Appendix III

Drill Hole Log

Book 3 of 4

CL96-50 to CL96-89

Hole: CL96-50 GEOTECHNICAL DATA Page: 1

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-51

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-51	Date Completed:		Geotech by:
LENGTH: 139.29	Core Diam: BQTK		

Collar Location

Latitude:	1821.58
Departure:	2023.30
Elevation:	1284.80

S U M M A R Y

0.00-0.20	CASING
0.20-9.55	Hornblende Feldspar xtalline
9.55-11.60	Biotite Hbl Fdsp xtalline
11.60-14.90	Hornblende Feldspar xtalline
14.90-16.18	Biotite Hbl Fdsp xtalline
16.18-31.50	Hornblende Feldspar xtalline
31.50-33.25	Broken Core
33.25-34.00	Hornblende Feldspar xtalline
34.00-41.00	Semi-massive hematite *
41.00-50.50	Biotite Hbl Fdsp xtalline *
50.50-58.00	Hornblende Feldspar xtalline
58.00-68.50	volcaniclastics
68.50-92.00	Hornblende Feldspar xtalline
92.00-100.60	Biotite Hbl Fdsp xtalline
100.60-101.50	ANDESITE
101.50-118.00	Hornblende Feldspar xtalline
118.00-139.29	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	90.00	-65.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.20	CASING Casing.										
0.20	9.55	Hornblende Feldspar xtalline	51561	0.20-1.00	0.80	0.005		14.0			118.0	12.0
		Fine grained, grayish-red, mottled, crystalline	51562	1.00-2.00	1.00	0.175		20.0	12.0	10.0	97.0	18.0
		Frs=8/m :Vns =20/m	51563	2.00-3.00	1.00	0.005		8.0	5.0	5.0	96.0	18.0
		Weak SI patches	51564	3.00-4.00	1.00	0.005		10.0	3.0	5.0	99.0	10.0
		Moderate CL pervasive	51565	4.00-5.00	1.00	0.015		12.0	3.0		87.0	14.0
		Weak MS patches	51566	5.00-6.00	1.00	0.740		26.0	5.0	5.0	143.0	14.0
		Strong KS patches	51567	6.00-7.50	1.50	0.090		35.0	12.0		140.0	18.0
		Strong HE pervasive	51568	7.50-9.00	1.50	0.005		5.0		5.0	69.0	10.0
		Moderate QC microveins										
		Dark grayish red, to reddish gray green HFxl/BHFl transition stage? with 20% dark green to light gray to cream, hornblende phenos to 1.5mm., very fine grained to aphanitic matrix. Rare to <1%, copper coloured, euhedral biotite phenos to 3mm. ALTERATION- moderate pervasive dark green chlorite, strong pervasive and disseminated hematite, local weak to moderate patchy silica, local moderate patchy stockwork, strong calcite +/- chlorite +/- quartz stockwork/tension fracture, strong hematite stockwork zone.										
<0.20-1.10>		Semi-massive hematite Moderate SI pervasive Strong CL pervasive Strong HE pervasive										
		Strong pervasive hematite, chlorite, moderate pervasive silica.										
9.55	11.60	Biotite Hbl Fdsp xtalline	51569	9.00-10.50	1.50	0.030		11.0	3.0	5.0	87.0	16.0
		Fine grained, grayish-red, crystalline										
		Frs=6/m :Vns =40/m										
		Weak SI patches										
		Moderate CL pervasive										
		Weak MS patches										
		Strong KS patches										
		Strong HE pervasive										
		Moderate QC stockwork										
		Medium to dark gray red BHFl with 5% copper coloured euhedral biotite phenos to 3mm., 20% light to dark gray to light green translucent within sericite patches, subhedral hornblende phenos to 1.5mm., very fine grained matrix. ALTERATION- moderate pervasive dark green chlorite, strong pervasive hematite, weak patchy silica, strong pervasive and patchy K-spar,										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		likely local moderate patchy light green sericite, moderate irregular quartz/calcite stockwork/tension fractures. Lower contact=graduational, strong hematite stockwork zone.										
11.60	14.90	Hornblende Feldspar xtalline	51570	10.50-12.00	1.50	0.175		41.0	4.0		119.0	12.0
		Fine grained, grayish-red, crystalline, stockwork	51571	12.00-13.50	1.50	0.045		58.0	13.0	10.0	199.0	12.0
		Frs=7/m :Vns =20/m										
		Weak SI patches										
		Moderate CL pervasive										
		Weak MS patches										
		Strong KS patches										
		Strong HE pervasive										
		Medium to dark gray red HFxl, D.A.P.- 0.20 to 9.55m., Lower contact=graduational.										
14.90	16.18	Biotite Hbl Fdsp xtalline	51572	13.50-15.00	1.50	0.005		7.0	29.0		102.0	16.0
		Medium to dark gray red BHFl, D.A.P.- 9.55 to 11.60m., Lower contact=graduational.										
16.18	31.50	Hornblende Feldspar xtalline	51573	15.00-16.50	1.50	0.020		7.0	1.0		108.0	14.0
		Fine grained, grayish-red, crystalline, stockwork	51574	16.50-18.00	1.50	0.005		6.0	33.0	5.0	54.0	10.0
		Frs=5/m :Vns =25/m	51575	18.00-19.50	1.50	0.010		7.0			67.0	22.0
		Weak SI patches	51576	19.50-21.00	1.50	0.020		10.0			107.0	14.0
		Intense CL pervasive	51577	21.00-22.50	1.50	0.070		11.0	6.0		127.0	16.0
		Weak MS patches	51578	22.50-24.00	1.50	0.005		9.0	60.0	5.0	88.0	10.0
		Strong KS pervasive	51579	24.00-25.50	1.50	0.005		9.0	143.0	5.0	87.0	12.0
		Strong HE pervasive	51581	25.50-27.00	1.50	0.005		6.0	6.0	10.0	45.0	18.0
		Moderate QC stockwork	51582	27.00-28.50	1.50	0.130		6.0	6.0		62.0	14.0
		Strong hematite stockwork zone, dark gray red to	51583	28.50-30.00	1.50	0.020		11.0	12.0		79.0	22.0
		reddish green, stockwork HFxl with 20% light to dark	51584	30.00-31.50	1.50	0.005		9.0	4.0	15.0	111.0	14.0
		gray, subhedral, commonly cryptic, hornblende phenos to 1.5mm., rare to generally absent euhedral, copper coloured biotite phenos to 3mm., very fine grained to aphanitic matrix. ALTERATION- strong pervasive hematite with local moderate stockwork and inconsistently controlled patches, moderate to weak pervasive and fracture fill dark green chlorite, local moderate patchy light green sericite, probably strong pervasive K-spar, weak to locally moderate patchy silica, moderate to weak irregular calcite +/- quartz stockwork/tension fractures, local intercalibrated BHFl units.										
		<25.00-29.40> Moderate SI patches Moderate CL pervasive Moderate patchy silica, likely with K-spar as psuedo										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		selvages to irregular hematite/chlorite stringers.										
<30.35-30.55>		Biotite Hbl Fdsp xtalline Grayish-red, crystalline BHFl layer? dykes? with no observable contacts with 10% copper coloured, euhedral biotite phenos to 5mm..										
31.50	33.25	Broken Core Bleached, oxidized fracturing 45° Moderate to strong angular to subangular broken core with strong chlorite streaming; fractures pasted with streaming common at 45 degrees, but often irregular, moderate bleaching and moderate limonite fracture fill, this fault is seen in similar locations in halos on same section.	51585	31.50-33.00	1.50	0.005		10.0	10.0		141.0	12.0
33.25	34.00	Hornblende Feldspar xtalline Fine grained, grayish-red, crystalline, stockwork Frs=10/m :Vns =20/m Weak SI patches Moderate CL pervasive Strong KS pervasive Strong HE pervasive Moderate QC microveins Medium to dark gray red HFxl, D.A.P.- 16.18 to 31.50m..	51586	33.00-34.00	1.00	0.050	1.20	15.0	455.0	10.0	112.0	10.0
