5	193.8	2.3	.007				.12					
			contains wavy stylolitic banding of sericite																													
			cpy – Occasional 1cm fragments																													
			– stronger overall chl. alteration																													
			– minor fine stockwork chl. py. qtz veins																													
			– minor late calcite healed fractures																													
			– stronger py flooding in the few chl, ser, calcite																													
			healed shatter zones – 1–2% disse																													
			fracture controlled py. Pervasive silicification																													
			& selective sericitization (hold. matrix) of																													
			the med. gr. felsic tuffs, tr. cpy																													
			– Fract 50°–60° to CA – clean																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			– shear @ 193.8 @ 35° to CA																													
193.8	205.3	Dyke like	Massive Fine Grained Andesitic Tuff																													
			193.8 – 193.9. Transitional mod. gr. frag. contact zone. Mixed frag. biotitic? tuff & clear clasts, layered																													
Black may be faulted into			felsic tuff frag. @ 55°-60° to CA																													
			193.9 – 205.3 Massive w/ll																													
			silid & altered f.gr dk gr bi tuff																													
Si. py alteration			minor late Calcite tensiongashes &			—		w		W								T..	15353	193.8	196.8	3	<.001				.01					100%
			minor calcite fract sets @ 50° to CA			—		w		W								<1%	15354	196.8	199.8	3	.003				<.01					
			198.93 – 199.35 Fine pale gr.			—		w		W								Tr	15355	199.8	202.8	3	<.001				<.01					
			fract controlled mod. ser. alteration			—		w		W								Tr	15356	202.8	205.3	2.5	.003				.01					
			3% py – Mabel to chl to ser.																													
			– fract Generally ~ 50° to CA.																													
			– lower at @ 45°-55° – sharp.																													
205.3	219.45		Silicified Cr. Felsic Fine Tuff																													
			205.3 – 205.9 Heavily pyritic																													
			Qtz flooded, banded & shrd fragmental																													
			contact. Sharp upper cont @ ~55° to																													
			CA 205.9 – 206.6. Br. pale																													
			ser. altered Tuff frag. silid, small			S		M		S								7%	15357	205.3	206.6	1.3	.014				.14					
			orig. frag. Shrd by late calcite veins @																													
			to CA. – 2-3% py			S		M		S								5%	15358	206.6	209.6	3	.026				.42					
			206.6 – 219.45 Gray finely altered			S		M		S								7%	15359	209.6	212.6	3	.012				.26					
			totally Qtz flooded Calcite			S		M		S								5%	15360	212.6	214.45	1.85	.011				.26					
			– lower cont. sharp & shrd @ 24° to CA																													
			– probably @ late fault contact																													

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Project: Sulphurets

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
215	233.5		Sil'd Bx Frag. Tuff Cont.																													
			— 216.8–217m Granular gouge in																													
			irreg. shatter zone @ 0° to CA																													
			— minor shattered veins in sil'd																													
			f. tuff. No cohesive fracture zone																													
			— Rounded [illegible]																													
			— 222.7–222.8 1cm wavy pyhotite																													
			[illegible]																													
			[illegible]																													
			[illegible]																													
			227.3–227.5 Large Bx																													
			[illegible]																													
			2 spotty [illegible]																													
			[illegible]																													
			227.3–228.8 Dark [illegible] Bx			S				M				4%	Tr.	MoS2		7-9	15367	228.8	231	2.2	.015				.25					
			possibly [illegible]																													
			which has been shattered & by C [illegible]																													
			[illegible]																													
			has been silica healed, refractured																													
			& [illegible] Pyhotite [illegible] Pydiss in																													
			frag. [illegible] but heavier in later																													
			[illegible] silica [illegible]																													
			— 228.8 Silic Sil'd Andesite																													
			Tuff. Fragmental. Finely Bx & shattered																													
			[illegible]																													
			— py diss & fract controlled. cpy @ 227.45																													

NEWHAWK GOLD MINES LTD. Project: Sulphurets Drill Hole No. S-91-390 Page 15 of 23

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
214.45	215	Dyke	Massive Fgr. Hbld Andesite Dyke																15361	214.45	215	0.55	.002				.04					100%
			- 15% fgr. Hbld phenos in aphanitic																													
			dark green groundmass - not silicified																													
			- Cut by irreg calcite veinlets																													
			- local fracture zones - no																													
			sulphides, Dark green																													
			- lower cont. sharp @ 15° to CA, cl.																													
			cut by late calcite veins @ 15° occupied																													
			by Qtz calcite veins - irreg of 1-2 cm																													
			in size; cl. veins broken after thrusting, are																													
			broken, brittle movement																													
						S				M				tr				8-10	15362	215	218	3	.033				.23					100%
215	235.5		Silicified Brecciated Tuff			S				M				tr				8-10	15363	218	221	3	.047				.17					
			- As section texture is totally			S				M				tr				8-10	15364	221	224	3	.058				.22					
			destroyed by Quartz sericite			S				M								6-8	15365	224	227	3	.017				.14					
			Alteration of a brecciated pyroclastic			S		M		S								4-5	15366	227	228.8	1.8	.007				.15					
			original rock type is unknown																													
			- pale gray micro brecciated and																													
			stockworked Qtz. pyrite altered felsic																													
			lapilli tuff? Check Tuff																													
			fine visible in some sections																													
			- fractures & fracture sets @ 40° to CA																													
			- tr cpy - Overall 5-20% py																													
			- py finely disseminated in silicified																													
			some mild felsic groundmass in Tuff																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Pk	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			-py stringers often @ 0° to CA																													
			0229.45 1 cm py banded Qtz																													
			vein @ 60° to CA. Fine, diss MoS2																													
			on adj late fract & late fracture controlled																													
			Cpy.																													
			-231.9–232.3 Strong unbeaded			S		W		M				Tr	.5%	MoS2		5-8	15368	231	233	2	.008				.13					
			slattering @ 45° to CA, chlor. clicks			S		W		M				Tr	.5%	MoS2		5-7	15369	233	235.3	2.3	.015				.13					
			-232.4–233.3 Strong fragmental																													
			texture w superimposed silicification																													
			& later controlled shattering. Smeared																													
			tuff accents? frag. Zones of stronger																													
			fract. controlled py - fine diss MoS2																													
			mang bucceanitic apt speckly gn bx																													
			frag towards Andesitic Dyke						W									5	15370	235.3	235.42	0.12	.007				.04					
			- fine & fold flooding in silica matrix																													
233.3	235.42	Dyke	Hornblende Andesite Dyke																													
			True width 7.6 cm. Clay																													
			sheared c/c @ 60° to CA. Fine																													
			subhedral Hbld. Acicular yellow rocks																													
			- some included xfgn. Hbld Ad.																													
			frag. Zoned margins - vitric glassy																													
			chards w green aphanitic groundmass																													
235.42	245		Silicified Brecciated Fragmental Tuff			S		W		M				Tr	Tr	MoS2		6-8	15371	235.42	238	2.58	.011				.13					
			Massive gn. tuff cut by dark siliceous																													
			bx matrix & dk mottled frag of sil'd py																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
235.42	245		flooded possibly tuff arenite frag.																													
			in a more massive equigranular																													
			m.r. alt. felsic tuffs. Alleat by																													
			py-silica healed veining & breccia																													
			237.8-238 Possible Qtz-py healed																													
			tectonic bx. Variable angular to rounded																													
			frag. lgr. lithic matrix frag. cut by later				S				M				Tr.	Tr/M	Sp		8%	15372	238	241	3	.004				.16					
			silica veining & flooding. Similar bx @																													
			240.1-240.32, tr cpy, late calcite vn				S	W			S								5-10%	15373	241	244	3	.010				.06					
			- Strong shattering of siliceous zone																													
243	244.35	Fault	from 240.6 - 242.25, 243-																													
			244.35. Shattering ~11 to CA. Sey some																													
			dayey granulated dk gy py silf flooded tuff																													
245'	248.53		Massive Aphanitic Dust Tuff																													
			Pale gn. aphanitic bx. Very minor																													
			specs of chl. py. Finely shattered				S	W	S		M								2-3	15374	244	247	3	.008				.01					
			& chlorite calcite healed. (60-75° to CA)																													
			Faint bedding? ~45° to CA				M/S		S		M								2	15375	247	250	3	.005				.03					
			- increasing chl. healed shattering																													
			- 246.73 - 3cm banded Qtz Calcite																													
			vein @ 70° to CA																													
			- 246.77 - 247.6m Bx Fragmental																													
			tuff, variable aph & tuff frag, Chl. bx																													
			- 247.6 - 248' - Chl bx aphanitic gn tuff																													
			- 248 - 248.53 Chl bx. f.gr gn																													
			lapilli tuff. Bedding? @ 70° to CA																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Seri			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
245.53	256.9		Mixed Aphanitic Dark Tuff &																													
			Fragmental Tuff. - Chl gn color																													
			- med. gn aphanitic, sil'd, wkly chl shattered																													
			tuff and Cr. fragmental tuff. Textures																													
			nearly destroyed by silica/chl. alteration			S		S		M								3	15376	250	253	3	.003				.04					
			- 3-4% diss & dem Cpy controlled py																													
			- Qtz/calcite fracture sets @ 55°-65° to CA																													
			- 252.4 Possible flow banding of			S		M/S		M								2-3	15377	253	255.5	2.5	.003				<.01					
			frag. @ 35° to CA. Mottled texture																													
			- 254.6 ± Finely shattered calcite			S		S		M								2-3	15378	255.5	256.9	1.4	.006				.01					
			chl healed, textures destroyed by alt.																													
			- relic Hbd in some frag. and more																													
			massive, scattered irreg Qtz calcite veins																													
			- possible flow b/o @ 256.45, gradational																													
			- 256.87 Low Qtz vein w massive fract																													
			controlled Py @ 60° to CA																													
256.9	257.35	Vein	Magnetite Vein						S									10%	15379	256.9	257.35	.45	.008				.05					
			Black calcic Magnetite flooded																													
			zone @ 0° to CA. Black red. frgm.																													
			calcareous mag. & Py flooded & frag.																													
			wkly calcareous siliceous br. Magnetite vein																													
			cut by late 1-5mm, 70° to CA calcite/																													
			qtz tension veins. 10% py, <1% cpy																													
			- Lower ct. shrd @ 20° to CA, br calcite																													
			- Upper ct. shattered																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	ser			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
257.35	263.07		Mixed beds of Green Aphanitic Frag.			M		S	W	W/M				Tr.				4-6	15380	257.35	260	2.65	.014				.03					
			and Cr. Andesitic Lapilli Fragmental																													
			- Matrix of mottled fragmental			M		S		W/M								3-5	15381	260	263	3	.006				.01					
			sections pink K. feldspar flooded			M		S		W/M								3%	15382	263	266	3	.013				.08					
			- 5-8% diss py in fragmentals			M		S		W/M								3%	15383	266	269	3	.009				.02					
			257.35 – 259. Mottled																													
			aph light green shattered chl																													
			healed tuff. Chlorite shattering &																													
			carbonate / qtz. veinlets in 258.6																													
			veins @ 25° to CA. A second occurrence																													
			of massive v.f. gn. py floods section																													
			259 – 260.8 Massive Aph. lt.																													
			Kh. gn. silicified tuff. Fine calcite																													
			healed shattering & tension gashes, 45° slope																													
			260.8 – 261.1 Dark Fragmental																													
			frag. in pink gn. K. feld. flooded																													
			matrix, stringer chl in frag, 2% diss py																													
			261.1 – 262.1 Massive f.gr.																													
			gn frag. tuff. - 2-3% cu diss py.																													
			- Incrct 7cm of chl, mag, py																													
			si flooded Bx. K feld flooding & 40% cc																													
			in a 5cm Hybd massive Andesitic Tuff																													
			262.1 – 263.07 - Massive f.gr. gn. tuffs																													
263.07	265.5		Chlorite / Magnetite Mottled Tuff																													
			Fragmental Breccia																													

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Ser	K fld	% Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
26307	265.5		Cr. mixed Heterolithic Andesitic tuff																												
			fragmental - rel brecciated & dark			M		S		M	M		Tr				4-5%	15384	269	272	3	.005				.01					
			silica K fld. chl flooded and healed																												
			w pale pink siliceous K fld & chl mag			M		S		M	M		Tr				4-5%	15385	272	275	3	.004				.01					
			- mottled tex. tuff - late Qtz/fdsp																												
			tension fractures truncate @ Py Chl.																												
			Magnetite flooded zones. Chloritic																												
			fragments x cut and replaced w																												
			cr. stringers & clots of Py-Tenn																												
			flow banding of Andesitic Frag																												
			- Tr cpy in mag/chl zones																												
265.5	283		Andesitic gn tuff Fragmental																												
			- some large Chl rimmed avoid																												
			frag. & fine fragmental 268.15 -			M		W/M		M	M		Tr				3-5	15386	275	278	3	.005				.02					
			268.6. Pyrite introduced in			M		W/M		M	M		Tr				4-7	15387	278	281	3	.010				.07					
			fractures w. Calcite & Mag x cut.			M/S		W		M	M						3-5	15388	281	283	2	.004				.03					
			Ser/chl altered Hetol Andesitic tuff																												
			fragmental																												
		Fault	271.62 Slow @ 20° to CA, chlorite																												
			gouge for 5cm, Tr cpy in Qtz cal.																												
			- minor 1cm Qtz calcite veins @ 75° to CA																												
			277.6, 277.78 5cm black																												
			calcic magnetite zones w disseminated																												
283	286.35		Magnetite Flooded Andesitic			W/M		S		M	M		4%				3%	15389	283	286.35	3.35	.012				.05					
			Tuff Fragmental - Dark mottled																												
			green medgn (1cm) chl. ser alt. fragmental																												

Core Data

NEWHAWK GOLD MINES LTD. Project: Sulphurets Drill Hole No. 591-390 Page 22 of 23

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	Ser			% Pyh	% Cp	% Ga	% Sp	% Gr	% py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
286.35	301		Mottled Leucocratic Cr Andesitic Fragmental			M/S		S	W	M								5%	15390	286.35	288.25	1.9	.003				.03					100
			-Chl, ser, sil & fold flooding of a leucocratic tuff. Frag.-Mottled shades of dk gn. -finely shattered & silicified.			S		S	W	M								3-4%	15391	288.25	291.25	3	.000				.06					
			-288.25 – 288.5 Massive aphanitic lm dust tuff w/ 6cm sil banded breccia @ 288.28 with frag @ 75° to CA. Qtz cut lm later Py Qtz/calcite veins @ 75° to CA. -Zone has 8-10% disp			M		S	W	M								3-4	15392	291.25	293	1.75	.023				.02					
			288.5 – Mixed Heterolithic chl, ser, sil & fold flooded Andesitic tuff frag. Matrix [illegible] -mottled chl, ser flooding dk gn.																													
			-289.48 3cm ribbonned Qtz/calcite vein @ 60° to CA - diss magnetite																													
			-strong black Magnetite/calcite zones @ 290.73, 291.2-291.5, 292.5-293.15, Zones @ ~95° to CA																													
			-293-294.4 -20% crf amphibole & frag. contrell of pg in silicified frag			S		S		M								15	15393	293	294.4	1.4	.050				.21					
			-294.4 – 294.62. Magnetite flooded red. Hem, cpy, py in zone in low [illegible] with vein																													

NEWHAWK GOLD MINES LTD.