34.00	41.00	Semi-massive hematite Aphanitic, dark red microveins 25° Frs=6/m :Vns =10/m Weak SI patches Weak CL microveins Moderate KS patches Intense HE pervasive Moderate SE microveins Moderate QC microveins H-3 zone, intense to strong pervasive hematite within HFxl, cross cut by several specularite +/- quartz +/- calcite +/- calcite veins. HFxl with rare light to dark gray, hornblende phenos to 1.5mm., but generally cryptic, rare to 1%, red to copper coloured to grayish, biotite phenos to 3mm.. ALTERATION- intense to strong pervasive hematite, moderate chlorite as pervasive and within quartz/calcite veins, moderate specularite within quartz/calcite/chlorite veins at 20	51587 51588 51589 51590 51591 51592 51593	34.00-35.00 35.00-36.00 36.00-37.00 37.00-38.00 38.00-39.00 39.00-40.00 40.00-41.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.055 0.035 0.010 1.210 0.120 0.060 0.030		11.0 15.0 16.0 14.0 19.0 15.0 15.0	48.0 18.0 28.0 15.0 18.0 32.0 37.0	5.0 10.0 15.0 25.0 25.0 10.0 5.0	82.0 109.0 66.0 39.0 45.0 47.0 73.0	6.0 10.0 12.0 10.0 8.0 6.0 6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		to 30 degrees; average 25 degrees. Lower contact=indistinct, local weak patchy silica.										
		<36.75-39.60>MINERALIZATION- trace calcopyrite within quartz/calcite/chlorite veins. There are likely to be tension fractures.										
		<36.75-39.60> spec/calcite/chlorite vein microveins 25° :Vns =8/m Semi-massive to massive pervasive hematite (not veins) with 8 veins per meter of quartz/calcite/chlorite/ specularite veins to 1cm., from 30 to 25 degrees. MINERALIZATION- trace calcopyrite within quartz/calcite/ chlorite veins. There are likely to be tension fractures.										
		<39.60-41.00> :Vns =4/m Strong pervasive hematite, lesser specularite/chlorite/ quartz/calcite tension fractures, about 4 per meter. No visible sulphides.										
41.00	50.50	Biotite Hbl Fdsp xtalline	51594	41.00-42.00	1.00	0.020		11.0	177.0	10.0	83.0	8.0
		Fine grained, redish-gray, crystalline, stockwork	51595	42.00-43.00	1.00	0.010		10.0	13.0		60.0	10.0
		Frs=10/m :Vns =6/m	51596	43.00-44.00	1.00	0.005		10.0	3.0		94.0	10.0
		Trace SI patches	51597	44.00-45.00	1.00	0.005		8.0	36.0	5.0	75.0	16.0
		Moderate CL pervasive	51598	45.00-46.00	1.00	0.005		7.0	58.0		109.0	16.0
		Weak MS patches	51599	46.00-47.50	1.50	0.140		9.0	51.0	15.0	122.0	12.0
		Trace MT microveins	51600	47.50-49.00	1.50	0.005		6.0	71.0	10.0	67.0	10.0
		Strong KS pervasive	51601	49.00-50.50	1.50	0.005	0.40	8.0	165.0	10.0	66.0	14.0
		Moderate HE pervasive										
		Moderate QC microveins										
		Reddish gray to reddish green gray BHFl/HFxl transition zone, with 1 to 3% copper coloured to light gray, biotite phenos to 4mm., 20% light to dark gray to light to dark green, commonly cryptic, subhedral hornblende phenos to 2mm., very fine grained to aphanitic matrix. ALTERATION- moderate to strong pervasive chlorite, increasing towards lower contact, moderate pervasive stockwork hematite, with one 8cm. massive vein with magnetite, weak light green patchy pervasive sericite, likely strong pervasive K-spar, weak to moderate calcite +/- quartz +/- hematite veins to 1.5cm., 6 per meter, local weak patchy silica. Lower contact=indistinct.										
		<46.65-46.75>MINERALIZATION- 0.3% calcopyrite, possible trace										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		visible gold.										
		<46.65-46.75> hematite vein vein 70° Moderate MT vein Intense HE vein 10cm. massive hematite with much less magnetite vein at 70 degrees. MINERALIZATION- 0.3% calcopyrite, possible trace visible gold.										
50.50	58.00	Hornblende Feldspar xtalline	51602	50.50-52.00	1.50	0.005		8.0	45.0	5.0	92.0	14.0
		Redish-green, stockwork, mottled	51603	52.00-53.50	1.50	0.005		8.0	44.0	20.0	147.0	12.0
		Frs=6/m :Vns =8/m	51604	53.50-55.00	1.50	0.115		12.0	151.0	10.0	279.0	12.0
		Strong CL pervasive	51605	55.00-56.50	1.50	0.060	0.20	34.0	287.0	10.0	144.0	10.0
		Weak MS patches	51606	56.50-58.00	1.50	0.055	0.60	36.0	679.0	5.0	87.0	10.0
		Moderate KS pervasive										
		Strong HE stockwork										
		Weak QC stockwork										
		Hematite stockwork zone within very dark reddish green, locally almost black HFxl with 20%, commonly cyptic, dark greenish to black, subhedral hornblende phenos to 1.5mm., very fine grained to aphanitic matrix. Locally mottled (volcaniclastic: fragments). ALTERATION- strong pyrrhotite, intense pervasive dark green chlorite, moderate to strong stockwork hematite, local weak patchy light green sericite, probably moderate to strong pervasive K-spar, weak calcite +/- quartz stockwork.										
		<53.20-53.70> Broken Core Bleached, oxidized fracturing 15° Weak broken core with moderate limonite fracture fill and weak bleaching, fractures at low angles to core axis, commonly at 15 degrees.										
58.00	68.50	volcaniclastics	51607	58.00-59.50	1.50	0.010	0.40	21.0	504.0	15.0	113.0	10.0
		Medium grained, greenish-black, mottled, Brecciated	51608	59.50-61.00	1.50	0.010		24.0	69.0		106.0	8.0
		Frs=6/m :Vns =20/m	51609	61.00-62.50	1.50	0.005		26.0	363.0	10.0	53.0	8.0
		Intense CL pervasive	51610	62.50-64.00	1.50	0.010		24.0	139.0		48.0	24.0
		Weak MT pervasive	51611	64.00-65.50	1.50	0.005		26.0	16.0		60.0	6.0
		Moderate HE stockwork	51612	65.50-67.00	1.50	0.005		31.0	88.0	5.0	89.0	10.0
		Strong CV patches	51613	67.00-68.50	1.50	0.005		19.0	22.0		143.0	14.0
		Intensely chloritic +/- magnetic (weak) fragmental likely volcaniclastic with likely >20% fragments of intense with varying grain sizes. Indistinct outline of fragments, appears subrounded within dark green										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		chloritic matrix, phenos are generally light to medium gray, anhedral rectangular, very fine-grained chloritic matrix. ALTERATION- intense pervasive chlorite, moderate hematite stockwork, weak patchy pervasive magnetite, moderate irregular patchy calcite generally with hematite and blackish green, commonly at quite low angles to core axis.										
68.50	92.00	Hornblende Feldspar xtalline	51614	68.50-70.00	1.50	0.005		6.0	8.0		112.0	10.0
		Fine grained, grayish-red, stockwork	51615	70.00-71.00	1.00	0.035		7.0	23.0	10.0	71.0	8.0
		qz-carb veining 40°	51616	71.00-72.00	1.00	0.450		14.0	25.0	25.0	131.0	10.0
		Frs=8/m :Vns =20/m	51617	72.00-73.00	1.00	0.200		12.0	16.0	40.0	105.0	18.0
		Weak SI patches	51618	73.00-74.00	1.00	0.020		11.0	13.0	15.0	106.0	8.0
		Moderate CL pervasive	51619	74.00-75.00	1.00	0.005		15.0	56.0	10.0	81.0	8.0
		Weak MS patches	51620	75.00-76.00	1.00	0.005		9.0	5.0		45.0	6.0
		Moderate KS patches	51621	76.00-77.00	1.00	0.005		9.0	1.0	5.0	32.0	8.0
		Strong HE pervasive	51622	77.00-78.00	1.00	0.255		7.0	37.0	15.0	21.0	10.0
		Moderate QC microveins	51623	78.00-79.00	1.00	0.020		6.0	7.0	10.0	18.0	6.0
		Hematite stockwork zone, greenish to grayish red to	51624	79.00-80.00	1.00	0.090		8.0	10.0	5.0	104.0	12.0
		grayish red, fine grained HFx1 with 20%, usually	51625	80.00-81.00	1.00	0.150		13.0	14.0	20.0	191.0	12.0
		cryptic, dark greenish black to light gray to greenish	51626	81.00-82.00	1.00	0.055		7.0			43.0	6.0
		gray, hornblende phenos to 1.5mm., very fine grained	51627	82.00-83.00	1.00	0.005		7.0			51.0	4.0
		to aphanitic matrix, very rare, light gray to copper	51628	83.00-84.00	1.00	0.010		9.0	4.0	5.0	50.0	8.0
		coloured, eu to subhedral, biotite phenos to 3mm..	51629	84.00-85.00	1.00	0.005		11.0	8.0	10.0	71.0	12.0
		ALTERATION- strong pervasive and stockwork hematite,	51630	85.00-86.50	1.50	0.020		10.0	12.0	15.0	160.0	14.0
		moderate pervasive chlorite with quartz and calcite in	51631	86.50-88.00	1.50	0.005		9.0	21.0	5.0	126.0	10.0
		stockwork and irregular patches, microveins often at	51632	88.00-89.50	1.50	0.005	0.20	2.0	42.0	5.0	155.0	64.0
		45 degrees, weak local patchy silica. Lower contact=	51633	89.50-91.00	1.50	0.005		5.0	27.0	15.0	106.0	28.0
		graduational.										
	<72.00-73.00>	Semi-massive hematite										
		Intense HE patches										
		Intense irregular patches red and steel blue gray (non-magnetic) hematite.										
	<76.00-85.10>	Moderate SI patches										
		Moderate MS patches										
		Strong HE pervasive										
		Strong pervasive hematite, moderate patchy silica, sericite, strong hematite stockwork zone.										
	<85.25-85.85>	hematite vein										
		microveins 70°										
		Weak MT microveins										
		Moderate HE microveins										
		Two 1cm. veins at 70 degrees of hematite/magnetite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
92.00	100.60	Biotite Hbl Fdsp xtalline	51634	91.00-92.50	1.50	0.005		5.0	25.0	15.0	62.0	14.0
		Redish-green, crystalline, stockwork	51635	92.50-94.00	1.50	0.005	0.40	9.0	72.0	15.0	95.0	12.0
		Frs=6/m :Vns =15/m	51636	94.00-95.50	1.50	0.005		8.0	52.0	15.0	43.0	12.0
		Strong CL pervasive	51637	95.50-97.00	1.50	0.005		10.0	20.0	10.0	49.0	8.0
		Moderate MS patches	51638	97.00-98.50	1.50	0.005		9.0	16.0	5.0	45.0	12.0
		Strong KS pervasive	51639	98.50-100.00	1.50	0.005		10.0	106.0	10.0	48.0	12.0
		Strong HE stockwork	51640	100.00-100.60	0.60	0.005		11.0	23.0	15.0	51.0	10.0
		Moderate CV patches										
		Hematite stockwork zone (moderate) within BHF1, with 4% dark green to medium gray to copper coloured, euhedral, hexagonal, biotite phenos to 3.5mm., 25% dark green translucent to dark gray, commonly cryptic, subhedral hornblende phenos to 2.5mm., very fine grained to aphanitic matrix. ALTERATION- moderate to strong pervasive dark green chlorite, strong stockwork and pervasive hematite, local moderate patchy light green sericite, likely strong patchy K-spar, weak irregular calcite patches.										
100.60	101.50	ANDESITE										
		Aphanitic, dark violet, mottled, foliated										
		Frs=5/m :Vns =0/m										
		Strong MT pervasive										
		Weak KS disseminated										
		Dark greenish gray in the middle, dark brown on the margins, late andesite dyke at 35 degrees with 3% white, likely K-spar? speckles and strong pervasive magnetism, likely magnetite.										
101.50	118.00	Hornblende Feldspar xtalline	51641	101.50-103.00	1.50	0.005		11.0	20.0	15.0	59.0	8.0
		Fine grained, redish-green, mottled, crystalline	51642	103.00-104.50	1.50	0.110		10.0	49.0	20.0	65.0	20.0
		Frs=8/m :Vns =25/m	51643	104.50-106.00	1.50	0.005		8.0	11.0	5.0	44.0	14.0
		Moderate CL pervasive	51644	106.00-107.50	1.50	0.005		8.0	11.0	10.0	113.0	12.0
		Weak MS patches	51646	107.50-109.00	1.50	0.010		9.0	11.0	10.0	50.0	18.0
		Strong KS pervasive	51647	109.00-110.50	1.50	0.005		9.0	55.0		119.0	12.0
		Trace EP stockwork	51648	110.50-112.00	1.50	0.025	0.40	8.0	55.0	15.0	137.0	38.0
		Moderate HE stockwork	51649	112.00-113.50	1.50	0.005		7.0	29.0	5.0	55.0	16.0
		Moderate CV stockwork	51650	113.50-115.00	1.50	0.005		7.0	5.0	10.0	48.0	24.0
		Hematite stockwork zone within fairly mottled, medium to dark green HFxl, with 30% light to dark green to light gray, subhedral hornblende needles to 1.5mm., rare, light gray, possible biotites, likely augites. Very fine grained to aphanitic matrix. ALTERATION- strong to moderate pervasive chlorite, moderate patchy pervasive light green sericite, likely strong pervasive K-spar, moderate stockwork and microfracture controlled hematite with less pervasive, moderate	51651	115.00-116.50	1.50	0.005		19.0	15.0	10.0	82.0	16.0
			51652	116.50-118.00	1.50	0.005		25.0	33.0	15.0	292.0	24.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		calcite +/- quartz +/- epidote irregular stockwork. Lower contact=indistinct.										
<107.50-111.30>		Weak SI selvages Moderate KS selvages Moderate HE patches Weak patchy silica/K-spar selvages to irregular hematite patches.										
<111.30-118.00>		calcite vein qz-carb veining 70° Moderate EP macroveins Moderate QC macroveins Calcite/quartz/epidote +/- chlorite veins to 10cm., average 3 at 70 degrees, one per meter.										
118.00	139.29	volcaniclastics Heterolithic, Brecciated Strong hematite stockwork zone within heterolithic, brecciated, volcaniclastic, composed of indistinctive, individual intrusive fragments.	51653	118.00-119.50	1.50	0.010		32.0	77.0	15.0	269.0	16.0
			51654	119.50-121.00	1.50	0.015		41.0	56.0	15.0	118.0	12.0
			51655	121.00-122.50	1.50	0.005		43.0	83.0		91.0	14.0
			51656	122.50-124.00	1.50	0.005		54.0	67.0	15.0	108.0	16.0
			51657	124.00-125.00	1.00	0.010	0.40	34.0	233.0	15.0	114.0	22.0
(eoh)			51658	125.00-126.00	1.00	0.005		46.0	30.0		152.0	20.0
			51659	126.00-127.00	1.00	0.005		42.0	74.0	15.0	137.0	18.0
			51660	127.00-128.00	1.00	0.010		44.0	33.0	20.0	285.0	24.0
			51661	128.00-129.00	1.00	0.105		31.0	42.0	25.0	418.0	34.0
			51662	129.00-130.00	1.00	0.015	0.40	32.0	178.0	10.0	118.0	22.0
			51663	130.00-131.50	1.50	0.020	0.60	28.0	240.0	10.0	91.0	24.0
			51664	131.50-133.00	1.50	0.005		24.0	14.0	10.0	219.0	20.0
			51665	133.00-134.50	1.50	0.060		30.0	83.0		208.0	30.0
			51666	134.50-136.00	1.50	0.005		29.0	54.0	10.0	180.0	112.0
			51667	136.00-137.50	1.50	0.010		26.0	35.0		333.0	28.0
			51668	137.50-139.29	1.79	0.005		34.0	6.0	15.0	467.0	38.0