Project: Sulphurets

Drill Hole No. 591-390 Page 23 of 23

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Ser.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Px	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
28635	301		294.4 – 301 Mixed cr. lithic tuff			M/S		S		M				Tr				3-5	15394	294.4	296.4	2	.017				.13					
			– fully flowbedded Cr. fragmental tuff																													
			& lenticular fragmental tuff with			M/S		S		M								3	15395	296.4	298.4	2	.010				.11					
			zones of massive wldy frag. lithic andesite																													
			tuff. Zones of Magnetite/calcite			M/S		S		M								3	15396	298.4	301	2.6	.008				.08					
			throughout section – 10% of each																													
			– dark magnetite veins, no, cons																													
			lenticular horizontal																													
			– minor late calcite veins																													
			veins @ 75° to CA.																													
			301 EOH																													

NEWHAWK GOLD MINES LTD.

Diamond Drill Hole Record

Project: Sulfside

DEPTH	BEARING	DIP	SURVEY TYPE
COLLAR	—	-90	Level
106 m	?	-89	Acid
161 m	—	-90	Acid
200	065	-88°	Tropari

PROPERTY: Sulphurets
CLAIM: TEDRAY 9
LATITUDE: 6262345.521
DEPARTURE: 421757.453
ELEVATION: 1261.819 m

LENGTH: 206.7 m 678'
CORE SIZE: BW TW
RECOVERY: 100 %
STARTED: July 29/91
COMPLETED: July 31/91

HOLE NO.: 591-391
SHEET NO. 1 of 13
LOGGED BY: M. Tindall
SAMPLED BY: B. Elliot
PURPOSE: Test W. end Sulphurets Au Zone

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py
0	3.0		OVERBURDEN															
				3.0	6.0	S		W										5
3.0	16.3		Intermediate Tuff	6.0	9.0	M		W										5
			- f gr equigranular lt	9.0	12.0	M-S		W										7-10
			grey-green to tan variably	12.0	15.0	M		W										3-5
			slctd tuff many sections	15.0	16.3	M		W										3-5
			hvly fractured to brecciated															
			w 1mm-1cm py veinlets															
			along fracts. Some sections															
			to 15 cm heavily pyritized															
			w semimass. - wispy stringers															
			py minor qtz-calcite															
			tension veins (1-5mm) @															
			all angles to C.A.															
16.3	28.9		Mixed Mafic / Intermediate Tuff															
			- fine-med gr equigranular interbedded															
			mafic & intermediate-felsic															
			tuff. Short interbedded															
			sections of dk grey-black															
			mafic tuff & lt grey green-															
			tan intermediate tuff. Some															
			w very sharp contacts some															
			gradational over 6-30 cm															

Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
5397	3.0	6.0	3.0	.010				.01					100
398	6.0	9.0	3.0	.008				.01					100
399	9.0	12.0	3.0	.021				.06					100
400	12.0	15.0	3.0	.038				.02					100
401	15.0	16.3	1.3	.004				.01					100

9-15 = 6m @ .030 opt Au .03 % Cu

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-391 Page 2 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			most wkly slcfd & wkly																													
			chlrtzd. Some sections																													
			of fragmental w angular																													
			frags of tuff in tuff																													
			matrix, variable py content																													
			- Sharp, broken upper contact @	16.3	19.3	w-m		w										3-5	15402	16.3	19.3	3.0	.003			.01					100
			16.3 m between intermediate	19.3	22.3	m		w										~5	403	19.3	22.3	3.0	.003			<.01					100
			Tuff uphole & mafic tuff	22.3	25.3	m-s		w										5-7	404	22.3	25.3	3.0	.003			.01					100
			@ ~40° to C.A.	25.3	28.3	m		w										7-10	405	25.3	28.3	3.0	.013			.01					100
			- 16.6 sharp contact @ 60° to C.A.	28.3	29.9	m		w										5-7	406	28.3	28.9	0.6	.010			.01					100
			- 21.05 sharp contact @ 65°																													
			intermediate tuff uphole mafic																													
			downhole																													
			- 21.75 sharp contact mafic																													
			Tuff uphole @ 45° to C.A.																													
			- 22.1 - 23.0 10% large (1-4 cm)																													
			angular frags black mafic																													
			tuff in lt green interm.																													
			tuff.																													
			- Intermediate tuff is																													
			mixture of ~60% white Kspar &																													
			30% qtz w 10% py & mafic																													
			minerals. Kspar identified by staining																													
			- Mafic Tuff is a																													
			Trachytic mixture of 40%																													
			Kspar & 60% mafics mostly bbb																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 3 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
28.9	31.6		Brecciated Tuff	28.9	31.6	S		W							~15	15407	28.9	31.6	2.7	.021				<.01					100
			- v.fgr - aphanitic																										
			lt grey slcfd tuff w >60%																										
			Kspar by staining. Unsure																										
			if Kspar 1° or 2°. Heavily																										
			fractured & brecciated w																										
			5mm - 2cm frags. Variable																										
			py as hairline fracture																										
			fillings & breccia matrix																										
			- very minor mafic content																										
			- Upper contact of breccia																										
			gradational over 60 cm																										
			lower contact sharp &																										
			irregular																										
31.6	53.9		Mixed Intermediate & Mafic Tuff	31.6	34.6	M		W							7-8	408	31.6	34.6	3.0	.056				<.01					100
			- variably slcfd v.fgr																										
			- fgr interbedded lt green																										
			Intermed to felsic tuff & blk - dk grey																										
			mafic tuff; both lt &																										
			dk tuffs are > 40% white Kspar																										
			- variable py content along																										
			fracts & in veinlets to 8mm																										
			most core minor py moss																										
			& unfractured. Minor qtz																										
			calcite filled tension fracts																										

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 4 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- 35.7 Sharp contact @ 85°	34.6	37.6	W-m		W							4-6	15499	34.6	37.6	3.0	.026				<.01					100
			to C.A. mafic tuff below	37.6	40.6	W-m		W							3-5	410	37.6	40.6	3.0	.009				<.01					100
			Inter. Tuff.	40.6	43.6						<1%				3-5	411	40.6	43.6	3.0	.007				.03					100
			- 36.9 - 37.3 fragmental Tuff																										
			15°° blk angular - Subrounded 2 -																										
			10mm tuff frags in lt grey																										
			v. f gr Inter. tuff matrix																										
			Sharp upper contact @ 70°																										
			- 37.4 graded bedding in																										
			f - med gr mafic tuff																										
			Showing fining (Tops) uphole																										
			bedding @ 73° to C.A.																										
			- 39.8 mass py cpy																										
			Vn 2.3 cm wide @ 20°																										
			to C.A.																										
			- below 43.6 silfera increases	43.6	46.6	M		W							5-7	412	43.6	46.6	3.0	.012				.01					100
			downhole mafic grains	46.6	48.2	M		W							5	413	46.6	48.2	1.6	.024				.02					100
			eroded to obscured py																										
			content increases but still																										
			variable																										
			- 48.2 - 50.4 Core strongly			S		W							10-12	414	48.2	50.4	2.2	.036				<.01					100
			sfd orginal grains obscured																										
			heavy py content as large																										
			5mm - 2 cm irregular clots																										
			& 3mm - 8mm Vn'lts minor																										
			fracts no bx minor sericite																										
			in matrix																										

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-39 Page 5 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
				50.4	53.4	S		W							7-8	1545	50.4	53.4	3.0	.021				<.01					100
53.9	62.3		Intermediate Tuff	53.9	53.9	S		W							5	416	53.9	53.9	0.5	.013				<.01					
			- broken upper contact; f.gr-																										
			med gr to wkly porphyritic	53.9	56.9	M		W							3-5	417	53.9	56.9	3.0	.011				<.01					
			lt grey-green; most w <10%	56.9	59.9	M		W							4-6	418	56.9	59.9	3.0	.008				.01					
			mafic minerals; mixture plag	59.9	62.9	m		W							7-8	419	59.9	62.9	3.0	.001				<.01					
			& white Kspar ~50-50; porphyritic	62.9	65.9	M									8-10	420	62.9	65.9	3.0	.001				.01					100
			sections w rounded 1-3mm																										
			plag phenos in plag-Kspar																										
			groundmass. some w ~10%																										
			qtz as 1-2mm phenos, all																										
			mdly sltd w corroded																										
			mafics & obscured feldspar																										
			grains; may be some																										
			2° Kspar. most mass w.																										
			v. minor qtz calcite filled																										
			tension fracts. Variable																										
			py most as <1mm rounded																										
			disseminations. minor py																										
			veins. Kspar determined by																										
			staining																										

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 6 of 13

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
62.3	69.4		Fragmental Tuff	65.9	68.9	M												1-15	15421	65.9	68.9	3.0	.001				.02					100
			v fgr - aphanitic lt gry-	68.9	71.9	M												5-7	422	68.9	71.9	3-0	.001				.02					
			green to med gry intermed-																													
			felsic tuff w 2mm - 3cm																													
			subrounded - subangular, waxy, med																													
			green, strongly sericitized fragments																													
			widely scattered through core,																													
			some minor sections w 10% 1mm																													
			hbld in matrix most very																													
			little mafic content variably																													
			py as fine disseminations																													
			fine fracture fillings & veins																													
			& rimming & partially																													
			replacing some frags.																													
			- Indistinct upper contact																													
			- variably sicfd most																													
			mdt w variable white K feld (20-40%)																													
			most probably 2°.																													
69.4	71.3		Intermediate Tuff																													
			- aphanitic - f gr equigran.																													
			to wkly porphyritic lt green																													
			<10% mafics as 1-2mm																													
			sericitic & chloritic phenos																													
			minor 1-2mm sub rnd plag																													
			phenos in a plag rich gnd mass																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-391 Page 7 of 13

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- Sharp upper contact @ 35° to C.A. indistinct lower contact																										
			- mdtly slcfd w. weak Kspar in gnd mass																										
71.3	73.9		Fragmental Tuff - As above	71.9	74.9	W									8-10	1543	71.9	74.9	3.0	.005				.02					100
73.9	96.0		Intermediate Tuff f-med gr gry green Ktal tuff w variable mafic content; most 20-30% mafic minerals, wkly-mdtly slcfd w 10-20% wh/gr Kspar unsure if 1° or 2°, most original textures intact. - variable py content most as very fine units some diss 1-3mm clots.	74.9	77.9	W									~5	424	74.9	77.9	3.0	<.001				.02					100
				77.9	80.9	W									~5	425	77.9	80.9	3.0	.002				.03					100
															~5	426	80.9	82.6	1.7	.007				.03					100
			82.6-82.9 very large irreg. clots mass py & cpy filling large fracts.			W					15-20				10-15	427	82.6	82.9	0.3	.128				71.00%					

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 8 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- mass py vein 84.7-84.8	82.9	85.9	W									10-12	1542B	82.9	85.9	2.0	.019				.0251					100
			- 85.8-85.95 mass py vein	85.9	88.9	W									5-7	429	85.9	88.9	3.0	.014				.0332					100
				88.9	91.9	W									7-8	430	88.9	91.9	3.0	.009				.0715					100
96.0	98.6		Porphyritic Tuff	91.9	94.9	W									8-10	431	91.9	94.9	3.0	.012				.0827					100
			med - grey green, porphyritic	94.9	97.9	W									~5	432	94.9	97.9	3.0	.011				.0443					
			w. 1-3 mm round white																										
			phenos. plag in a v.f.																										
			gnd mass Kspar, plag & mafic																										
			minerals. Indistinct upper																										
			& lower contacts. only wkly																										
			slcfd + chlrzd																										
98.6	123.7		Intermediate Tuff	97.9	100.9	W									6-8	433	97.9	100.9	3.0	.015				.0[illegible]					100
			- f - med gr equigranular	100.9	103.9	W									3-5	434	100.9	103.9	3.0	.009				.0[illegible]					100
			med grey mixture mafics,																										
			plag & Kspar. Compositionally																										
			same as above but not																										
			porphyritic																										
			- 99.7-100.0 mdtly foliated																										
			@ 60° to C.A. w mdt chlor																										
			sericite alta core not broken																										
			- below 101m some sections																										
			v. f gr - aphanitic but																										
			Compositionally similar to																										
			above description																										

NEWHAWK GOLD MINES LTD.

Project: _____ Drill Hole No. 591-391 Page 9 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- 102.6 - 109.3 m qtz	103.9	106.9	W											~5	1543	103.9	106.9	3.0	.014				.1736					100
			calcite veins & tension fractures	106.9	109.9	W											3-5	436	106.9	109.9	3.0	.016				.1926					100
			@ 90° angles to C.A. become common, and may be	109.9	112.9	W											5	437	109.9	112.9	3.0	.020				.1779					100
			up to 10% of short sections	112.9	115.9	W											3-5	438	112.9	115.9	3.0	.014				.1337					100
			(30 cm) of core; silicification	115.9	118.9	W							Tr				7	439	115.9	118.9	3.0	.016				.1546					100
			increases w. density of qtz	118.9	121.9	W											10	440	118.9	121.9	3.0	.020				.1396					
			veins most core only wkly	121.9	123.7	W											3-5	441	121.9	123.7	1.8	.016				.1035					
			sfcd.																												
			-121.05 - 121.2 m mass py vein																												
123.7	146.9		Mafic Tuff	123.7	126.7			M									2-3	442	123.7	126.7	3.0	.010				.1713					100
			@ 123.7 core becomes slightly	126.7	129.7			M									1-2	443	126.7	129.7	3.0	.009				.1605					100
			coarser grained & changes from	129.7	132.7			M									2-3	444	129.7	132.7	3.0	.010				.1[illegible]2					100
			med grey to med green	132.7	135.7			M									3-4	445	132.7	135.7	3.0	.012				.1632					100
			mafic content increases &	135.7	138.7			M									1	446	135.7	138.7	3.0	.016				.1405					100
			Tuff is ~ andesitic in comp.	138.7	141.7			M									2-3	447	138.7	141.7	3.0	.010				.1034					100
			- upper contact is indistinct	141.7	144.7			M									3-4	448	141.7	144.7	3.0	.012				.1663					100
			& gradational over ~ 30 cm	144.7	146.9			M									~5	449	144.7	146.9	2.2	.012				.1[illegible]					100
			- Core is wkly-mdtly chlzd																												
			& Trachytic w ~ 20% v.fgr white																												
			Kspar in grnd mass																												
			- 142.8 - 142.9 mass py																												
			vein @ 25° to C.A.																												

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 10 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
146.9	152.8		Brecciated Tuff	146.9	149.9	I								Tr				~20	15450	146.9	149.9	3.0	.022				.028					100
			@ 146.9 abrupt change	149.9	152.9	H								Tr				10-12	15451	149.9	152.9	3.0	.019				.0177					
			from mdly chlrzd mafic			H												12-15	452	152.9	154.9	2.0	.027				.0192					
			tuff to heavily fractured																													
			& brecciated variably slcfd, BK																													
			aphanitic tuff w/ large																													
			amts of py as hairline																													
			veins & breccia filling, traces																													
			cpy widely disseminated w/ py																													
			- a few minor sections f.gr																													
			mafic tuff unbrecciated & only																													
			wkly-mdly slcfd.																													
			- frags have very high Kspar																													
			content none in matrix of																													
			bx																													
			- Heavy silfctn ends @ 154.9m																													
			wk - mdt slcftn continues																													
			dwn hole to ~157.8m																													
157.8	163.3		Mafic Tuff	154.9	157.9	M												3-5	453	154.9	157.9	3.0	.018				.0171					100
			f.gr equigranular med gry-																													
			green xtal tuff w ~ 30%																													
			hbld xtals & 70% combined plag &																													
			Kspar. More Kspar than plag																													
			- Some sections v. fgr - aphanitic																													
			or cherty																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. S91-391 Page 11 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			156.5 - 156.8 Intermediate	157.9	160.9	W												2-3	1545A	157.9	160.9	3.0	.012				.045					100
			Tuff lt. green predom. feldspar																													
			w ~ 5% mafics. Sharp																													
			upper contact @ 80° to C.A.																													
			Sharp irregular lower contact																													
			@ ~ 45° to C.A.																													
			160.1 - 162.7 Fract/Shear Zone	160.9	163.9			W										1-2	455	160.9	163.9	3.0	.029				.043					100
			- Core broken, wkly - mdtly																													
			chloritic w weak chloritic																													
			shears @ 50 - 60° to C.A.																													
163.3	202.5		Mafic - Intermediate Volcanic	163.9	166.9													5-7	456	163.9	166.9	3.0	.045				.041					100
			- med grey v. f gr equigran	166.9	169.9													7-8	457	166.9	169.9	3.0	.021				.030					
			to porphyritic; porphyritic	169.9	172.9													7-8	458	169.9	172.9	3.0	.016				.029					
			phases w 15 - 20% 1-2 mm	172.9	175.9													8-10	459	172.9	175.9	3.0	.041				.037					100
			euhedral hbld phenos in v. fgr																													
			grndmass of white Kspar, mafics,																													
			qtz & plag; Some minor glots of																													
			round 1-3 mm plag phenos.																													
			- probably Trachy andesite																													
			in composition; Kspar by stain.																													
			- Variable py as diss 1-																													
			4 mm blebs & narrow veins																													
			- pyritized upper contact																													
			@ ~ 60° to C.A.																													

NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 12 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	SERI			% Pyh	% Cp	% Ga	% Sp	% Gr	% py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			- 176.4 - 182.4 core is	175.9	176.4													~5	15460	175.9	176.4	0.5	.033				.0661					100
			slightly more siliceous/sicfd.	176.4	179.4													10-12	461	176.4	179.4	3.0	.050				.0204					
			slightly lighter grey w more	179.4	182.4													5-7	462	179.4	182.4	3.0	.017				.0459					
			pyrite & has variable but	182.4	185.4													~5	463	182.4	185.4	3.0	.010				.0456					
			minor qtz-calcite filled,	185.4	188.4													5-7	464	185.4	188.4	3.0	.015				.0095					
			narrow tension fracts. @ all	188.4	191.4													~5	465	188.4	191.4	3.0	.015				.0342					
			angles to C.A.	191.4	194.4													~5	466	191.4	194.4	3.0	.014				.0431					
				194.4	196.4	W												5-7	467	194.4	196.4	2.0	.009				[illegible]					100
			182.5 - 186.2 Fracture Zone	196.4	199.4	W								<.5				~5	468	196.4	199.4	3.0	.006				.0381					
			- core mdtly broken w	199.4	202.4			W		W								5-7	469	199.4	202.4	3.0	.016				[illegible]					
			many dry, open fracts @	202.4	205.4													3-5	470	202.4	205.4	3.0	.017				.0[illegible]					
			15° & 30° to C.A. no sign of																													
			shearing																													
			- 197.2 1cm moss qtz vnlt																													
			- 194.2 - 196.4 core is																													
			wkly - hvly spotted w @																													
			blk silicate mineral 1/mm &																													
			has a few veinlets & clots																													
			of the same blk mineral																													
			some py blebs enclosed																													
			w. blk mineral which may																													
			be tourmaline.																													
			- 200.6 - 202.3 Fract. zone																													
			core broken @ all angles																													
			to C.A. w. many dry																													
			unsheared fracts.																													

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NEWHAWK GOLD MINES LTD. Project: _____ Drill Hole No. 591-391 Page 13 of 13

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
200.6	202.5		Fragmental Tuff	205.4	206.7			W										5-7	15471	205.4	206.7	1.3	.016				.527					100
			1% grey green fragmental w																													
			5% Subrounded - angular 3mm																													
			- 1cm med green intensely																													
			sericitized fragments in																													
			a v. fgr equigranular xtal																													
			tuff matrix of white Kspar,																													
			plag, qtz & mafics; <10%																													
			total mafic content.																													
			- wkly foliated w alignment																													
			of frags & mafics @ 25° to																													
			C.A.																													
			- broken upper contact sharp																													
			lower contact @ 65° to C.A.																													
202.5	206.7		Trachy Andesite																													
			med gry-green v. f. gr																													
			equigranular, mass. Intr.																													
			Vole w. White Kspar																													
			plag + 25-30% mafics.																													
			- wkly chloritic w																													
			variable finely diss py																													
			and minor 3mm - 1cm																													
			mass py veins																													
			- minor qtz calcite filled																													
			tension fracts. 206.7 EOH																													

NORTHAIR MINES LTD.

Diamond Drill Hole Record

Project: Sulphside

DEPTH	BEARING	DIP	SURVEY TYPE			
COLLAR	-	-90	Level	PROPERTY: Sulphurets	LENGTH: 210.4m 690'	HOLE NO.: S91-392
106.7m	?	-89	Corrected Acid	CLAIM: ED 1	CORE SIZE: BW TW	SHEET NO. 1 of 10
				LATITUDE: 6262950.018	RECOVERY: 100%	LOGGED BY: M. Tindall
				DEPARTURE: 422704.208	STARTED: Aug 2/91	SAMPLED BY: B. Elliot
200m	045°	-88	Tropari	ELEVATION: 1598.150	COMPLETED: Aug 4/91	PURPOSE: TEST Sulph Au Zone East End

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
0	7.6		OVERBURDEN																													
7.6	118.0		Trachy Andesite																15471	7.6	10.6	3.0	.07									
			-ufg-fgr mass, med	7.6	10.6			m										2-3	473	10.6	13.1	2.5	.011									
			-dk green, equigranular	10.6	13.1													2-3														
			mixture of mafic minerals &																													
			white K spar (by stain);																													
			Apparently very little plag.																													
			- Variably silicified some short																													
			sections foliated																													
			- variable py as fine disc																													
			blebs quartz & veinlets.																													
			-7.6 - 12.7 core badly broken																													
			& all angles to apparent																													
			Shearing probably zone of																													
			weathering																													
			-13.1 - 15.2 core lt grey-tan			H												1	474	13.1	15.2	2.1	.08			.098						
			strongly bleached & sicfd w																													
			aphanitic K spar (1° or 2°?) strongly																													
			brecciated w large angular																													
			frags in a qtz matrix many																													
			qtz healed fracts @ all angles																													
			very minor py as fine veins																													
			broken strong py appsl contact																													

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-292 Page 2 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			-Silicia decreases rapidly	15.2	18.2			M										~3	15475	15.2	18.2	3.0	.019				.0453					100
			below 15.2 to 16.1 strong	18.2	20.1			S										7-8	476	18.2	20.1	1.9	.066				.2187					
			qtz filled tension veining																													
			continues to 20.1 where it																													
			drops to minor very abruptly																													
			-17.2 - 20.2 core strongly																													
			chlrzd and strongly foliated																													
			from 19.0 to 20.1 @ 20° to																													
			C.A. Some semimass py																													
			along fol.; may be ductile																													
			shear																													
			-Below 20.2 core abruptly	20.1	23.1													2-3	477	20.1	23.1	3.0	.007				.174					
			becomes unfoliated mass,	23.1	26.1													4-5	478	23.1	26.1	3.0	.004				.08					
			wkly chlrzd f.gr Trachy	26.1	29.1													1-2	479	26.1	29.1	3.0	.006				.0678					
			andesite.	29.1	32.1													3-4	480	29.1	32.1	3.0	.002				.0489					
				32.1	35.1													3-5	481	32.1	35.1	3.0	.003				.0960					
			-@ 36.2 Core abruptly becomes	35.1	36.2													1-2	482	35.1	36.2	1.1	.007				.1193					
			mdslp-strongly sicfd dk green w/	36.2	39.2	M							Tr					4-5	483	36.2	39.2	3.0	.012				.14	1.1374				
			minor qtz-calcite veinlets	37.2	42.2	M							<.5					5-7	484	39.2	42.2	3.0	.029				.17					
			most @ 40-50° or 70° to C.A.	42.2	45.2	S							<1					4-6	485	42.2	45.2	3.0	.011				.20					
			many 3mm - 10mm subrounded-	45.2	48.0	S							<1					7-10	486	45.2	48.0	2.8	.028				.27					100
			angular clasts of white qtz																													
			variable fine irregular blebs																													
			& veinlets; cpy closely assoc																													
			w/ or in qtz veins																													

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 3 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			- 48.0 - 48.3 massive py vein @	48.0	48.3	S								Tr				70	1548	48.0	48.3	0.3	.028				.10					
			65° to C.A.	48.3	49.7	W		M						Tr				3-4	1548B	48.3	49.7	1.4	.006				.16					
			49.7 - 55.5 core mdtly																													
			broken, minor small qtz vnlts,																													
			minor 1-15 cm irregular																													
			qtz vns minor fine diss cpy																													
			large irregular clots & 1-5mm																													
			cpy vnlts in or adjacent to																													
			qtz veins. Alteration &																													
			cpy mnz. stops abruptly																													
			@ 55.9m.																													
			- 49.7 - 50.6 many large	49.7	50.6	S								7-9				3-5	489	49.7	50.6	0.9	.055				1.28					
			irregular clots & vns qtz w scattered																													
			clots & narrow vnlts cpy qtz																													
			~15% of section	50.6	53.6	W								Tr				3-5	490	50.6	53.6	3.0	.012				.19					
			- 54.9 - 55.5 1.15 cm qtz	53.6	54.9	W								Tr				2-3	491	53.6	54.9	1.3	.009				.06					
			vein & many large angular clots	54.9	55.5									4-5				5	492	54.9	55.5	0.6	.010				1.34					
			qtz qtz ~ 40% cpy in qtz	55.5	58.5													1-2	493	55.5	58.5	3.0	.002				.0492					
			- no magnetite assoc. w	58.5	61.5													1-2	494	58.5	61.5	3.0	.006				.1221					
			above mineralized interval	61.5	64.5													1	495	61.5	64.5	3.0	.003				.0591					
				64.5	67.5													1	496	64.5	67.5	3.0	.003				.0628					
			- 71.3 - 72.2 core heavily	67.5	70.5													1	497	67.5	70.5	3.0	.004				.0656					
			broken most @ 10° to C.A.	70.5	73.5													1-2	498	70.5	73.5	3.0	.011				.0869					
			weak chlor shears along breaks	73.5	76.5													1	499	73.5	76.5	3.0	.004				.096					
				76.5	79.5													1	500	76.5	79.5	3.0	.004				.0846					