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-52

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-52	*Date Completed:*		*Geotech by:*
LENGTH: 53.34	Core Diam: BQTK		

Collar Location

Latitude:	1857.37
Departure:	2037.65
Elevation:	1303.54

S U M M A R Y

0.00-9.90	Hornblende Feldspar xtalline **
9.90-15.75	Biotite Hbl Fdsp xtalline
15.75-53.34	Hornblende Feldspar xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	90.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	9.90	Hornblende Feldspar xtalline	51669	0.00-1.00	1.00	0.025		14.0	148.0	40.0	34.0	12.0
		Fine grained, redish-green, mottled, stockwork	51670	1.00-2.00	1.00	0.020		8.0	149.0	15.0	31.0	16.0
		stockwork 50°	51671	2.00-3.50	1.50	0.015		9.0	245.0	25.0	25.0	16.0
		Frs=15/m :Vns =95/m	51672	3.50-5.00	1.50	0.040		11.0	137.0	30.0	25.0	18.0
		Weak SI pervasive	51673	5.00-6.50	1.50	0.030		7.0	146.0	25.0	20.0	22.0
		Strong CL pervasive	51674	6.50-8.00	1.50	0.015		14.0	206.0	20.0	26.0	12.0
		Moderate MS patches	51675	8.00-9.50	1.50	0.015		14.0	90.0	15.0	58.0	14.0
		Strong KS pervasive										
		Strong HE stockwork										
		Trace PY disseminated										
		Dark gray to dark red with pink patchy HFxl with 25% light to dark green subhedral hornblende laths and needles to 2.5mm., locally oikiolitic with strong patchy sericite to 4mm., locally cream speckles (hornblendes?), rare cream to dark green biotites, very fine grained to aphanitic matrix. ALTERATION- strong pervasive dark green chlorite, strong locally moderate stockwork with beds pervasive hematite, local strong patchy sericite, local moderate pervasive silica. Stockwork commonly at 50 degrees.										
<2.85-2.95>		Trace malachite fracture fill.										
<2.95-4.60>		stockwork 50°										
		Weak SI stockwork										
		Strong CL selvages										
		Strong HE stockwork										
		Strong hematite/chlorite +/- silica stockwork at 50 degrees.										
<4.60-4.70>		MINERALIZATION- 2% pyrite, trace calcopyrite.										
<4.60-4.70>		VEINED & DISSEMINATED SULPHIDE										
		Weak SI patches										
		Strong MS patches										
		Strong patchy sericite, weak patchy silica; oikiolitic hornblendes. MINERALIZATION- 2% pyrite, trace calcopyrite.										
<6.00-6.40>		Trace MT disseminated										
		MINERALIZATION- 1% disseminated pyrite, trace calcopyrite.										
<6.00-6.40>		VEINED & DISSEMINATED SULPHIDE										
		Moderate SI patches										
		Strong MS patches										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong patchy sericite, moderate patchy silica; oikiolitic hornblendes. MINERALIZATION- 1% disseminated pyrite, trace calcopyrite.										
<7.65-7.99>		Semi-massive hematite Strong SI pervasive Strong HE pervasive Strong to intense pervasive hematite, strong pervasive silica.										
<7.99-9.50>		Broken Core Weak broken core with weak limonite fracture fill.										
9.90	15.75	Biotite Hbl Fdsp xtalline	51676	9.50-11.00	1.50	0.235		9.0	63.0	10.0	49.0	14.0
		Greenish-red, mottled, stockwork	51677	11.00-12.50	1.50	1.600		42.0	77.0	10.0	122.0	16.0
		qz-carb veining 35°	51678	12.50-14.00	1.50	0.255		10.0	29.0	15.0	57.0	18.0
		Frs=7/m :Vns =60/m	51679	14.00-15.50	1.50	0.005		8.0	30.0	10.0	89.0	28.0
		Strong CL pervasive										
		Weak MS patches										
		Strong KS pervasive										
		Strong HE pervasive										
		Moderate QC microveins										
		Strong hematite stockwork zone within BHFl or transition stage BHFl/HFxl. Some slightly mottled *patches possibly indicative of fragmental*, taxitic trace to 4% euhedral cream biotite phenos to 4mm., typical hornblendes and matrix. ALTERATION- strong hematite stockwork and microfracture controlledd with less pervasive, strong pervasive and stockwork chlorite, moderate quartz/calcite stockwork +/- chlorite, weak patchy light green sericite.										
<11.85-11.89>		hematite vein macroveins 75° 1.5cm. hematite vein with steel gray mineralization at 75 degrees. Strong pervasive chlorite in wallrock.										
15.75	53.34	Hornblende Feldspar xtalline	51680	15.50-17.00	1.50	0.005		8.0	27.0	10.0	56.0	18.0
		Fine grained, red, stockwork, crystalline	51681	17.00-18.50	1.50	0.005		8.0	53.0	20.0	147.0	26.0
		Trace SI pervasive	51682	18.50-20.00	1.50	0.040		12.0	15.0	15.0	149.0	14.0
		Moderate CL pervasive	51683	20.00-21.50	1.50	0.150		14.0	25.0	10.0	52.0	2.0
		Moderate MS patches	51684	21.50-23.00	1.50	0.010		12.0	17.0		45.0	
		Strong KS pervasive	51685	23.00-24.50	1.50	0.005		10.0	149.0		32.0	
		Strong HE pervasive	51686	24.50-26.00	1.50	0.005		10.0	18.0		40.0	
		Weak QC stockwork	51687	26.00-27.50	1.50	0.010		11.0	13.0		45.0	
		Marginal phase HFxl/BHFl, or possible intercalated	51688	27.50-29.00	1.50	0.005		9.0	26.0	5.0	31.0	
		units with absent to 1% euhedral cream, light gray or	51689	29.00-30.00	1.00	0.005		12.0	10.0		47.0	4.0

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	copper coloured phenos, speckly euhedral to 1mm. or	51690	30.00-31.00	1.00	0.005		8.0	14.0		56.0	
	subhedral laths and needles to 2.5mm., Hornblende	51691	31.00-32.00	1.00	0.005		9.0	14.0		81.0	2.0
	phenos and very fine grained aphanitic matrix.	51692	32.00-33.00	1.00	0.660	0.20	7.0	18.0	10.0	162.0	
	ALTERATION- strong pervasive and stockwork hematite,	51693	33.00-34.00	1.00	0.155		8.0	14.0	10.0	85.0	4.0
	moderate pervasive and stockwork chlorite, moderate	51694	34.00-35.00	1.00	0.005		7.0	17.0	5.0	40.0	2.0
	pervasive and patchy hematite, local weak pervasive	51695	35.00-36.00	1.00	0.005	0.20	6.0	34.0	10.0	74.0	
	silica, weak irregular calcite +/- quartz +/- chlorite	51696	36.00-37.00	1.00	0.005		10.0	6.0		62.0	
	stockwork, local rare rounded possible fragments, and	51697	37.00-38.00	1.00	0.005		11.0	11.0		44.0	
	rare local granular salt and pepper sections may	51698	38.00-39.00	1.00	0.005		11.0	11.0	10.0	41.0	10.0
	represent fragments.	51699	39.00-40.00	1.00	0.205	0.40	10.0	12.0	15.0	67.0	
<16.80-20.60>	Weak SI patches										
	Intense KS patches										
	Weak patchy silica, strong to intense patchy K-spar										
	likely, based on previous staining.										
<25.00-25.10>	foliated 50°										
	Chlorite/hematite/sericite foliation at 50 degrees.										
<30.05-35.30>	Semi-massive hematite										
	Weak SI patches										
	Strong HE pervasive										
	Strong pervasive hematite, weak patchy silica.										
<31.30-32.00>	Biotite Hbl Fdsp xtalline										
	Dark red, crystalline										
	BHFl dyke? No observed contacts with 8% cream euhedral										
	biotite phenos to 6mm.										
<33.30-34.20>	D.A.P.- 31.3 to 32.0m.										
<39.60-48.70>	Semi-massive hematite	51702	41.50-43.00	1.50	0.005		12.0	14.0	5.0	49.0	
	Weak SI patches	51703	43.00-44.50	1.50	0.005		12.0	14.0	10.0	55.0	
	Strong HE pervasive	51704	44.50-45.50	1.00	0.005		12.0	9.0		50.0	
	Strong pervasive hematite, weak to moderate patchy	51705	45.50-46.50	1.00	0.005		12.0	7.0		49.0	
	silica with less pervasive.	51706	46.50-47.50	1.00	0.090		13.0	10.0	10.0	31.0	
<43.30-43.60>	Biotite Hbl Fdsp xtalline										
	Greenish-red, crystalline										
	Moderate SI patches										
	Moderate MS patches										
	Moderate HE pervasive										
	BHFl with moderate patchy sericite and silica, with										
	10% cream euhedral biotite phenos to 5mm.										
<49.25-50.50>	Chlorite Streaming	51707	47.50-49.00	1.50	0.005		18.0	35.0	10.0	36.0	6.0
	Moderate SI patches	51708	49.00-50.50	1.50	0.005		13.0	50.0	10.0	52.0	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong CL pervasive Weak EP patches Weak HE stockwork Strong pervasive weakly braided dark green chlorite, weak patchy hematite stockwork, moderate patchy silica, trace weak patchy epidote.										
<50.50-53.34>		calcite vein	51709	50.50-52.00	1.50	0.010		23.0	82.0		27.0	
		qz-carb veining 65° :Vns =1/m Weak EP microveins Moderate QC microveins Quartz/calcite +/- chlorite/epidote veins to 1cm. at 65 degrees, 1 per meter.	51710	52.00-53.34	1.34	0.005	0.20	13.0	104.0	5.0	26.0	
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-53

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-53	Date Completed:		Geotech by:
LENGTH: 70.71	Core Diam: BQTK		

Collar Location

Latitude:	1857.24
Departure:	2037.17
Elevation:	1303.38

S U M M A R Y

0.00-0.25	CASING *
0.25-34.00	Hornblende Feldspar xtalline
34.00-39.40	Biotite Hbl Fdsp xtalline
39.40-57.00	Hornblende Feldspar xtalline
57.00-76.50	Hornblende Feldspar xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	90.00	-55.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.25	CASING										
		Casing.										
<0.00-0.00>												
0.25	34.00	Hornblende Feldspar xtalline	51711	0.25-1.00	0.75	0.060		8.0	110.0	45.0	7.0	36.0
		Fine grained, greenish-red, stockwork, mottled	51712	1.00-2.00	1.00	0.050		15.0	260.0	60.0	22.0	8.0
		stockwork 45°	51713	2.00-3.00	1.00	0.045		13.0	105.0	55.0	24.0	4.0
		Frs=9/m :Vns =50/m	51714	3.00-4.00	1.00	0.020		12.0	38.0	90.0	15.0	14.0
		Trace SI pervasive	51715	4.00-5.50	1.50	0.045		21.0	103.0	45.0	31.0	8.0
		Moderate CL pervasive	51716	5.50-7.00	1.50	0.035		14.0	277.0	15.0	32.0	12.0
		Weak MS patches	51717	7.00-8.50	1.50	0.005		17.0	144.0	15.0	38.0	6.0
		Strong KS pervasive	51718	8.50-10.00	1.50	0.035		13.0	86.0	15.0	29.0	4.0
		Weak EP patches	51719	10.00-11.50	1.50	0.010		8.0	117.0	10.0	42.0	2.0
		Strong HE stockwork	51720	11.50-13.00	1.50	0.190		13.0	92.0	10.0	61.0	10.0
		Weak CV stockwork	51721	13.00-14.50	1.50	0.275		11.0	11.0	10.0	98.0	6.0
		Hematite stockwork zone within transition HFx1 and	51722	14.50-16.00	1.50	0.005		9.0	38.0	10.0	33.0	8.0
		BHF1 on intercalated units. Also intercalated with	51723	16.00-17.50	1.50	0.005		10.0	73.0		33.0	4.0
		possible fragmentals, 20% light to dark green locally,	51724	17.50-19.00	1.50	0.105		49.0	26.0	15.0	130.0	14.0
		cream hornblende phenos to 2mm., rare generally absent	51725	19.00-20.50	1.50	0.020		25.0	23.0	15.0	119.0	6.0
		light green platy biotite phenos to 3mm., very fine	51726	20.50-22.00	1.50	0.005		14.0	12.0		80.0	6.0
		grained to aphanitic matrix. ALTERATION- strong	51727	22.00-23.50	1.50	0.005		8.0	31.0		60.0	6.0
		hematite stockwork from 40 to 55 degrees, average 45	51728	23.50-25.00	1.50	0.005		12.0	113.0	10.0	60.0	8.0
		degrees with less pervasive, moderate to weak	51729	25.00-26.50	1.50	0.005		14.0	9.0	5.0	57.0	6.0
		pervasive chlorite, patchy moderate pervasive	51730	26.50-28.00	1.50	0.005		11.0	42.0		38.0	4.0
		sericite, likely strong to intense pervasive K-spar,	51731	28.00-29.50	1.50	0.005		10.0	45.0	5.0	48.0	6.0
		local weak pervasive silica, local weak patchy epidote	51733	29.50-31.00	1.50	0.270		15.0	119.0	25.0	58.0	8.0
		(nothing new), weak irregular calcite +/- quartz	51734	31.00-32.50	1.50	0.220		10.0	100.0	10.0	38.0	4.0
		stockwork. Lower contact=indistinct.	51735	32.50-34.00	1.50	0.005		10.0	28.0	5.0	155.0	
<2.00-3.00>		stockwork 40°										
		Strong SI stockwork										
		Strong HE stockwork										
		Hematite stockwork at 40 degrees with dark green to										
		black chlorite.										
<3.00-6.50>		stockwork 50°										
		Strong SI stockwork										
		Strong HE stockwork										
		Strong hematite stockwork with chlorite at 50 degrees.										
<8.15-10.50>		Semi-massive hematite										
		Moderate SI pervasive										
		Strong HE pervasive										
		Strong pervasive hematite, moderate pervasive silica.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<13.49-13.54>		hematite vein vein 80° Weak MT vein Intense HE vein 2.5cm. massive hematite with weak magnetite vein at 80 degrees.										
<14.15-18.00>		Hornblende feldspar breccia Moderate EP patches Weak to moderate light green epidote altered salt and pepper, possible hornblende pseudos replaced by epidote. Possible fragmental with 1% rounded, fine grained epidote enriched fragments to 3cm.										
<19.85-23.50>		Trace SI pervasive Strong HE pervasive Strong pervasive hematite, weak pervasive silica.										
<24.00-28.50>		Weak SI pervasive Strong HE pervasive Strong pervasive hematite, weak pervasive silica.										
<25.50-26.50>		volcaniclastics contact 70° Strong HE interstitial Hematite matrix breccia? matrix supported HFxl fragments of varying grain size to 2cm., subangular to subrounded. Upper contact=sharp at 70 degrees, lower contact=diffuse. May be alteration fracture.										
<28.50-28.90>		Moderate EP patches Moderate patchy epidote.										
<31.70-32.30>		volcaniclastics Possible fragmental with 2% speckled light to dark green subrounded fragments.										
34.00	39.40	Biotite Hbl Fdsp xtalline Fine grained, greenish-red, stockwork cleavage, foliation 40° Frs=5/m :Vns =25/m Trace SI pervasive Strong CL pervasive Weak MS pervasive Strong KS pervasive Strong HE pervasive Weak CV microveins	51736 51737 51738	34.00-35.50 35.50-37.00 37.00-38.50	1.50 1.50 1.50	0.005 0.045 0.005		10.0 15.0 12.0	29.0 15.0 28.0	 5.0 10.0	77.0 167.0 173.0	4.0 8.0 6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Hematite stockwork zone within BHFl with 5% euhedral biotite phenos to 3mm. Typical hornblendes and matrix. Possible angular fine grained fragments. ALTERATION- strong pervasive hematite, chlorite; trace pervasive silica, weak calcite stockwork at 40 degrees, strong pervasive K-spar, local weak patchy sericite. Lower contact=indistinct/graduational.										
	<37.65-38.50>	volcaniclastics Possible fragmental with 10% subangular fragments to 8cm. appear finer grained. Distinct contacts, likely not alteration fracture.										
39.40	57.00	Hornblende Feldspar xtalline Greenish-red, crystalline, stockwork Frs=8/m :Vns =50/m Weak CL pervasive Moderate MS patches Strong KS pervasive Strong HE pervasive Weak CV patches Typical HFxl/BHFl transition or intercalated units with hematite stockwork. Rare hexagonal euhedral, red gray platy biotite phenos to 3.5mm. Typical hornblendes and microfracture controlled weak moderate pervasive chlorite, moderate patchy sericite, light apple green.	51739	38.50-40.00	1.50	0.005		12.0	12.0	5.0	44.0	
			51740	40.00-41.50	1.50	0.005		7.0	99.0	10.0	25.0	
			51741	41.50-43.00	1.50	0.335		9.0	15.0	10.0	63.0	4.0
			51742	43.00-44.50	1.50	0.005		10.0	65.0	10.0	41.0	6.0
			51743	44.50-46.00	1.50	0.005		11.0	8.0	10.0	38.0	4.0
			51744	46.00-47.50	1.50	0.005		10.0	15.0	5.0	45.0	6.0
			51745	47.50-49.00	1.50	0.005		10.0	16.0	10.0	45.0	14.0
			51746	49.00-50.50	1.50	0.070		13.0	12.0	10.0	60.0	8.0
			51747	50.50-52.00	1.50	0.005		12.0	14.0	10.0	52.0	4.0
			51748	52.00-53.50	1.50	0.005		7.0	18.0	5.0	29.0	4.0
			51749	53.50-55.00	1.50	0.005		11.0	187.0		36.0	4.0
			51750	55.00-56.50	1.50	0.005		7.0	23.0		37.0	4.0
	<43.70-45.30>	Biotite Hbl Fdsp xtalline Red, crystalline Typical BHFl with indistinct contacts, 3% euhedral platy red gray phenos.										
	<46.00-47.90>	Dark red, crystalline Strong HE pervasive Typical BHFl with indistinct contacts? with 4% euhedral platy biotite phenos to 5mm. Strong pervasive hematite.										
	<48.75-53.10>	Semi-massive hematite Weak SI pervasive Strong HE pervasive Strong pervasive hematite, weak pervasive silica. Part of strong hematite stockwork zone.										
57.00	76.50	Hornblende Feldspar xtalline Fine grained, redish-green, stockwork, crystalline	51751	56.50-58.00	1.50	0.005		13.0	15.0	10.0	51.0	4.0
			51752	58.00-59.50	1.50	0.005		9.0	15.0	10.0	32.0	2.0

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	Frs=10/m :Vns =35/m	51753	59.50-61.00	1.50	0.005		17.0	81.0	10.0	30.0	2.0
	Trace SI pervasive	51754	61.00-62.50	1.50	0.005		14.0	90.0		53.0	6.0
	Strong CL pervasive	51755	62.50-64.00	1.50	0.005		13.0	8.0	5.0	110.0	6.0
	Moderate MS patches	51756	64.00-65.50	1.50	0.005		12.0	15.0	5.0	66.0	12.0
	Moderate HE stockwork	51757	65.50-67.00	1.50	0.005		12.0	6.0	5.0	41.0	4.0
	Weak CV stockwork	51758	67.00-68.50	1.50	0.005		9.0	12.0	5.0	54.0	2.0
	Weak QC stockwork	51759	68.50-70.00	1.50	0.010		27.0	8.0		99.0	6.0
	Less intense hematite stockwork zone within HFxl with 25% light to dark green Hornblende phenos to 2.5mm., uncommon local euhedral platy biotite phenos, generally less than 1% very fine grained to aphanitic matrix. ALTERATION- moderate stockwork to strong pervasive hematite, strong to moderate pervasive chlorite, decreasing towards lower contact, trace pervasive silica, moderate to strong patchy light green sericite, weak irregular calcite stockwork. Lower contact=E.O.H.	51760	70.00-70.71	0.71	0.005		48.0	8.0		92.0	6.0
<62.50-62.60>	hematite vein sheeting 4° Irregular mottled hematite sheeting at 40 degrees.										
<65.70-65.83>	Broken Core Moderate angular broken core with trace gouge fracture fill.										
<66.75-67.05>	Moderate broken core with trace limonite and 1% gouge fracture fill. Irregular fracture orientations, likely gougy slips.										
<70.10-70.71>	Semi-massive hematite Weak SI pervasive Strong HE pervasive Strong pervasive hematite, weak pervasive silica.										
<76.16-76.50>	Biotite Hbl Fdsp xtalline Dark red, crystalline contact 75° BHFl with 5% platy light gray euhedral biotite phenos to 5mm. aphanitic matrix.										
(eoh)											