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 4 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			81.0 - 90.3 Fracture zone	79.5	81.0																								
			Core mdtly - hvly broken	81.0	84.0										1-2	15501	79.5	81.0	1.5	.007				.1262					100
			most @ 10° & 35 - 50° to C.A.	84.0	87.0	W									1	502	81.0	84.0	3.0	.004				.1012					100
			not apparently sheared; some	87.0	90.0										1	503	84.0	87.0	3.0	.006				.0864					100
			minor sections brecciated w	90.0	93.0										1	504	87.0	90.0	3.0	.006				.0504					100
			3mm - 3cm angular frags	93.0	94.5										1-2	505	90.0	93.0	3.0	.002				.0565					
			in a gry calcite matrix												1	506	93.0	94.5	1.5	.002				.0434					
			breccia frags not altered																										
			94.5 - 97.6 Shear Zone	94.5	97.5																								
			core badly broken; mdtly -	97.5	100.5										<1	507	94.5	97.5	3.0	.004				.0685					100
			strongly chlrzd w chloritic	100.5	101.5										3-4	508	97.5	100.5	3.0	.006				.1061					100
			shears @ 20-25° to C.A. Some												5	509	100.5	101.5	1.0	.006				.1157					
			late 3cm - 30cm white,																										
			late, barren, gry-calcite																										
			veins @ 60° to C.A. Core																										
			fract not sheared to 99.4 m																										
			@ 101.5 core abruptly	101.5	104.5	S																							
			becomes mdtly-hvly fractured	104.5	107.5	S									3-5	510	101.5	104.5	3.0	.008				.0903					100
			Some sections bleached to												~5	511	104.5	107.5	3.0	.005				.0763					
			lt khaki green some dk green																										
			Core very hard w much																										
			aphanitic Kspar which is																										
			probably 1°; some short 30-																										
			50 cm sections wkly brecciated																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 5 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	Mineralization % Cp	Mineralization % Ga	Mineralization % Sp	Mineralization % Gr	Mineralization % Py	Assay Data Sample No.	Assay Data From	Assay Data To	Assay Data Int	Assay Data Au opt	Assay Data Ag opt	Assay Data Au check	Assay Data Ag check	Assay Data Cu %	Assay Data Pb %	Assay Data Zn %	Core Data RQD %	Core Data Run	Core Data Recovery %
			many sections 0.5-1.5m	107.5	110.5	M									3-4	5512	107.5	110.5	3.0	.006				.0521					100
			only wkly altered. Sharp	110.5	113.5	W									3-4	513	110.5	113.5	3.0	.003				.0119					
			upper boundary @ 30° to C.A.	113.5	116.5	W									2-3	514	113.5	116.5	3.0	.003				.2334					
			no apparent change in rk	116.5	117.7						1-2				2-3	515	116.5	117.7	1.2	.023				.24					100
			type. Alteration controlled																										
			by fract density which																										
			may be controlled by																										
			grain size w finer grained																										
			rocks more heavily fractured																										
			-116.1-116.25, white barren																										
			qtz-calcite vein @ 75° to																										
			C.A.																										
			-silicon decreases down hole																										
			to 115m where it is																										
			weak																										
			-116.5-123.5 many black																										
			veinlets & irregular clots																										
			of hematite in core																										
			-116.5-117.7 -1-2% wispy																										
			cpy assoc. w. fine fracts &																										
			minor qtz. veinlets none noted																										
			above or below																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. S91-392 Page 6 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
118.0	121.4		Fragmental Tuff	117.7	120.7										3-5	15516	117.7	120.7	3.0	.005				.120					100
			med - dk green w	120.7	123.7										5-7	15517	120.7	123.7	3.0	.005				.120					
			dk green - black, aphanitic																										
			2mm - 1cm, angular - sub																										
			rounded fragments in a																										
			v - fgr to aphanitic matrix																										
			<sharp upper contact @ 25° to																										
			C.A sharp lower contact @																										
			55° to C.A.; variable fine																										
			diss py variable black lenses																										
			clots & veinlets to 10% locally																										
121.4	125.1		Trachy Andesite	123.7	126.7										1-2	5181	123.7	126.7	3.0	.002				.05					
			- f gr - med gr equigranular																										
			dk green, mass mafic vole																										
			w ~ 40% white Kspar, 20%																										
			plag & 40% mafic minerals,																										
			variable fine diss py, upper																										
			section w. Hem units & clots																										
125.1	128.0		Trachytic Tuff																										
			- v. f gr - aphanitic med																										
			green almost cherty tuff																										
			w Kspar determined by stain																										
			many qtz filled hair fine																										
			tension fracts																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 7 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
128.0	146.3		Trachy Andesite	126.7	129.7										1-2	15519	126.7	129.7	3.0	.003				.06					100
			as above; no hematite	129.7	132.7										2-3	520	129.7	132.7	2.0	.003				.06					
			broken upper contact, some	132.7	135.7										3-5	521	132.7	135.7	2.0	.006				.13					
			short sections wkly porphyritic	135.7	138.7										2-3	522	135.7	138.7	3.0	.004				.08					
			w 1-2mm hbld or plag phenos in	138.7	141.7										2-3	523	138.7	141.7	3.0	.003				.07					
			andesitic grd mass, textures	141.7	144.7										2-3	524	141.7	144.7	3.0	.010				.14					
			very on f gr intrusive for	144.7	147.7										2-3	525	144.7	147.7	3.0	.001				.14					100
			short 1-2m lengths																										
146.3	159.8		Trachytic Tuff	147.7	150.7										3-5	526	147.7	150.7	3.0	.006				.11					
			-f-med gr equigranular	150.7	153.7										2-3	527	150.7	153.7	3.0	.005				.06					
			med green mixture mafics	153.7	156.7										5	528	153.7	156.7	3.0	.004				.07					
			white Kspar & plag lighter	156.7	159.7										5-6	529	156.7	159.7	3.0	.006				.07					100
			green more sucrosic than																										
			andesite; broken upper																										
			contact; variable finely																										
			disspy																										
			Sharp laminated contact																										
			@ 149.5 @ 35° to C.A.																										
159.8	162.2		F.gr Trachytic Tuff	159.7	162.7										5-7	530	159.7	162.7	3.0	.005				.08					
			med green v.f.gr-aphanitic																										
			wkly-mdrly fracd w white																										
			grz fract filling indistinct																										
			upper contact lower contact																										
			gradational grain size change																										
			over 1m @ 162.2m																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 8 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	Mineralization % Cp	Mineralization % Ga	Mineralization % Sp	Mineralization % Gr	Mineralization % py	Assay Data Sample No.	Assay Data From	Assay Data To	Assay Data Int	Assay Data Au opt	Assay Data Ag opt	Assay Data Au check	Assay Data Ag check	Assay Data Cu %	Assay Data Pb %	Assay Data Zn %	Core Data RQD %	Core Data Run	Core Data Recovery %
162.2	167.8		Trachy Andesite	162.7	165.5			w			Tr				1-2	5531	162.7	165.5	2.8	.010				.15					100
			fgr equigranular mixe																										
			mafics, Kspar + plag as																										
			above w short interbedded																										
			f.gr - aphanitic tuff as																										
			above. Much of core																										
			wkly foliated @ 40° to C.A.																										
			- Cpy mineralization begins	165.5				w			2-3				7-8	532	165.5	167.8	2.3	.028				.86					100
			abruptly @ 165.5m most																										
			as wispy veinlets + blebs																										
			closely assoc. w. hairlike																										
			gash fracts @ all angles to CA																										
			Core is not slsfd or more																										
			heavily chlrzd than above																										
			no apparent control on cpy.																										
167.8	182.9		Fine Grained Trachytic Tuff								<1				3-5	533	167.8	170.8	3.0	.026				.69					100
			med - lt green aphanitic to																										
			cherty, very hard intermediate																										
			to felsic tuff? mixture of																										
			white Kspar + qtz, variable																										
			finely diss py. most mdtly																										
			- hvly fractured w many fine																										
			qtz - calcite veins @ all angles																										
			wispy, fine cpy along some fracts.																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 9 of 10

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			Sharp upper contact between	170.8	173.8	W								<1				<1	5534	170.8	173.8	3.0	.019 .017				.38 .36					100
			Tuff & andesite @ 70° to C.A.	173.8	176.8	W								<1				<1	535	173.8	176.8	3.0	.027 .028				.24					
				176.8	178.0	W								Tr				3-5	536	176.8	178.0	1.2	.016 .015				.18 .17					
			-@ 178.0 immediate	178.0	181.0	I								<1				1-2	537	178.0	181.0	3.0	.036				.46					
			change to grey, aphanitic,	181.0	182.9	M								<1				2-3	538	181.0	182.9	1.9	.020 .015				.57 .45					
			intensely sfctd & K feldspathized																													
			rock original textures																													
			completely destroyed. Intense																													
			alteration gradually decreases																													
			downhole below 179.9 w																													
			short sections recognizable w																													
			f-med gr tuffaceous textures																													
182.9	186.2		Qtz-Chlorite Schist											<.5				5-7	539	182.9	184.9	2.0	.017 .016				.38 .36					
			-Strongly foliated dk grey											<.5				3-5	540	184.9	186.2	1.3	.013 .012				.18 .18					100
			green core w alternating 1-5mm																													
			bands 2° qtz (60%) and																													
			chlorite (40%) sharp contact																													
			w sfctd tuff uphole @ 65° to																													
			C.A. Variable py as fine																													
			laminations along fol. @																													
			40-45° to C.A. fol steepens																													
			downhole to 30° to C.A.																													
			near intrusive. <1% cpy																													
			as diss 1-3mm round blebs.																													
			Ductile Shear ?																													

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-392 Page 10 of 10

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
186.2	210.4		Altered Intrusive	186.2	189.2	S								<1				3-5	554	186.2	189.2	3.0	.016 .016				.38 .38					100
			med - dk grey, porphyritic	189.2	192.2	S								<5				5-7	542	189.2	192.2	3.0	.010				.18					
			w 2-4mm rounded, eroded,	192.2	195.2	S								2-3				5-7	543	192.2	195.2	3.0	.016 .018				.38 .73					
			white plag phenos. in a	195.2	198.2	S								1-2				~5	544	195.2	198.2	3.0	.013 .011				.21 .33					
			dirty, f.gr, strongly slcfd	198.2	201.2	S								<1				2-3	545	198.2	201.2	3.0	.011				.77					
			& K feldspathized groundmass.	201.2	204.2	S								<1				1-2	546	201.2	204.2	3.0	.005 .002				.34 .32					
			(K spar determined by stain).	204.2	207.2	S								1-2				5-7	547	204.2	207.2	3.0	.006 .005				.42 .39					
			most of groundmass replaced	207.2	209.2	S								<1				2-3	548	207.2	209.2	2.0	.004 .003				.29 .37					
			by alteration. Minor qtz-cal.	209.2	210.4	S								1				5-7	549	209.2	210.4	1.2	.005				.34					
			filled tension fracs @ all angles																													
			to C.A. Variable diss																													
			py blebs																													
			- Sharp upper contact @ 25° to																													
			C.A.																													
			- Top 1.5m of intrusive wkly																													
			foliated @ 25-35° to C.A.																													
			- traces of v. f gr diss																													
			moly noted in and adjacent																													
			to qtz veins (not qtz-calcite veins!)																													
			210.4 EOH CASING																													
			left in Hole																													

NORTHAIR MINES LTD.

Diamond Drill Hole Record

Project:

DEPTH	BEARING	DIP	SURVEY TYPE
COLLAR	045°	-50°	Compass

PROPERTY: Sulphurets	LENGTH: 30.5m 100'	HOLE NO.: S91-397
CLAIM: TEDRAY 6	CORE SIZE: BW TW	SHEET NO. 1 of 2
LATITUDE: 6263066.615	RECOVERY: ~98%	LOGGED BY: M. Tindall
DEPARTURE: 423125.285	STARTED: Aug 14/91	SAMPLED BY: Adrian
ELEVATION: 1725.676	COMPLETED: Aug 14/91	PURPOSE: Test By zone N. of DDH1

Interval (meters) From	To	Rock Type	Geologic Description	Alteration From	To	SIL.	ILLITE	CHLOR.	CARB.	Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
0	4.6		OVERBURDEN																									
4.6			Volcanic Breccia med - dk grey w sub-rounded 5mm - 4cm polylithic frags. in a f gr, black, mafic rich matrix. lithic frags include coarse gr plag porphyry monzonite, pink Kspar rich syenite & f gr. mafic volcanic rocks in rough order of abundance. most likely a debris flow breccia. - minor diss py & cpy in matrix & narrow fractures many fracts leached & gen. - magnetite finely diss in matrix - core is hard & silicified - minor mal & azurite along fracts.																										

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-391 Page 2 of 2

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			4.6 - 5.4 Zone of	4.6	7.6									<.5				<1	05486	4.6	7.6	3.0	.006		13		.13					85
			weathering core broken -	7.6	10.6									Tr				<1	487	7.6	10.6	3.0	.005		"		.17					95
			badly broken, limonitic &	10.6	13.6									Tr				Tr	488	10.6	13.6	3.0	.007				.19					100
			heavily leached	13.6	16.6									Tr				Tr	489	13.6	16.6	3.0	.005				.23					
				16.6	19.6									Tr				Tr	490	16.6	19.6	3.0	.011				.26					
			26.9 - 29.3 core broken	19.6	22.6									<1				1-2	491	19.6	22.6	3.0	.013				.35					
			heavily leached w mal	22.6	25.6									<1				1-2	492	22.6	25.6	3.0	.008				.28					
			in fracts. @ 5°-10° to C.A.	25.6	28.6									<1				2-3	493	25.6	28.6	3.0	.006				.28					
				28.6	30.5									Tr				1	494	28.6	30.5	1.9	.006				.34					100
			30.5 m EOH																													
			Hole caved, Core barrel																													
			Tube & bit lost down																													
			hole. Hole lost.																													

NORTHAIR MINES LTD.

Diamond Drill Hole Record

Project:

DEPTH	BEARING	DIP	SURVEY TYPE
COLLAR	045	-60	Compass

PROPERTY: Sulphurets	LENGTH: 113.7m	HOLE NO.: 591-398
CLAIM: Tedray 6	CORE SIZE: BW TW	SHEET NO. 1 of 5
LATITUDE: 6263066.316	RECOVERY: 90-95%	LOGGED BY: M. Tindall
DEPARTURE: 423125.154	STARTED: Aug 15/91	SAMPLED BY: Adrian
ELEVATION: 1725.672	COMPLETED: Aug 15 91	PURPOSE: replace hole 591-397 lost in cave

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.			Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
0	6.1		OVERBURDEN																												
6.1			Volcanic Flow Breccia																												
			dk grey w many subangular to subrounded 4mm - 4cm polylithic frags in a black v.f. gr. mafic rich volcanic matrix. Frags in rough order of abundance are plag porph: monz., pink kspar syenite & f. gr mafic volcanic. minor diss cpy & py along fracts. minor malc azurite on fracts. mag. common in matrix of bx.																											
			- 6.1 - 5.6 Zone of weathering core badly broken w. pale yel-brown limonite stain	6.1	9.1	M							Tr				1	05485	6.1	9.1	3.0	.004				.13					100
			10.9 - 22.2 core broken - badly broken strongly limonite on fracts @ 3° & 55° to C.A. Strong leaching of sulphides w.	9.1	12.1	M							Tr				1	496	9.1	12.1		.003				.14					95

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-398 Page 2 of 5

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
			open spaces along fracts	12.1	14.1									Tr				1-2	05497	12.1	14.1	3.0		.005			.25					92
			& narrow qtz units	14.1	17.1									Tr				1	498	14.1	17.1	3.0		.005			.31					98
				17.1	20.1									<.5				1	499	17.1	20.1	3.0		.006			.36					85
			- Below 22.2m leaching	20.1	22.2									~1				3-5	500	20.1	22.2	2.1		.006			.51					100
			of sulphides decreases though																													
			still a problem cpy & py	22.2	25.2									3-5				6-7	0585	22.2	25.2	3.0		.020			1.04					100
			content increases dramatically	25.2	28.2									3-4				6-7	852	25.2	28.2	3.0		.020			1.02					100
				28.2	31.2									2-3				5	853	28.2	31.2	3.0		.014			.61					100
				31.2	34.2									1				1-2	854	31.2	34.2	3.0		.006			.45					100
			32.9-37.2 core broken sulphides	34.2	37.2									<1				1	855	34.2	37.2	3.0		.012			.51					98
			partially leached mal, az &	37.2	40.2									2-3				3-5	856	37.2	40.2	3.0		.006			.57					100
			limonite stain on fracts.	40.2	43.2									<1				3-5	857	40.2	43.2	3.0		.021			.59					100
			open spaces along fracts &	43.2	46.2									<1				5-7	858	43.2	46.2	3.0		.010			.20					95
			minor narrow qtz units	46.2	49.2									<1				7-8	859	46.2	49.2	3.0		.020			.33					93
				49.2	52.2									<1				5-7	860	49.2	52.2	3.0		.006			.24					92
			53.8-54.1 core very broken	52.2	55.2									<1				2-3	861	52.2	55.2	3.0		.008			.29					78
			rubble ground & rounded in	55.2	58.2									<.5				1-2	861	55.2	58.2	3.0		.008			.29					
			tube																													
			57.1-60.6 rubble zone core																	57.1	-60.6											30
			badly broken mostly gravel																													
			much core lost	58.2	60.4									<.5				1-2	862	58.2	60.4	2.2		.008			.29					25
				60.4	61.7									<1				1	863	60.4	61.7	1.3		.002			.32					58

98

.5

NORTHAIR MINES LTD. Project: _____ Drill Hole No. S91-398 Page 3 of 5

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL.	ILLITE	CHLOR.	CARB.				Mineralization % Pyh	% Cp	% Ga	% Sp	% Gr	% py	Assay Data Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	Core Data RQD %	Run	Recovery %
61.7	63.0		Intrusive Breccia	61.7	64.7									<1				1-2	05864	61.7	64.7	3.0	.005				.22					100
			dk grey - salt & pepper.	64.7	67.7									1.5				1	865	64.7	67.7	3.0	.008				.34					100
			w angular 8mm - 3cm	67.7	69.0									1-2				1	866	67.7	69.0	1.3	.012				.52					100
			frags of dk grey v. fgr																													
			mafic tuff, sed rk? in a																													
			matrix of porphyritic monzonite																													
			w subhedral-ahedral pink 1-5mm																													
			Kspar phenos, anhedral-euhedral 1-3mm																													
			white plag phenos & euhedral																													
			wkly chlrzd 1-3mm hbld phenos																													
			in a f-med gr gnd mass of																													
			pink Kspar & hbld. Intrusive																													
			frags common same comp																													
			as matrix.																													
			- variable but generally minor																													
			diss py & cpy																													
			- mdtly magnetic																													
			- upper contact rubble &																													
			unmeasurable																													
69.0	74.4		Mafic Volcanic	69.0	72.0									Tr				5	867	69.0	72.0	3.0	.002				.10					100
			- dk grey almost blk v.	72.0	74.4									Tr				3-5	868	72.0	74.4	2.4	.004				.08					100
			fgr equigranular mass																													
			mafic volc. rk w. many																													
			irregular blotches & veinlets																													
			pink Kspar; nonmagnetic																													

NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-398 Page 4 of 5

Interval (meters) From	To	Rock Type	Geologic Description	From	To	SIL.	ILLITE	CHLOR.	CARB.	% Pyh	% Cp	% Ga	% Sp	% Gr	% Py	Sample No.	From	To	Int	Au opt	Ag opt	Au check	Ag check	Cu %	Pb %	Zn %	RQD %	Run	Recovery %
			- Some short sections	74.4	77.4						Tr				1	05869	74.4	77.4	3.0	.002				.06					83
			br w small angular frags	77.4	80.4						Tr				<1	870	77.4	80.4	3.0	.005				.10					90
			in a pink Kspar matrix	80.4	83.4						Tr				<1	871	80.4	83.4	3.0	.002				.06					95
			Total Kspar in unit ~15%	83.4	86.4						Tr				<1	872	83.4	86.4	3.0	.003				.06					95
				86.4	89.4						<.5				1-2	873	86.4	89.4	3.0	<.001				.23					98
74.4	[illegible]		Monzonite								Tr				1-2	874	89.4	91.3	2.9	.003				.08					100
			med - dk grey porphyritic																										
			w 2-5mm euhedral pink																										
			Kspar phenos & subhedral																										
			2-3mm white, wkly sericitized																										
			plag phenos in a fine-med																										
			gr groundmass of hbld, plag																										
			& Kspar grnd mass much																										
			more mafic than in intrusive																										
			bx																										
			- most wkly - mdtly magnetic																										
			- variable but minor diss py &																										
			cpy																										
			76.5 - 80.1 Core mdtly -																										
			badly broken most fracts @																										
			25-40° to C.A.																										
			- Below 87.8 monzonite																										
			becomes wkly sicfd. magnetite																										
			content increases w sparse units & clots																										

Alteration | Mineralization | Assay Data | Core Data

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NORTHAIR MINES LTD. Project: _____ Drill Hole No. 591-398 Page 5 of 5

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL.	Alteration ILLITE	Alteration CHLOR.	Alteration CARB.	Mineralization % Pyh	Mineralization % Cp	Mineralization % Ga	Mineralization % Sp	Mineralization % Gr	Mineralization % py	Assay Data Sample No.	Assay Data From	Assay Data To	Assay Data Int	Assay Data Au opt	Assay Data Ag opt	Assay Data Au check	Assay Data Ag check	Assay Data Cu %	Assay Data Pb %	Assay Data Zn %	Core Data RQD %	Core Data Run	Core Data Recovery %
			91.3 - 92.3 Kspar flooded	91.3	92.3						1-2				1-2	05875	91.3	92.3	1.0	.006				.32					100
			interval w/ 30% brick																										
			red Kspar alt'n in matrix																										
			diss cpy much greater than																										
			avg. intrusive textures ~																										
			30-50% destroyed.																										
			- silicate decreases downhole	92.3	95.3						Tr				<1	876	92.3	95.3	3.0	.002				.06					100
			below 92.3 to 94.2 where																										
			alt'n is only sericite																										
			replacement of plag phenos.																										
			96.9 - core mod'ly -	95.3	98.3						Tr				<1	877	95.3	98.3	3.0	<.001				.12					82
			very badly broken some	98.3	101.3						Tr				<1	878	98.3	101.3	3.0	.001				.17					79
			sections basically gravel	101.3	104.3						<.5				1	879	101.3	104.3	3.0	.003				.28					89
			fracts @ 5° & 30° to C.A.	104.3	107.3						<.5				1-2	880	104.3	107.3	3.0	.006				.47					96
			minor mal on fracts	107.3	110.3						<.5				1	881	107.3	110.3	3.0	.003				.19					80
				110.3	113.7						<.5				2-3	882	110.3	113.7	3.4	.007				.43					88
			113.7 EOH																										
			Hole abandoned before																										
			Target depth of 180 m																										
			because of squeezing.																										

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

Appendix 2 Assay Results AUGUST 1, 1991

CERTIFICATE OF ASSAY ETK 91-494

RECEIVED
AUG - 9 1991

NEWHAWK GOLDMINES LTD.
860-625 HOWE STREET
VANCOUVER, B.C.
V6C 2T6

SAMPLE IDENTIFICATION: 38 PULP samples received JULY 23, 1991
PROJECT: SULPHSIDE
SHIPMENT NO.: 22

ET#	Description	Au (g/t)	Au (oz/t)
12 -	0 5218	.18	.005
13 -	0 5219	.08	.002
14 -	0 5220	.08	.002
15 -	0 5221	<.03	<.001
16 -	0 5222	.04	.001
17 -	0 5223	.10	.003
18 -	0 5224	<.03	<.001
19 -	0 5225	.10	.003
20 -	0 5226	.06	.002
21 -	0 5227	<.03	<.001
22 -	0 5228	<.03	<.001
23 -	0 5229	.16	.005
24 -	0 5230	.06	.002
25 -	0 5231	<.03	<.001
26 -	0 5232	<.03	<.001
27 -	0 5233	.07	.002
28 -	0 5234	.07	.002
29 -	0 5235	<.03	<.001
30 -	0 5236	<.03	<.001

Frank J. Pezzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. ETK 91-494 AUGUST 1, 1991

ET#	Description	Au (g/t)	Au (oz/t)
31 -	0 5237	2.51	.073
32 -	0 5238	.39	.011
33 -	0 5239	.29	.008
34 -	0 5240	.32	.009
35 -	0 5241	.65	.019
36 -	0 5242	.71	.021
37 -	0 5243	.21	.006
38 -	0 5244	.32	.009

NOTE: < = LESS THAN

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B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 2, 1991

CERTIFICATE OF ASSAY ETK 91-528A

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 55 ROCK PULP SAMPLES RECEIVED JULY 26, 1991
SHIPMENT NO: 24

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1 -	0 5245	.35	.010	.71
2 -	0 5246	.24	.007	.86
3 -	0 5247	.17	.005	.55
4 -	0 5248	.21	.006	.49
5 -	0 5249	.32	.009	.73
6 -	0 5250	.29	.008	.52
7 -	0 5251	.36	.010	.85
8 -	0 5252	.23	.007	.83
9 -	0 5253	1.40	.041	.56
10 -	0 5254	.77	.022	-
11 -	0 5255	.31	.009	-
12 -	0 5256	.33	.010	-
13 -	0 5257	.57	.017	-
14 -	0 5258	.69	.020	-
15 -	0 5259	.83	.024	-
16 -	0 5260	.53	.015	-
17 -	0 5261	.51	.015	-
18 -	0 5262	.39	.011	-
19 -	0 5263	.98	.029	-
20 -	0 5264	.96	.028	-
21 -	0 5265	.38	.011	-
22 -	0 5266	.31	.009	-
23 -	0 5267	.18	.005	-
24 -	0 5268	.23	.007	-
25 -	0 5269	.14	.004	-
26 -	0 5270	.41	.012	-
27 -	0 5271	.14	.004	-
28 -	0 5272	.17	.005	-
29 -	0 5273	.36	.010	-
30 -	0 5274	.84	.024	-

FRANK J. PEZZOTTI, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. ETK 91-528 AUGUST 2, 1991

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
31 -	0 5275	.92	.027	-
32 -	0 5276	.33	.010	-
33 -	0 5277	.19	.006	-
34 -	0 5278	.25	.007	-
35 -	0 5279	.14	.004	-
36 -	0 5280	.51	.015	-
37 -	0 5281	.18	.005	-
38 -	0 5282	.11	.003	-
39 -	0 5283	.21	.006	-
40 -	0 5284	.09	.003	-
41 -	0 5285 A	.03	.001	-
42 -	0 5285 B	.03	.001	-
43 -	0 5286	<.03	<.001	-
44 -	0 5287	.10	.003	-
45 -	0 5288	.16	.005	-
46 -	0 5289	.09	.003	-
47 -	0 5290	.19	.006	-
48 -	0 5291 A	.27	.008	-
49 -	0 5291 B	.25	.007	-
50 -	0 5292	.33	.010	-
51 -	0 5293	1.47	.043	-
52 -	0 5294	.43	.013	-
53 -	0 5295	.42	.012	-
54 -	0 5296	1.53	.045	-
55 -	0 5297	.22	.006	-

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
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B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 2, 1991

CERTIFICATE OF ANALYSIS ETK 91-528

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 55 ROCK PULP SAMPLES RECEIVED JULY 26, 1991
SHIPMENT NO: 24

ET#	Description	CU (ppm)
1 -	0 5245	-
2 -	0 5246	-
3 -	0 5247	-
4 -	0 5248	-
5 -	0 5249	-
6 -	0 5250	-
7 -	0 5251	-
8 -	0 5252	-
9 -	0 5253	-
10 -	0 5254	1840
11 -	0 5255	1730
12 -	0 5256	5080
13 -	0 5257	2700
14 -	0 5258	4190
15 -	0 5259	2190
16 -	0 5260	3410
17 -	0 5261	4830
18 -	0 5262	3750
19 -	0 5263	3220
20 -	0 5264	4810
21 -	0 5265	4120
22 -	0 5266	1960
23 -	0 5267	3020
24 -	0 5268	2940
25 -	0 5269	4040
26 -	0 5270	4240
27 -	0 5271	2880
28 -	0 5272	2560
29 -	0 5273	4830
30 -	0 5274	3620

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. ETK 91-528 AUGUST 2, 1991

ET#	Description	CU (ppm)
31 -	0 5275	5230
32 -	0 5276	1520
33 -	0 5277	896
34 -	0 5278	1040
35 -	0 5279	702
36 -	0 5280	1110
37 -	0 5281	613
38 -	0 5282	619
39 -	0 5283	933
40 -	0 5284	897
41 -	0 5285 A	355
42 -	0 5285 B	344
43 -	0 5286	65
44 -	0 5287	1010
45 -	0 5288	891
46 -	0 5289	757
47 -	0 5290	737
48 -	0 5291 A	1040
49 -	0 5291 B	1010
50 -	0 5292	1480
51 -	0 5293	1600
52 -	0 5294	2270
53 -	0 5295	1370
54 -	0 5296	3340
55 -	0 5297	1120

NOTE: < = less than

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B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