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-54

PROJECT: Clone	Date Commenced: 16/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-54	Date Completed: 16/08/96		Geotech by:
LENGTH: 86.56	Core Diam: BQTK		

Collar Location	
Latitude:	1857.09
Departure:	2036.69
Elevation:	1303.49

S U M M A R Y

0.00-0.09	CASING
0.09-15.00	Hornblende Feldspar xtalline **
15.00-24.00	Biotite Hbl Fdsp xtalline
24.00-32.00	Hornblende Feldspar xtalline
32.00-40.50	Biotite Hbl Fdsp xtalline
40.50-58.16	Hornblende Feldspar xtalline
58.16-62.00	Biotite Hbl Fdsp xtalline
62.00-70.50	Hornblende feldspar breccia
70.50-82.50	Hornblende Feldspar xtalline
82.50-83.10	rubbly fault zone *
83.10-86.56	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	90.00	-65.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.09	CASING Casing.										
0.09	15.00	Hornblende Feldspar xtalline	51761	0.09-1.50	1.41	0.060		16.0	201.0	65.0	22.0	40.0
		Fine grained, greenish-red, stockwork	51762	1.50-3.00	1.50	0.010		35.0	381.0	80.0	34.0	18.0
		cleavage, foliation 30°:stockwork 40°	51763	3.00-4.50	1.50	0.050		20.0	29.0	40.0	10.0	10.0
		Frs=14/m :Vns =80/m	51764	4.50-6.00	1.50	0.030		27.0	22.0	45.0	25.0	6.0
		Trace SI pervasive	51765	6.00-7.50	1.50	0.065		20.0	164.0	20.0	39.0	10.0
		Moderate CL pervasive	51767	7.50-9.00	1.50	0.020		14.0	192.0	10.0	28.0	6.0
		Weak MS patches	51768	9.00-10.50	1.50	0.015		13.0	95.0	10.0	36.0	
		Strong KS pervasive	51769	10.50-12.00	1.50	0.760	0.40	10.0	169.0	10.0	34.0	6.0
		Strong HE stockwork	51770	12.00-13.50	1.50	2.150		16.0	50.0		75.0	10.0
		Trace PY disseminated	51771	13.50-15.00	1.50	1.510	0.40	23.0	65.0	10.0	88.0	12.0
		Weak CV microveins										
		Hematite stockwork zone. HFxl with 25% light to dark										
		green subhedral hornblende needles to 2mm., very fine										
		grained to aphanitic matrix. Rare euhedral light gray										
		platy biotite phenos increasing towards lower contact.										
		ALTERATION- strong hematite stockwork +/- dark green										
		to black gray chlorite, otherwise moderate pervasive,										
		weak local patchy light green sericite, trace local										
		silicified patches, weak calcite stockwork, common at										
		30 degrees. Lower contact= indistinct.										
<0.70-3.40>		Broken Core fracturing 0°										
		Weak angular broken core with trace gouge fracture										
		fill and trace to absent limonite fracture fill.										
		Fractures often at very low angle to core axis.										
<5.25-7.50>		stockwork 40°										
		Strong hematite stockwork from 50 to 35 degrees,										
		average 40 degrees, often with dark chlorite.										
<7.40-7.46>		MINERALIZATION- trace disseminated pyrite.										
<7.40-7.46>		VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- trace disseminated pyrite.										
<7.82-7.90>		MINERALIZATION- trace disseminated pyrite.										
<7.82-7.90>		VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- trace disseminated pyrite.										
<9.92-10.35>		Semi-massive hematite Weak SI pervasive										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong KS pervasive										
		Strong HE pervasive										
		Moderate pervasive silica, strong pervasive hematite, K-spar.										
		<12.25-15.00> hematite vein										
		microveins 65°										
		Moderate SI selvages										
		Moderate CL stringer										
		Moderate KS selvages										
		Moderate HE stringer										
		Irregular chlorite/hematite stringers generally at high angle to core axis, average 65 degrees, often with silica/ K-spar selvages to 2cm. 3 per meter, average 3mm. wide.										
15.00	24.00	Biotite Hbl Fdsp xtalline	51772	15.00-16.50	1.50	0.145		11.0	53.0		56.0	4.0
		Greenish-red, crystalline, mottled	51773	16.50-18.00	1.50	0.005		10.0	14.0		46.0	
		Frs=8/m :Vns =40/m	51774	18.00-19.50	1.50	0.005		10.0	25.0		90.0	
		Trace SI selvages	51775	19.50-21.00	1.50	0.030		19.0	90.0		196.0	2.0
		Moderate CL pervasive	51776	21.00-22.50	1.50	0.005	1.00	17.0	554.0		102.0	4.0
		Weak MS patches	51777	22.50-24.00	1.50	0.005		15.0	122.0		104.0	6.0
		Strong KS pervasive										
		Trace EP disseminated										
		Strong HE pervasive										
		Weak CV stockwork										
		Hematite stockwork zone. Dark green red BHFl with moderate forest green patches with 1 to 5% euhedral moderate red to light gray platy biotite phenos to 3mm., subhedral hornblende needles to 1.5mm., very fine grained to aphanitic matrix. ALTERATION- strong pervasive hematite with less stockwork and microfracture controlled, moderate pervasive chlorite, weak patchy light green sericite, weak local silica, massive hematite/chlorite stringer selvages, local weak patchy disseminated epidote, weak irregular calcite stockwork. Lower contact=indistinct, very rare rounded fine grained granular patches with sharp margins, likely fragments of some kind. Up to 2cm.										
		<18.20-19.05> Weak EP disseminated										
		Weak patchy disseminated epidote causing speckled texture; possibly replacing feldspar phenos to 0.3mm.										
24.00	32.00	Hornblende Feldspar xtalline	51778	24.00-25.50	1.50	0.005		13.0	5.0		93.0	10.0
		Fine grained, greenish-red, crystalline	51779	25.50-27.00	1.50	0.015		8.0	5.0	5.0	55.0	10.0
		Frs=7/m :Vns =40/m	51780	27.00-28.50	1.50	0.005		9.0	8.0		45.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Trace SI pervasive	51781	28.50-30.00	1.50	0.005		14.0	15.0		49.0	8.0
		Moderate CL pervasive	51782	30.00-31.50	1.50	0.005		12.0	24.0		75.0	10.0
		Moderate MS patches										
		Strong KS pervasive										
		Strong HE pervasive										
		Moderate CV patches										
		Moderate QC patches										
		Hematite stockwork zone. Typical HFxl with rare biotite phenos. ALTERATION- strong pervasive with less stockwork hematite, moderate pervasive chlorite, moderate patchy sericite, weak patchy silica, irregular patchy calcite stockwork. Lower contact=indistinct. Rare fine grained rounded fragments <0.2% to 1cm.										
<26.00-26.78>		Semi-massive hematite										
		Weak SI patches										
		Strong HE pervasive										
		Strong pervasive hematite, weak patchy silica.										
<29.10-29.35>		hematite vein										
		Moderate SI selvages										
		Strong CL stringer										
		Strong KS stringer										
		Moderate silica as selvages to irregular dark greenish red chlorite stringers.										
32.00	40.50	Biotite Hbl Fdsp xtalline	51783	31.50-33.00	1.50	0.005		13.0	62.0		58.0	14.0
		Dark red, crystalline, stockwork	51784	33.00-34.50	1.50	0.005		18.0	43.0		58.0	8.0
		qz-carb veining 40°	51785	34.50-36.00	1.50	0.005		17.0	112.0		49.0	4.0
		Frs=8/m :Vns =40/m	51786	36.00-37.50	1.50	0.010		20.0	21.0		52.0	4.0
		Moderate CL pervasive	51787	37.50-39.00	1.50	0.005		15.0	8.0		73.0	
		Weak MS patches	51788	39.00-40.50	1.50	0.005	0.20	1.0	1.0		3.0	
		Strong KS pervasive										
		Weak EP microveins										
		Strong HE pervasive										
		Moderate QC microveins										