NEWHAWK GOLD MINES LTD. - 91-494

860-625 HOWE STREET
VANCOUVER, BC
V6C 2T6

AUGUST 1, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: SULPHSIDE
38 PULP SAMPLES RECEIVED JULY 23, 1991

PAGE 1

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12 - 0 5218		<.2	2.32	25	6	55	<5	3.68	<1	18	52	493	4.12	.08	10	2.39	1050	9	<.01	11	1360	12	15	<20	167	.09	<10	103	<10	8	51
13 - 0 5219		<.2	2.78	20	8	50	<5	2.91	<1	19	39	195	5.28	.06	<10	2.84	1221	2	<.01	2	1870	14	15	<20	266	.11	<10	120	<10	3	69
14 - 0 5220		<.2	2.34	25	6	40	<5	2.83	<1	22	26	220	5.87	.11	<10	2.36	1506	2	<.01	3	1680	18	15	<20	91	.10	<10	115	<10	2	95
15 - 0 5221		<.2	1.63	<5	6	60	<5	4.78	<1	17	45	208	3.27	.16	<10	1.45	1647	4	<.01	12	1220	18	10	<20	53	.14	<10	56	<10	12	122
16 - 0 5222		.4	2.38	40	6	30	<5	3.33	8	24	36	343	6.25	.24	10	2.53	1918	3	<.01	17	1320	392	20	<20	41	.12	<10	59	40	8	1669
17 - 0 5223		.2	2.92	25	8	40	<5	4.14	1	23	54	954	5.27	.13	10	3.75	1540	17	<.01	17	1010	62	10	<20	69	.18	<10	105	<10	14	156
18 - 0 5224		.6	2.80	15	4	25	<5	4.95	<1	24	35	1542	5.78	.03	10	4.00	1289	7	<.01	17	890	26	10	<20	54	.10	10	103	<10	5	84
19 - 0 5225		.2	1.78	20	4	20	<5	5.92	<1	19	34	695	4.81	.05	<10	2.41	1258	5	<.01	11	610	16	5	<20	55	.06	<10	74	<10	2	58
20 - 0 5226		<.2	1.14	10	6	20	<5	3.95	<1	15	49	478	2.49	.10	<10	1.28	831	21	<.01	13	1070	14	10	<20	31	.10	<10	45	<10	12	45
21 - 0 5227		.4	2.26	25	6	40	<5	6.02	<1	22	36	973	3.98	.16	<10	2.82	1991	5	<.01	17	1010	54	15	<20	49	.11	<10	69	<10	8	145
22 - 0 5228		.2	1.64	35	6	35	<5	3.94	2	18	28	327	4.31	.24	10	1.36	2468	3	<.01	16	1410	136	10	<20	36	.10	<10	35	<10	7	491
23 - 0 5229		2.0	2.19	20	6	30	5	7.06	1	23	25	3993	5.35	.21	10	2.33	2018	3	<.01	18	1160	98	15	<20	53	.10	<10	47	<10	4	276
24 - 0 5230		<.2	1.64	10	4	170	<5	5.27	<1	11	15	928	2.75	.16	<10	2.19	909	3	<.01	2	1050	22	10	<20	168	.09	<10	69	<10	6	53
25 - 0 5231		<.2	1.26	10	6	40	<5	3.44	<1	13	10	569	3.19	.06	<10	1.29	733	<1	<.01	<1	1390	16	10	<20	95	.07	<10	59	<10	3	51
26 - 0 5232		<.2	1.39	10	6	90	<5	4.10	<1	12	34	642	2.58	.18	<10	1.29	1582	2	<.01	9	1160	40	10	<20	71	.11	<10	41	<10	10	119

ECO-TECH LABORATORIES LTD. NEWHAWK GOLD MINES LTD. - 91-494

PAGE 2

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
27	- 0 5233	.4	1.14	15	6	30	<5	4.38	3	16	33	1129	3.58	.18	<10	1.05	1383	12	<.01	17	1450	228	10	<20	43	.11	<10	33	<10	12	573
28	- 0 5234	.2	1.20	10	6	45	5	2.67	<1	14	40	1034	2.66	.14	10	1.33	803	5	<.01	19	1880	40	10	<20	37	.13	<10	42	<10	13	81
29	- 0 5235	<.2	1.49	10	4	45	<5	3.74	<1	16	48	1362	3.13	.05	10	1.95	806	7	<.01	17	1640	20	10	<20	42	.12	10	74	<10	12	49
30	- 0 5236	<.2	1.44	10	6	30	<5	5.11	<1	15	50	680	2.81	.06	<10	1.76	912	8	<.01	19	1380	32	10	<20	72	.14	<10	71	<10	13	70
31	- 0 5237	1.0	2.74	10	8	30	5	6.28	<1	24	21	1758	8.29	.11	10	3.18	1994	40	<.01	11	900	42	15	<20	64	.07	<10	118	10	2	104
32	- 0 5238	15.4	1.20	15	6	10	<5	3.81	4	15	14	613	4.53	.20	<10	.75	3932	13	<.01	5	1430	1154	30	<20	124	.02	<10	30	30	4	729
33	- 0 5239	2.6	1.42	10	6	40	<5	2.08	2	24	26	942	7.38	.29	<10	.74	8633	20	<.01	9	1360	148	5	<20	103	.02	10	30	<10	1	762
34	- 0 5240	2.0	1.92	10	6	30	<5	2.29	1	19	24	1306	6.07	.33	<10	1.27	3983	20	<.01	7	1580	130	10	<20	108	.01	<10	39	<10	4	374
35	- 0 5241	1.4	.79	20	6	30	<5	2.98	1	14	23	3628	2.96	.26	<10	.61	2318	33	<.01	8	1370	162	5	<20	155	<.01	<10	30	<10	5	206
36	- 0 5242	.6	.45	60	6	15	<5	2.34	<1	18	16	3683	3.67	.26	<10	.16	1033	17	<.01	5	2080	24	5	<20	91	<.01	<10	12	10	5	107
37	- 0 5243	.4	.45	220	6	20	<5	1.11	<1	10	28	2344	2.96	.21	<10	.14	463	30	<.01	9	1570	14	15	<20	56	<.01	<10	8	<10	4	54
38	- 0 5244	.4	.39	265	6	20	5	1.24	<1	12	41	2964	3.27	.17	<10	.13	425	33	<.01	11	1550	18	25	<20	52	<.01	<10	9	10	6	41

NOTE: < = LESS THAN
> = GREATER THAN

CC: NEWHAWK GOLD MINES
BOX 949
STEWART, B.C.
V0T 1W0

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI
B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

AUGUST 2, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PAGE 1

NEWHAWK GOLD MINES - ETK 528

860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

PROJECT: NONE GIVEN - SHIPMENT: 24
55 ROCK PULP SAMPLES RECEIVED JULY 26, 1991

ET#	DESCRIPTION	AU(PPB)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 - 0	5245	-	2.2	.18	75	12	30	20	3.13	<1	11	80	6436	1.54	.10	<10	.08	1203	104	<.01	6	650	32	35	<20	131	<.01	<10	5	<10	3	68
2 - 0	5246	-	2.0	.22	30	12	45	30	1.76	<1	14	93	7664	1.55	.14	<10	.11	734	188	<.01	7	420	20	10	<20	82	<.01	<10	7	<10	1	47
3 - 0	5247	-	1.4	.16	20	16	30	15	1.00	<1	7	118	4835	.93	.16	<10	.07	386	217	.08	6	200	12	5	<20	56	<.01	<10	5	<10	<1	39
4 - 0	5248	-	.8	.15	40	14	10	10	1.94	<1	8	72	3683	1.20	.12	<10	.03	739	192	<.01	5	280	26	15	<20	113	<.01	<10	4	<10	4	75
5 - 0	5249	-	.8	.22	45	12	20	20	1.32	<1	15	94	5982	1.65	.17	<10	.04	493	174	<.01	7	610	14	15	<20	76	<.01	<10	8	<10	2	48
6 - 0	5250	-	.6	.19	75	14	20	15	.49	1	14	112	4464	1.26	.13	<10	.03	190	256	<.01	9	510	306	15	<20	32	<.01	<10	5	<10	<1	155
7 - 0	5251	-	1.6	.20	100	16	20	20	.60	<1	19	90	6861	1.71	.13	<10	.04	239	243	<.01	9	310	44	40	<20	51	<.01	<10	2	<10	<1	109
8 - 0	5252	-	1.4	.18	120	18	10	20	.15	<1	24	65	7266	2.10	.11	<10	.05	57	383	<.01	10	350	16	125	<20	22	<.01	<10	2	<10	<1	71
9 - 0	5253	-	1.0	.24	435	12	15	10	.34	<1	19	63	4872	2.54	.03	<10	.05	104	132	<.01	18	680	28	75	<20	28	<.01	<10	4	<10	<1	66
10 - 0	5254	-	.6	.24	255	10	10	<5	.18	<1	22	58	1822	2.50	.10	<10	.05	52	40	<.01	14	550	10	75	<20	21	<.01	<10	4	<10	<1	38
11 - 0	5255	-	.4	.19	90	14	30	5	3.16	<1	15	94	1532	1.09	.14	<10	.09	1052	111	.05	7	530	8	45	<20	77	<.01	<10	2	<10	1	58
12 - 0	5256	-	.6	.16	120	14	15	15	1.41	1	16	67	4972	1.43	.09	<10	.04	473	181	<.01	7	420	22	35	<20	53	<.01	<10	1	<10	<1	79
13 - 0	5257	-	.4	.20	175	14	15	5	.34	<1	10	90	2395	1.03	.11	<10	.08	96	84	.09	7	460	10	40	<20	31	<.01	<10	3	<10	<1	42
14 - 0	5258	-	.6	.18	310	10	10	10	.18	<1	18	67	3774	1.50	.03	<10	.04	61	99	<.01	9	510	6	50	<20	24	<.01	<10	2	<10	<1	35
15 - 0	5259	-	.4	.16	350	8	20	5	.20	<1	8	79	2105	.90	.02	<10	.02	61	70	<.01	6	510	8	15	<20	22	<.01	<10	3	<10	<1	25
16 - 0	5260	-	.6	.16	230	12	35	10	.54	<1	6	84	3277	.91	.05	<10	.02	105	209	<.01	6	1650	20	10	<20	49	<.01	<10	3	<10	2	78
17 - 0	5261	-	.6	.13	175	10	15	15	.19	<1	12	86	4493	1.24	.06	<10	.02	66	133	<.01	7	460	12	5	<20	18	<.01	<10	3	<10	<1	41
18 - 0	5262	-	.6	.19	95	12	20	10	.36	<1	21	150	3686	1.80	.14	<10	.03	159	70	<.01	11	290	14	20	<20	29	<.01	<10	3	<10	<1	36
19 - 0	5263	-	.4	.31	235	8	10	5	.19	<1	16	56	2848	2.25	.17	<10	.06	57	81	<.01	13	490	10	85	<20	23	<.01	<10	5	<10	<1	40
20 - 0	5264	-	.6	.20	290	12	10	15	.40	1	13	59	4402	1.76	.05	<10	.04	103	186	<.01	11	520	26	150	<20	27	<.01	<10	3	<10	<1	119
21 - 0	5265	-	.6	.20	160	14	15	10	.38	1	12	92	3701	1.31	.12	<10	.03	147	242	<.01	8	680	50	40	<20	30	<.01	<10	3	<10	<1	155
22 - 0	5266	-	.6	.16	255	12	10	<5	.51	3	18	64	1723	1.69	.03	<10	.03	159	191	<.01	7	1100	46	25	<20	44	<.01	<10	2	10	1	404
23 - 0	5267	-	.6	.24	110	12	15	5	.47	1	32	81	2559	2.03	.17	<10	.07	116	135	.03	11	1260	28	60	<20	42	<.01	<10	3	<10	<1	181
24 - 0	5268	-	.2	.22	125	14	20	10	.98	1	12	69	2834	1.12	.13	<10	.04	355	259	<.01	6	1480	20	15	<20	68	<.01	<10	6	<10	3	198
25 - 0	5269	-	1.0	.31	200	14	25	15	.47	2	16	92	3976	1.39	.16	<10	.07	148	209	<.01	7	1250	38	305	<20	43	<.01	<10	6	<10	1	142
26 - 0	5270	-	.6	.28	625	12	20	15	.48	<1	25	82	4335	1.78	<.01	<10	.06	124	134	<.01	8	1410	22	95	<20	37	<.01	<10	6	<10	1	88

ECO-TECH LABORATORIES LTD. NEWHAWK GOLD MINES - ETK 528

PAGE 2

ET#	DESCRIPTION	AU(PPB)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
27 - 0	5271	-	.4	.26	85	16	20	10	.46	<1	17	85	2869	1.24	.17	<10	.04	114	269	<.01	7	1410	30	45	<20	33	<.01	<10	4	<10	1	81
28 - 0	5272	-	.6	.23	170	14	20	5	.50	2	16	90	2519	1.28	.12	<10	.05	194	151	<.01	7	740	26	295	<20	49	<.01	<10	3	<10	<1	152
29 - 0	5273	-	1.0	.25	150	14	25	10	.49	<1	15	80	4725	1.76	.15	<10	.05	138	210	<.01	8	1290	26	50	<20	42	<.01	<10	7	<10	1	128
30 - 0	5274	-	1.0	.30	300	10	15	10	.28	1	17	70	3526	2.92	.11	<10	.07	47	95	<.01	4	1130	150	135	<20	32	<.01	<10	6	<10	<1	161
31 - 0	5275	-	.6	.35	295	14	25	15	1.02	2	17	44	4791	2.32	.15	<10	.08	346	182	<.01	4	1410	170	235	<20	71	<.01	<10	9	<10	2	184
32 - 0	5276	-	1.0	1.75	50	10	50	<5	1.02	<1	22	27	1495	5.01	.37	<10	.91	1065	19	.01	5	1700	20	15	<20	64	<.01	<10	57	<10	<1	99
33 - 0	5277	-	1.8	1.90	55	10	40	<5	.95	<1	19	34	704	5.04	.31	<10	.97	1401	14	.04	6	1540	76	15	<20	52	<.01	<10	60	<10	<1	126
34 - 0	5278	-	2.2	2.05	65	10	35	<5	.64	<1	24	31	1008	5.68	.32	<10	1.03	1335	16	<.01	9	1760	38	20	<20	35	<.01	<10	63	<10	<1	144
35 - 0	5279	-	1.6	1.80	60	10	30	<5	.63	<1	23	28	590	5.02	.37	<10	.80	1204	27	<.01	6	1510	40	15	<20	37	.01	<10	50	<10	<1	132
36 - 0	5280	-	4.4	1.91	65	8	35	<5	.91	<1	23	37	999	5.09	.28	<10	1.24	1315	25	<.01	7	1510	118	20	<20	54	<.01	<10	64	<10	<1	113
37 - 0	5281	-	1.4	1.82	195	10	35	<5	1.51	2	20	27	530	5.00	.22	<10	1.03	1824	9	<.01	5	1390	408	15	<20	48	<.01	<10	54	<10	<1	297
38 - 0	5282	-	1.0	1.97	60	8	30	<5	.74	<1	21	24	502	5.10	.26	<10	1.22	1440	10	<.01	4	1470	46	15	<20	35	<.01	<10	61	<10	<1	111
39 - 0	5283	-	.8	2.05	35	8	35	<5	1.29	<1	23	24	792	5.19	.38	<10	1.27	1474	15	<.01	5	1660	46	10	<20	56	<.01	<10	61	<10	<1	82
40 - 0	5284	-	.4	1.93	20	10	45	<5	1.78	<1	22	22	729	4.53	.37	<10	1.18	1259	12	<.01	5	1790	12	10	<20	71	<.01	<10	62	<10	<1	64
41 - 0	5285	-	.2	2.09	35	8	50	<5	2.44	<1	22	37	283	5.05	.39	<10	1.29	1259	8	<.01	3	1500	8	15	<20	92	<.01	<10	77	<10	1	70
42 - 0	5285	-	.2	2.08	35	8	50	<5	2.50	<1	22	38	291	5.09	.37	<10	1.26	1284	8	<.01	3	1550	8	15	<20	93	<.01	<10	77	<10	1	70
43 - 0	5286	<5	<.2	1.84	80	8	40	<5	1.83	<1	33	59	54	5.03	.23	<10	1.17	969	4	<.01	3	1250	8	15	<20	79	<.01	<10	103	<10	7	69
44 - 0	5287	-	1.2	2.32	35	10	50	<5	2.70	<1	23	39	966	5.60	.38	<10	1.53	1536	24	<.01	7	1630	6	20	<20	78	<.01	<10	74	<10	<1	63
45 - 0	5288	-	.4	2.02	20	8	30	<5	2.92	<1	23	35	751	4.92	.42	<10	1.43	1646	21	<.01	6	1610	10	15	<20	105	<.01	<10	67	<10	<1	63
46 - 0	5289	-	.4	1.94	5	10	45	<5	2.26	<1	22	18	654	4.74	.41	<10	1.15	1331	14	<.01	5	1690	4	10	<20	80	<.01	<10	56	<10	<1	64
47 - 0	5290	-	.6	1.97	10	10	35	<5	1.80	<1	25	32	659	5.31	.43	<10	1.15	1380	25	<.01	5	1620	8	10	<20	69	<.01	<10	59	<10	<1	75
48 - 0	5291	-	1.4	1.75	5	8	55	<5	2.62	<1	19	20	937	4.09	.50	<10	.91	1653	17	<.01	4	1650	10	10	<20	103	<.01	<10	43	<10	<1	67
49 - 0	5291	-	1.6	1.78	5	8	60	<5	2.62	<1	19	21	931	4.12	.51	<10	.90	1654	17	<.01	4	1670	10	10	<20	102	<.01	<10	44	<10	<1	68
50 - 0	5292	-	3.2	1.93	5	8	65	<5	2.83	<1	17	18	1393	4.54	.41	<10	1.08	2154	21	<.01	5	1670	16	15	<20	115	<.01	<10	46	<10	<1	87
51 - 0	5293	-	15.8	1.96	285	10	25	<5	6.10	4	16	48	1263	9.57	.06	<10	1.09	9913	169	<.01	4	720	1870	45	<20	148	<.01	10	65	<10	<1	314
52 - 0	5294	-	3.2	1.83	20	10	30	<5	1.93	<1	25	22	2007	5.01	.40	<10	.99	1986	56	<.01	5	1850	74	15	<20	68	<.01	<10	54	<10	<1	97
53 - 0	5295	-	2.6	1.97	65	16	30	<5	1.00	<1	16	25	1225	5.04	.39	<10	1.11	1485	315	<.01	5	1680	56	15	<20	42	<.01	<10	51	<10	<1	101
54 - 0	5296	-	9.0	1.16	240	18	15	<5	1.38	<1	18	24	3496	7.05	.25	<10	.66	1157	253	<.01	5	1470	112	45	<20	44	<.01	<10	28	<10	<1	70
55 - 0	5297	-	1.8	1.87	105	10	25	<5	1.35	<1	25	22	1066	5.94	.43	<10	1.14	1305	23	<.01	6	1800	26	20	<20	50	<.01	<10	56	<10	<1	76

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
CLINTON S. AYERS
LABORATORY MANAGER

SC91/NORTHAIR1

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 8 , 1991

CERTIFICATE OF ANALYSIS ETK 91-575

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 83 CORE PULP SAMPLES RECEIVED AUGUST 2, 1991
----------SHIPMENT NO: 26

ET#	Description	AU (ppb)
1 -	O 52298	290
2 -	O 52299	90
3 -	O 52300	125
4 -	15201	215
5 -	15202	155
6 -	15203	140
7 -	15204	235
8 -	15205	190
9 -	15206	390
10 -	15207	120
11 -	15208	110
12 -	15209	95
13 -	15210	185
14 -	15211	265
15 -	15212	280
16 -	15213	215
17 -	15214	305
18 -	15215	105
19 -	15216	110
20 -	15217	115
21 -	15218	170
22 -	15219	180
23 -	15220	400
33 -	15229	230
34 -	15230	370
35 -	15231	255
36 -	15232	590
37 -	15233	140
38 -	15234 A	365
39 -	15234 B	350

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 9 , 1991

CERTIFICATE OF ANALYSIS ETK 91-575

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 83 CORE PULP SAMPLES RECEIVED AUGUST 2, 1991
----------SHIPMENT NO: 26

ET#	Description	AU (ppb)	CU (ppm)
1 -	O 52298	290	654
2 -	O 52299	90	187
3 -	O 52300	125	235
4 -	15201	215	422
5 -	15202	155	213
6 -	15203	140	116
7 -	15204	235	321
8 -	15205	190	226
9 -	15206	390	479
10 -	15207	120	166
11 -	15208	110	92
12 -	15209	95	85
13 -	15210	185	216
14 -	15211	265	203
15 -	15212	280	311
16 -	15213	215	272
17 -	15214	305	327
18 -	15215	105	265
19 -	15216	110	161
20 -	15217	115	376
21 -	15218	170	322
22 -	15219	180	1110
23 -	15220	400	2570
33 -	15229	230	2490
34 -	15230	370	4040
35 -	15231	255	2250
36 -	15232	590	3980
37 -	15233	140	1450
38 -	15234 A	365	3390
39 -	15234 B	350	3520

ECO-TECH LABORATORIES LTD.
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10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. ETK 91-575 AUGUST 8 , 1991

ET#	Description	AU (ppb)	CU (ppm)
40 -	15235	155	2630
41 -	15236	245	2030
42 -	15237	150	1750
60 -	15255	265	2630
61 -	15256	305	4000
62 -	15257	125	1710
63 -	15258	320	3320
64 -	15259	140	1390
65 -	15260	255	2260
66 -	15261	230	2550
67 -	15262	305	2080
69 -	15264 A	240	876
70 -	15264 B	165	833
71 -	15265	260	2040
72 -	15266	180	1590
73 -	15267	240	792
74 -	15268	120	705
75 -	15269	145	910
76 -	15270	125	733
77 -	15271	165	1030
78 -	15272	585	2210
79 -	15273	320	1370
80 -	15274	145	984
81 -	15275	85	687
82 -	15276	165	1260
83 -	15277	75	751

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 9, 1991

CERTIFICATE OF ASSAY ETK 91-575

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 83 CORE/PULP samples received AUGUST 2, 1991
PROJECT: SULPHSIDE
SHIPMENT NO: 26

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
24	-15221 A	.59	.017	.41
25	-15221 B	.65	.019	.41
26	-15222	.69	.020	.52
27	-15223	.98	.029	1.23
28	-15224	.78	.023	.88
29	-15225	.48	.014	.55
30	-15226	.64	.019	.54
31	-15227	.63	.018	.54
32	-15228	.29	.008	.75
43	-15229	1.20	.035	.74
44	-15230	.97	.028	.63
45	-15231	.81	.026	.33
46	-15232	.40	.012	.43
47	-15233	.82	.024	.77
48	-15234	.56	.016	.49
49	-15235	.51	.015	.45
50	-15236	.46	.013	.47
51	-15237	.90	.024	.79
52	-15238	.60	.017	.63
53	-15239	.94	.027	1.08
54	-15240	.88	.026	.67
55	-15241	.23	.007	.32
56	-15242	.51	.015	.63
57	-15243	.73	.021	.88
58	-15244	.56	.016	.53
59	-15245	.52	.015	.74
68	-15263	1.09	.032	1.62

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

CC: NEWHAWK, STEWART
SC5/NEWHAWK

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 12, 1991

CERTIFICATE OF ASSAY ETK 91-566A

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 82 CORE PULP SAMPLES RECEIVED JULY 31, 1991
SHIPMENT NO: 27

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1-	15278	.05	.001	.01
2-	15279	<.03	<.001	.01
3-	15280	.05	.001	.03
4-	15281	<.03	<.001	.01
5-	15282	<.03	<.001	<.01
6-	15283	.03	.001	<.01
7-	15284	<.03	<.001	.01
8-	15285	<.03	<.001	.01
9-	15286	<.03	<.001	<.01
10-	15287	<.03	<.001	<.01
11-	15288	<.03	<.001	<.01
12-	15289	<.03	<.001	<.01
13-	15290	<.03	<.001	.03
14-	15291	<.03	<.001	.01
15-	15292	<.03	<.001	<.01
16-	15293	<.03	<.001	.01
17-	15294	<.03	<.001	<.01
18-	15295	<.03	<.001	<.01
19-	15296	<.03	<.001	<.01
20-	15297	<.03	<.001	<.01
21-	15298	.03	.001	.01
22-	15299	<.03	<.001	<.01
23-	15300	.63	.018	.03
24-	15301	.06	.002	<.01
25-	15302	.21	.006	.01
26-	15303	.07	.002	.01
27-	15304	.09	.003	.01
28-	15305	.24	.007	.02
29-	15306	.09	.003	<.01
30-	15307	.13	.004	<.01

Frank J. Pezzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD.
ETK 91-566A

AUGUST 12, 1991

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
31-	15308	.47	.014	.01
32-	15309	.79	.023	.02
33-	15310	.43	.013	.02
34-	15311	.48	.014	.02
35-	15312	.17	.005	.01
36-	15313A	.18	.005	<.01
37-	15313B	.04	.001	.01
38-	15314	.11	.003	.01
39-	15315	<.03	<.001	<.01
40-	15316	<.03	<.001	<.01
41-	15317	<.03	<.001	<.01
42-	15318	<.03	<.001	<.01
43-	15319	<.03	<.001	<.01
44-	15320	.12	.003	<.01
45-	15321	<.03	<.001	<.01
46-	15322	.09	.003	<.01
47-	15323	.16	.005	.01
48-	15324	.07	.002	<.01
49-	15325	.03	.001	<.01
50-	15326	<.03	<.001	<.01
51-	15327	<.03	<.001	<.01
52-	15328	<.03	<.001	<.01
53-	15329	.07	.002	.01
54-	15330	<.03	<.001	.01
55-	15331	<.03	<.001	.01
56-	15332	<.03	<.001	<.01
57-	15333	.27	.008	.30
58-	15334	.51	.015	.35
59-	15335	.92	.027	.61
60-	15336	.33	.010	.42
61-	15337	.47	.014	.41
62-	15338	.41	.012	.35
63-	15339	.51	.015	.32
64-	15340	.24	.007	.16
65-	15341	.43	.013	.31
66-	15342	.51	.015	.45
67-	15343	.42	.012	.39
68-	15344	.17	.005	.20
69-	15345	.21	.006	.12
70-	15346A	.29	.008	.17
71-	15346B	.33	.010	.17
72-	15347	3.92	.114	.09
73-	15348	.18	.005	.06
74-	15349	.27	.008	.10
75-	15350	.32	.009	.14

Frank J. Pezzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD.
ETK 91-566A

AUGUST 12, 1991

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
76-	15351	.16	.005	.10
77-	15352	.24	.007	.12
78-	15353	<.03	<.001	.01
79-	15354	.12	.003	<.01
80-	15355	<.03	<.001	<.01
81-	15356	.09	.003	.01
82-	15357	.47	.014	.14

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 13, 1991

CERTIFICATE OF ASSAY ETK 91-585

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGUIE

SAMPLE IDENTIFICATION: 71 CORE/PULP samples received AUGUST 6, 1991
PROJECT: SULPHSIDE
SHIPMENT NO: 29

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1-	15358	.88	.026	.42
2-	15359	.42	.012	.26
3-	15360	.38	.011	.26
4-	15361	.06	.002	.04
5-	15362	1.13	.033	.23
6-	15363	1.62	.047	.17
7-	15364	1.99	.058	.22
8-	15365	.57	.017	.14
9-	15366	.23	.007	.15
10-	15367	.52	.015	.25
11-	15368	.26	.008	.13
12-	15369A	.54	.016	.13
13-	15369B	.45	.013	.13
14-	15370	.23	.007	.04
15-	15371	.39	.011	.13
16-	15372	.13	.004	.16
17-	15373	.35	.010	.06
18-	15374	.26	.008	.01
19-	15375	.18	.005	.03
20-	15376	.10	.003	.04
21-	15377	.10	.003	<.01
22-	15378	.22	.006	.01
23-	15379	.95	.028	.05
24-	15380	.47	.014	.03
25-	15381	.22	.006	<.01
26-	15382	.46	.013	.03
27-	15383	.30	.009	.02
28-	15384	.16	.005	.01

Frank J. Pezzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. AUGUST 13, 1991
ETK 91-585

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
29-	15385	.14	.004	.01
30-	15386	.18	.005	.02
31-	15387	.35	.010	.07
32-	15388	.14	.004	.03
33-	15389	.40	.012	.05
34-	15390	.12	.003	.03
35-	15391	.70	.020	.06
36-	15392	.79	.023	.02
37-	15393	1.71	.050	.24
38-	15394	.91	.027	.19
39-	15395	.34	.010	.11
40-	15396	.28	.008	.07
41-	15397	.35	.010	.01
42-	15398	.29	.008	.01
43-	15399	.71	.021	.06
44-	15400	1.30	.038	.02
45-	15401	.13	.004	.01
46-	15402	.12	.003	.01
47-	15403	.11	.003	<.01
48-	15404	.10	.003	.01
49-	15405	.46	.013	.01
50-	15406	.36	.010	.01
51-	15407	.73	.021	<.01
52-	15408	1.93	.056	<.01
53-	15409	.97	.028	<.01
54-	15410	.31	.009	.10
55-	15411	.24	.007	.03
56-	15412	.42	.012	.01
57-	15413	.84	.024	.02
58-	15414	1.30	.038	<.01
59-	15415	.73	.021	<.01
60-	15416A	.43	.013	<.01
61-	15416B	.37	.011	<.01
62-	15417	.28	.008	.01
63-	15418	.03	.001	<.01
64-	15419	.04	.001	.01