		Hematite stockwork zone within typical BHFl with 2% euhedral biotite phenos (reddish gray), and possible cream augite phenos to 3mm. observed within patchy sericite. ALTERATION- strong pervasive hematite, moderate pervasive chlorite, weak patchy sericite, weak to trace patchy silica. Irregular quartz/calcite +/- epidote veins to 3mm., 30 per meter, average 40 degrees. However, often steeper. Lower contact=indistinct.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<33.84-36.40>		QUARTZ-CALCITE VEINS qz-carb veining 40° Moderate EP microveins Moderate QC microveins Qaurtz/calcite +/- epidote veins, irregular average 40 degrees, average 3mm., 30 per meter.										
40.50	58.16	Hornblende Feldspar xtalline Fine grained, red, crystalline, stockwork contact 35° Frs=8/m :Vns =60/m Weak SI pervasive Moderate CL pervasive Trace CB patches Strong KS pervasive Strong HE pervasive Weak QC patches Strong to intense hematite stockwork zone; however does not look like H-zone. Typical HFxl, coarser grained than usual with light gray hornblendes getting yo 3.5mm. ALTERATION- strong pervasive hematite, with much less stockwork and micorfracture controlled, moderate locally strong pervasive chlorite, weak to absent patchy light green sericite, weak patchy pervasive silica, weak to moderate irregular quartz/calcite patches. Lower contact= sharp at 35 degrees.	51789 51790 51791 51792 51793 51794 51795 51796 51797 51798 51799	40.50-42.00 42.00-43.50 43.50-45.00 45.00-46.50 46.50-48.00 48.00-49.50 49.50-51.00 51.00-52.50 52.50-54.00 54.00-55.50 55.50-57.00	1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	0.005 0.020 0.005 0.005 0.005 0.005 0.010 0.355 0.025 0.005 0.010		21.0 17.0 12.0 13.0 12.0 11.0 13.0 12.0 11.0 10.0 10.0	31.0 15.0 16.0 5.0 122.0 10.0 12.0 141.0 10.0 18.0 8.0		104.0 234.0 94.0 96.0 136.0 39.0 31.0 51.0 141.0 46.0 42.0	8.0 6.0 10.0 4.0 4.0 4.0 2.0 2.0 4.0 8.0 4.0
<42.12-42.14>		hematite vein vein 30° Moderate MT vein Intense HE vein 1cm. massive hematite with less magnetite vein at 80 degrees.										
<45.30-46.50>		Strong CL pervasive Strong pervasive dark green to black chlorite.										
<48.00-52.50>		Semi-massive hematite Weak SI pervasive Intense HE pervasive Strong to intense pervasive hematite, weak patchy silica. Intense pervasive hematite stockwork zone, likely not H-3 zone.										
58.16	62.00	Biotite Hbl Fdsp xtalline Redish-green, stockwork, crystalline	51800 51801	57.00-58.50 58.50-60.00	1.50 1.50	0.005 0.005		11.0 11.0	66.0 47.0		69.0 50.0	 4.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Frs=6/m :Vns =45/m	51802	60.00-61.50	1.50	0.010		12.0	2.0		37.0	
		Strong CL pervasive										
		Trace MS patches										
		Strong KS pervasive										
		Moderate HE stockwork										
		Weak CV patches										
		Typical BHFl with 3% light gray to copper coloured platy biotite phenos. ALTERATION- strong black green chlorite, moderate hematite stockwork, highly irregular, weak to absent patchy light green sericite, weak irregular calcite stockwork. Possible weak fragmental appearance. May be alteration, phenomenom. Lower contact=indistinct.										
62.00	70.50	Hornblende feldspar breccia	51803	61.50-63.00	1.50	0.005		12.0	32.0		79.0	
		Fine grained, redish-green, mottled, stockwork	51804	63.00-64.50	1.50	0.010		23.0	149.0		103.0	
		sheeting 45°	51805	64.50-66.00	1.50	0.005		44.0	184.0		86.0	
		Frs=15/m :Vns =70/m	51806	66.00-67.50	1.50	0.005	1.00	43.0	612.0		75.0	
		Moderate SI patches	51807	67.50-69.00	1.50	0.005		41.0	49.0		68.0	
		Strong CL SHEETED	51808	69.00-70.50	1.50	0.005		30.0	71.0		64.0	
		Strong KS patches										
		Strong HE pervasive										
		Weak CV patches										
		Strongly mottled dark greem to grayish probable fragmental. Overprinted pyrite stringers, stockwork zone, so difficult to make out if it's a volcaniclastic. Hazy irregular fragments in crystalline or crystal ash tuff matrix, likely over 60% up to 8cm. Appears to be heterolithic with irregular black spers to 6mm. and altered crystalline units of varying grain sizes. ALTERATION- strong stockwork and pervasive hematite, often with moderate silica, strong to moderate pervasive, locally sheeted chlorite, weak irregular patchy calcite. Lower contact=indistinct.										
		<62.00-64.05> Chlorite Streaming sheeting 45° Strong CL SHEETED										
		Strong chlorite streaming, or bleached chlorite sheeting irregular at 45 degrees.										
		<66.80-70.35> Moderate SI pervasive										
		Moderate pervasive silica, with strong pervasive hematite; fine grained nature sugarcrysts. Volcaniclastic tuff unit.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<68.40-68.85>		Broken Core Bleached fracturing 25° Moderate brecciation with moderate bleaching and trace limonite fracture fill. Strong chlorite coated fractures at 25 degrees.										
70.50	82.50	Hornblende Feldspar xtalline Fine grained, dark red, crystalline, stockwork Frs=12/m :Vns =75/m Weak SI pervasive Strong CL pervasive Trace MS patches Strong KS pervasive Strong HE pervasive Weak CV patches Typical HFxl to BHFl transition zone with rare <1% euhedral biotite phenos within strong hematite stockwork zone. ALTERATION- strong pervasive hematite, strong to moderate pervasive blackish green chlorite, weak pervasive silica, weak patchy calcite. Silicified zones often look like tuffaceous rafts.	51809	70.50-72.00	1.50	0.005	0.20	34.0	108.0		85.0	
			51810	72.00-73.50	1.50	0.005	0.40	22.0	143.0		59.0	
			51811	73.50-75.00	1.50	0.010		33.0	45.0		87.0	
			51812	75.00-76.50	1.50	0.010		43.0	61.0		102.0	6.0
			51813	76.50-78.00	1.50	0.020		32.0	41.0		101.0	4.0
			51814	78.00-79.50	1.50	0.015		24.0	153.0		142.0	4.0
			51815	79.50-81.00	1.50	0.005		29.0	20.0		102.0	
			51816	81.00-82.50	1.50	0.100		25.0	63.0		378.0	16.0
82.50	83.10	rubbly fault zone gouge 50°:stringer 30° Gougy fault splays with up to 2cm. of fine grained to medium grained light gray gouge at 40 degrees within D.A.P.- 70.50 to 82.50m. MINERALIZATION- 3% stringer pyrite, very fine grained with trace very fine grained calcopyrite, stringers appear slightly oblique at 30 degrees. No bleaching or limonite.										
<82.50-83.10>		Moderate MT stringer .2% chalcopyrite - fine grained MINERALIZATION- 3% stringer pyrite, very fine grained with trace very fine grained calcopyrite, stringers appear slightly oblique at 30 degrees. No bleaching or limonite.										
83.10	86.56	volcaniclastics Dark red, mottled, stockwork Frs=4/m :Vns =40/m Strong CL pervasive Trace CB patches Strong KS pervasive Strong HE pervasive Weak CV patches	51817	82.50-84.00	1.50	0.010		29.0	24.0		136.0	6.0
			51818	84.00-85.50	1.50	0.005		26.0	16.0		97.0	
			51819	85.50-86.56	1.06	0.005		22.0	4.0		72.0	

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Dark grayish red HFxl with 1% fine grained patchy tuffaceous fragments to 1cm. and 10% unknown anhedral lathy black fragments? phenos? 25% dark gray hornblende needles to 2.5mm. fine grained to very fine grained matrix. ALTERATION- strong pervasive hematite, strong blackish green pervasive chlorite, hematite and chlorite often foliated parallel to phenos/fragments at 40 degrees. Moderate pervasive K-spar? Lower contact=E.O.H.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-55

PROJECT: Clone	Date Commenced: 16/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-55	Date Completed: 16/08/96		Geotech by:
LENGTH: 116.43	Core Diam: BQTK		