Frank J. Pezzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD.
ETK 91-585

AUGUST 13, 1991

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
65-	15420	.05	.001	.02
66-	15421	.05	.001	.02
67-	15422	.09	.003	.01
68-	15423	.17	.005	.02
69-	15424	<.03	<.001	.02
70-	15425	.06	.002	.03
71-	15426	.25	.007	.03

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 16, 1991

CERTIFICATE OF ASSAY ETK 91-613

RECEIVED AUG 22 1991

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 93 CORE PULPS samples received AUGUST 12, 1991
PROJECT: SULPHSIDE
SHIPMENT NUMBER: 32

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1 -	15427	4.39	.128	-
2 -	15428	.65	.019	-
3 -	15429	.49	.014	-
4 -	15430	.30	.009	-
5 -	15431	.42	.012	-
6 -	15432	.37	.011	-
7 -	15433	.53	.015	-
8 -	15434	.31	.009	-
9 -	15435	.48	.014	-
10 -	15436	.55	.016	-
11 -	15437	.68	.020	-
12 -	15438	.47	.014	-
13 -	15439	.59	.017	-
14 -	15440	.63	.018	-
15 -	15441	.44	.013	-
16 -	15442	.36	.010	-
17 -	15443	.65	.019	-
18 -	15444	.36	.010	-
19 -	15445	.42	.012	-
20 -	15446	.55	.016	-
21 -	15447	.35	.010	-
22 -	15448	.41	.012	-
23 -	15449	.42	.012	-
24 -	15450	.74	.022	-
25 -	15451	.66	.019	-
26 -	15452	.94	.027	-
27 -	15453	.62	.018	-
28 -	15454	.42	.012	-
29 -	15455	.99	.029	-
30 -	15456	1.55	.045	-

Frank J. Perzotti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. AUGUST 16, 1991
ETK 91-613

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
31 -	15457	.97	.028	-
32 -	15458A	.63	.018	-
33 -	15458B	.62	.018	-
34 -	15459	1.41	.041	-
35 -	15460	1.14	.033	-
36 -	15461	1.72	.050	-
37 -	15462	.57	.017	-
38 -	15463	.34	.010	-
39 -	15464	.50	.015	-
40 -	15465	.51	.015	-
41 -	15466	.49	.014	-
42 -	15467	.32	.009	-
43 -	15468	3.62	.106	-
44 -	15469	.44	.013	-
45 -	15470	.34	.010	-
46 -	15471	.54	.016	-
47 -	15472	.60	.017	-
48 -	15473	.39	.011	-
49 -	15474A	.78	.023	-
50 -	15474B	.82	.024	-
51 -	15475	.66	.019	-
52 -	15476	2.95	.086	-
53 -	15477	.23	.007	-
54 -	15478	.14	.004	-
55 -	15479	.22	.006	-
56 -	15480	.06	.002	-
57 -	15481	.11	.003	-
58 -	15482	.25	.007	-
59 -	15483	.41	.012	.14
60 -	15484	.98	.029	.17
61 -	15485	.37	.011	.20
62 -	15486	.95	.028	.27
63 -	15487	.96	.028	.10
64 -	15488	.29	.008	.16
65 -	15489	1.88	.055	1.28
66 -	15490	.42	.012	.19
67 -	15491	.31	.009	.06
68 -	15492	.33	.010	1.34
69 -	15493	.10	.003	-
70 -	15494	.19	.006	-
71 -	15495	.12	.003	-
72 -	15496	.12	.003	-
73 -	15497	.13	.004	-
74 -	15498	.39	.011	-
75 -	15499	.14	.004	-

Frank J. Pezzetti, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. AUGUST 16, 1991
ETK 91-613

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
76 -	15500	.15	.004	-
77 -	15501	.23	.007	-
78 -	15502	.15	.004	-
79 -	15503	.19	.006	-
80 -	15504	.21	.006	-
81 -	15505	.06	.002	-
82 -	15506	.08	.002	-
83 -	15507	.15	.004	-
84 -	15508	.22	.006	-
85 -	15509	.22	.006	-
86 -	15510	.28	.008	-
87 -	15511	.18	.005	-
88 -	15512	.21	.006	-
89 -	15513	.12	.003	-
90 -	15514	.11	.003	-
91 -	15515	.78	.023	.28
92 -	15516	.18	.005	-
93 -	15517	.16	.005	-

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

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ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 23, 1991

CERTIFICATE OF ASSAY ETK 91-612

NEWHAWK GOLDMINES LTD.
860-625 HOWE STREET
VANCOUVER, B.C.
V6C 2T6

COPY

SAMPLE IDENTIFICATION: 42 CORE PULP samples received AUGUST 12, 1991
PROJECT: SULPHSIDE
SHIPMENT NO.: 34

ET#	Description	Au (g/t)	Au (oz/t)	Cu (%)
1 -	15518	.08	.002	.05
2 -	15519	.10	.003	.08
3 -	15520	.11	.003	.06
4 -	15521	.22	.006	.13
5 -	15522	.13	.004	.08
6 -	15523	.12	.003	.07
7 -	15524	.36	.010	.14
8 -	15525	<.03	<.001	.14
9 -	15526	.22	.006	.11
10 -	15527	.17	.005	.06
11 -	15528	.14	.004	.07
12 -	15529	.19	.006	.07
13 -	15530	.17	.005	.08
14 -	15531	.35	.010	.15
15 -	15532	.95	.028	.86
16 -	15533	.89	.026	.69
17 -	15534	.65	.019	.38
18 -	15535	.91	.027	.24
19 -	15536	.54	.016	.18
20 -	15537A	1.24	.036	.46
21 -	15537B	1.26	.037	.47
22 -	15538	.67	.020	.51
23 -	15539	.58	.017	.38
24 -	15540	.43	.013	.18
25 -	15541	.55	.016	.38
26 -	15542	.36	.010	.21
27 -	15543	.54	.016	.77
28 -	15544	.46	.013	.34
29 -	15545	.38	.011	.33
30 -	15546	.16	.005	.34

FRANK J. PEZZOTTI, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

NEWHAWK GOLDMINES LTD. AUGUST 23, 1991

ET#	Description	Au (g/t)	Au (oz/t)	Cu (%)
31 -	15547	.19	.006	.42
32 -	15548	.13	.004	.29
33 -	15549	.18	.005	.34

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 27, 1991

CERTIFICATE OF ASSAY ETK 91-681

NEWHAWK GOLDMINES LTD.
360, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 23 CORE PULP samples received AUGUST 22, 1991

PROJECT: SULPHSIDE
SHIPMENT NUMBER: 41

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1	- 0 5486	.20	.006	.13
2	- 0 5487	.18	.005	.17
3	- 0 5488	.24	.007	.19
4	- 0 5489	.16	.005	.23
5	- 0 5490	.37	.011	.26
	- 0 5491	.46	.013	.35
	- 0 5492	.27	.008	.28
	- 0 5493	.19	.006	.28
9	- 0 5494	.22	.006	.34
10	- 0 5495	.15	.004	.13
11	- 0 5496	.12	.003	.14
12	- 0 5497	.16	.005	.25
13	- 0 5498	.17	.005	.31
14	- 0 5499	.19	.006	.36
15	- 0 5500	.22	.006	.51
16	- 0 5851	.67	.020	1.04
17	- 0 5852	.68	.020	1.02
18	- 0 5853	.49	.014	.61
19	- 0 5854	.21	.006	.45
20	- 0 5855	.41	.012	.51
21	- 0 5856	.19	.006	.57
22	- 0 5857	.72	.021	.59
23	- 0 5858	.36	.010	.20

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 5, 1991

CERTIFICATE OF ASSAY ETK 91-701

NEWHAWK GOLDMINES LTD.
860, 625 HOWE ST.
VANCOUVER, B.C.
V6C 2T6

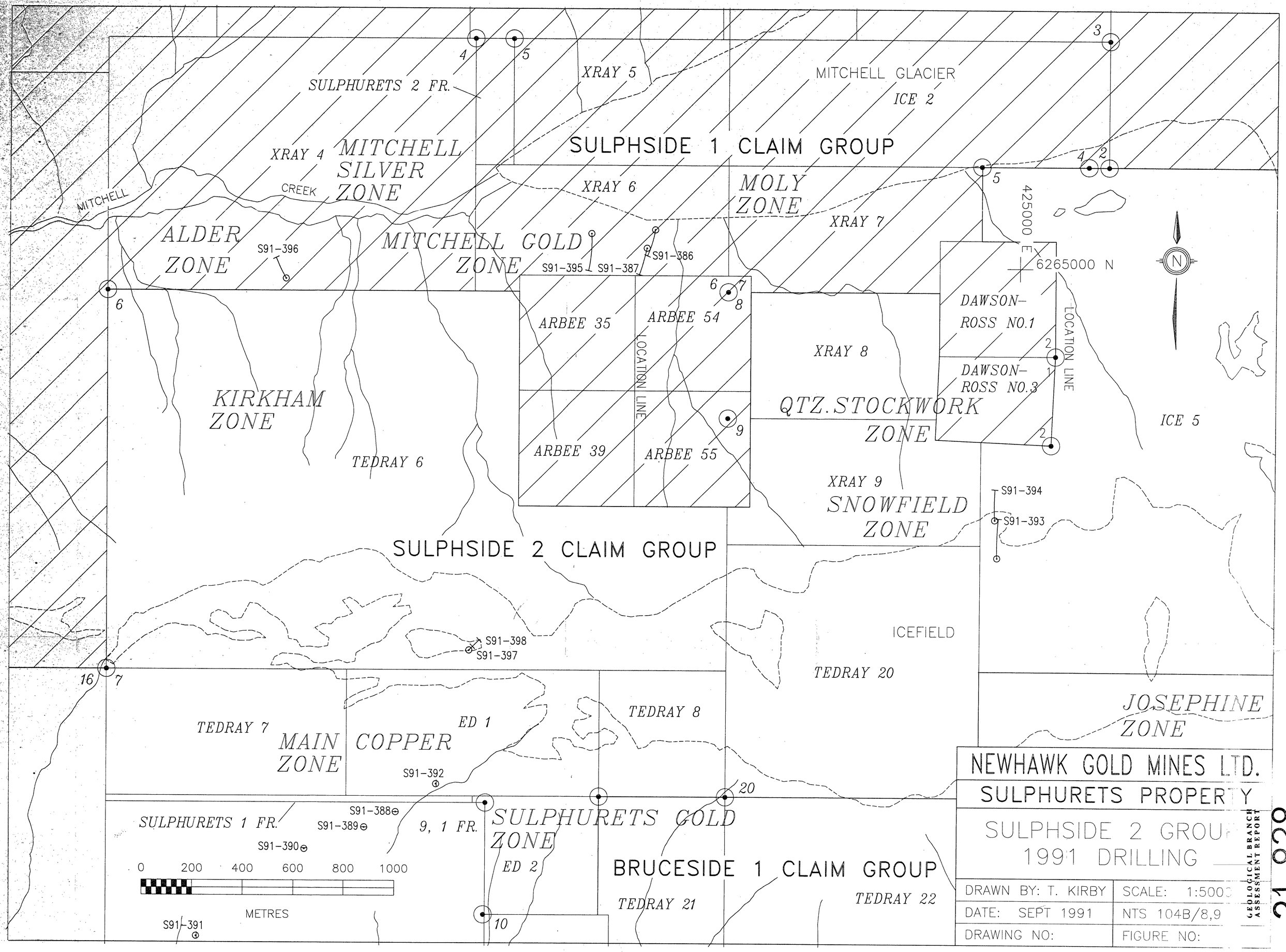
COPY

ATTENTION: DAVID VISAGIE

SAMPLE IDENTIFICATION: 31 ROCK/CORE/PULPS samples received AUGUST 26, 1991

PROJECT: SULPHSIDE
SHIPMENT NUMBER: 43

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
1	- 0 5859	.67	.020	.33
2	- 0 5860	.21	.006	.24
3	- 0 5861	.28	.008	.29
4	- 0 5862	.29	.008	.29
5	- 0 5863	.07	.002	.32
6	- 0 5864	.17	.005	.22
7	- 0 5865	.28	.008	.34
[illegible]	- 0 5866	.40	.012	.52
[illegible]	- 0 5867	.07	.002	.10
10	- 0 5868	.13	.004	.08
11	- 0 5869	.08	.002	.06
12	- 0 5870	.18	.005	.10
13	- 0 5871	.07	.002	.06
14	- 0 5872	.11	.003	.06
15	- 0 5873	<.03	<.001	.23
16	- 0 5874	.09	.003	.08
17	- 0 5875	.22	.006	.32
18	- 0 5876	.07	.002	.08
19	- 0 5877	<.03	<.001	.12
20	- 0 5878	.04	.001	.17
21	- 0 5879	.12	.003	.28
22	- 0 5880	.22	.006	.47
23	- 0 5881	.09	.003	.19
24	- 0 5882	.23	.007	.43


SULPHURETS 2 FR.
XRAY 5
MITCHELL GLACIER
ICE 2
SULPHSIDE 1 CLAIM GROUP
XRAY 4
MITCHELL SILVER ZONE
CREEK
MITCHELL
XRAY 6
MOLY ZONE
XRAY 7
ALDER ZONE
S91-396
MITCHELL GOLD ZONE
S91-395
S91-387
S91-386
425000 E
6265000 N
N
ARBEE 35
ARBEE 54
LOCATION LINE
XRAY 8
DAWSON-ROSS NO.1
DAWSON-ROSS NO.3
LOCATION LINE
KIRKHAM ZONE
QTZ.STOCKWORK ZONE
ICE 5
TEDRAY 6
ARBEE 39
ARBEE 55
XRAY 9
SNOWFIELD ZONE
S91-394
S91-393
SULPHSIDE 2 CLAIM GROUP
ICEFIELD
S91-398
S91-397
TEDRAY 20
TEDRAY 7
MAIN ZONE
COPPER
ED 1
TEDRAY 8
JOSEPHINE ZONE
S91-392
SULPHURETS 1 FR.
S91-388
S91-389
S91-390
9, 1 FR.
SULPHURETS GOLD ZONE
ED 2
BRUCESIDE 1 CLAIM GROUP
TEDRAY 21
TEDRAY 22
S91-391
0 200 400 600 800 1000
METRES
NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY
SULPHSIDE 2 GROUP
1991 DRILLING
DRAWN BY: T. KIRBY
SCALE: 1:5000
DATE: SEPT 1991
NTS 104B/8,9
DRAWING NO:
FIGURE NO:
GEOLOGICAL BRANCH ASSESSMENT REPORT
21,828