Collar Location

Latitude:	1857.04
Departure:	2036.47
Elevation:	1303.57

S U M M A R Y

0.00-0.39	CASING
0.39-18.80	Hornblende Feldspar xtalline
18.80-33.25	Biotite Hbl Fdsp xtalline
33.25-38.70	rubbly fault zone *
38.70-62.50	Hornblende Feldspar xtalline
62.50-86.07	volcaniclastics *
86.07-88.27	Semi-massive hematite
88.27-108.50	Hornblende Feldspar xtalline
108.50-116.43	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	90.00	-70.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.39	CASING Casing.										
0.39	18.80	Hornblende Feldspar xtalline	51820	0.39-2.00	1.61	0.070	0.40	17.0	339.0	25.0	29.0	90.0
		Fine grained, redish-green, stockwork, crystalline	51821	2.00-3.50	1.50	0.130		22.0	751.0	80.0	27.0	44.0
		foliated 35°	51822	3.50-5.00	1.50	0.055		17.0	322.0	110.0	21.0	20.0
		Frs=7/m :Vns =45/m	51823	5.00-6.50	1.50	0.065		24.0	26.0	50.0	48.0	16.0
		Weak SI patches	51824	6.50-8.00	1.50	0.050		28.0	40.0	30.0	48.0	12.0
		Strong CL pervasive	51826	8.00-9.50	1.50	0.020		23.0	252.0		63.0	4.0
		Weak MS patches	51827	9.50-11.00	1.50	0.005		15.0	66.0		50.0	4.0
		Strong KS pervasive	51828	11.00-12.50	1.50	0.155		12.0	19.0		35.0	10.0
		Strong HE stockwork	51829	12.50-14.00	1.50	0.065		12.0	177.0		36.0	12.0
		Weak QC stockwork	51830	14.00-15.50	1.50	0.060		16.0	31.0		75.0	14.0
		Strong hematite stockwork zone within HFxl with 25%	51831	15.50-17.00	1.50	0.125		24.0	22.0		168.0	24.0
		light to dark green subhedral hornblende needles, very	51832	17.00-18.50	1.50	0.010		13.0	15.0		102.0	4.0
		fine grained to aphanitic matrix. Strong hematite										
		stockwork with less pervasive, strong to moderate dark										
		greenish black chlorite, local moderate patchy silica,										
		weak irregular quartz/calcite stockwork, local										
		moderate light green to apple green pervasive										
		sericite, hematite stockwork +/- chlorite foliation,										
		common at 35 degrees.										
	<2.50-4.30>	stockwork 30°										
		Strong HE stockwork										
		Strong hematite stockwork at 30 degrees.										
	<5.50-6.70>	stockwork 35°										
		Moderate CL stockwork										
		Strong HE stockwork										
		Strong hematite stockwork +/- chlorite at 35 degrees.										
	<6.70-7.25>	Moderate SI patches										
		Strong HE stockwork										
		Moderate patchy silica with strong hematite stockwork.										
	<11.00-12.50>	Strong SI patches										
		Moderate to strong patchy pervasive silica.										
	<14.00-18.35>	hematite vein										
		stringer 45°										
		Moderate SI selvages										
		Moderate CL stringer										
		Weak MT stringer										
		Strong HE stringer										
		Weak hematite +/- chlorite with rare magnetite										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		stringers to 3mm. commonly at 45 degrees, with moderate silica/ K-spar selvages to 3cm. wide.										
18.80	33.25	Biotite Hbl Fdsp xtalline	51833	18.50-20.00	1.50	0.010	0.40	15.0	149.0	5.0	65.0	12.0
		Fine grained, greenish-red, stockwork, crystalline	51834	20.00-21.50	1.50	0.025		16.0	111.0		108.0	6.0
		Frs=10/m :Vns =40/m	51835	21.50-23.00	1.50	4.510	1.60	23.0	63.0	10.0	544.0	12.0
		Trace SI patches	51836	23.00-24.50	1.50	1.160	0.40	40.0	28.0		537.0	16.0
		Strong CL pervasive	51837	24.50-26.00	1.50	0.015		14.0	56.0		119.0	26.0
		Weak MS patches	51838	26.00-27.50	1.50	0.010		21.0	20.0		79.0	14.0
		Strong KS pervasive	51839	27.50-29.00	1.50	0.005		17.0	10.0		70.0	10.0
		Strong HE pervasive	51840	29.00-30.50	1.50	0.005		16.0	19.0		87.0	18.0
		Moderate QC patches	51841	30.50-32.00	1.50	0.005		23.0	24.0	20.0	97.0	14.0
		Hematite stockwork zone within dark blackish green to reddish green to gray red BHFl with 3 to 10% copper coloured euhedral platy biotite phenos, typical hornblendes and matrix. ALTERATION- strong pervasive with less stockwork hematite, strong to moderate pervasive and wispy stockwork chlorite, lcoal weak patchy light green sericite, local weak patchy silica. Increasing bleaching towards fault zone at lower contact. Decreasing biotite phenos towards lower contact.										
<22.75-23.18>		sheeting 20° Strong HE SHEETED Strong sheeted hematite at 20 degrees.										
<25.50-25.68>		Weak SI patches Strong HE pervasive Strong pervasive hematite, moderate patchy silica.										
<29.90-30.15>		Chlorite Streaming sheeting 70° Strong chlorite streaming at 70 degrees.										
<32.20-33.25>		Strong CL SHEETED Trace HE stockwork Strong chlorite streaming at 35 degrees, weak to absent hematite, moderate bleaching increasing towards lower contact.										
33.25	38.70	rubbly fault zone	51842	32.00-33.50	1.50	0.005		18.0	8.0	35.0	132.0	14.0
		Fine grained, pale green, oxidized, bleached	51843	33.50-35.00	1.50	0.005	0.40	16.0	8.0	10.0	89.0	18.0
		Strong CL SHEETED	51844	35.00-36.50	1.50	0.010	0.60	19.0	35.0	20.0	85.0	20.0
		Trace HE pervasive										
		Trace SE fracture fill										
		Moderate to strong rubbly to sub angular broken core										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		within bleached HFxl. Fractures generally at high angle to core axis, possibly a flat fault. Strong chlorite streaming throughout with virtually no hematite, moderate limonite fracture fill and 2% muddy brown gouge, strong calcite leaching.										
		<38.00-38.70> Weak MT stringer MINERALIZATION- 2% fine grained euhedral pyrite as fracture fill and stringers at 20 degrees.										
		<38.00-38.70> VEINED & DISSEMINATED SULPHIDE stringer 20° MINERALIZATION- 2% fine grained euhedral pyrite as fracture fill and stringers at 20 degrees.										
38.70	62.50	Hornblende Feldspar xtalline	51845	36.50-39.00	2.50	0.010	0.20	17.0	12.0	10.0	72.0	10.0
		Fine grained, redish-green, crystalline, stockwork	51846	39.00-40.50	1.50	0.015		14.0	16.0		67.0	12.0
		qz-carb veining 30°	51847	40.50-42.00	1.50	0.445	0.20	21.0	33.0	10.0	169.0	10.0
		Frs=8/m :Vns =45/m	51848	42.00-43.50	1.50	0.075		18.0	68.0		161.0	8.0
		Weak SI patches	51849	43.50-45.00	1.50	0.005		17.0	31.0		106.0	4.0
		Strong CL pervasive	51850	45.00-46.50	1.50	0.005		14.0	6.0		74.0	4.0
		Weak MS patches	51851	46.50-48.00	1.50	0.010		12.0	21.0		69.0	32.0
		Strong KS foliated	51852	48.00-49.50	1.50	0.200	0.20	14.0	13.0		79.0	10.0
		Strong HE pervasive	51853	49.50-51.00	1.50	0.055		15.0	5.0		114.0	4.0
		Moderate QC microveins	51854	51.00-52.50	1.50	0.010		27.0	38.0		138.0	6.0
		Hematite stockwork zone within HFxl/BHFl transition	51855	52.50-54.00	1.50	0.005		18.0	12.0		85.0	10.0
		stage or intercalcted units, dark greenish black	51856	54.00-55.50	1.50	0.005		32.0	21.0		180.0	18.0
		reddish intrusive with absent to 2% cream eu to	51857	55.50-57.00	1.50	0.060		20.0	17.0	60.0	177.0	24.0
		subhedral biotite +/- augite phenos to 4mm., typical	51858	57.00-58.50	1.50	0.005		17.0	5.0		136.0	10.0
		hornblendes and matrix. ALTERATION- strong pervasive	51859	58.50-60.00	1.50	0.035		23.0	15.0		92.0	14.0
		with less stockwork hematite, strong to moderate	51860	60.00-61.50	1.50	0.065		26.0	112.0		106.0	10.0
		pervasive and wispy greensih black chlorite, local										
		weak to moderate patchy silica, local moderate patchy										
		sericite, local quartz/calcite veins to 4cm. at 30										
		degrees, weak irregular calcite +/- quartz stockwork,										
		lower contact=sharp, irregular.										
		<39.50-40.30> Biotite Hbl Fdsp xtalline										
		Fine grained, red, crystalline, bleached										
		5% eu to subhedral cream biotite +/- augite phenos to										
		3mm., moderate patchy sericite, weak bleaching.										
		<41.60-41.70> hematite vein										
		vein 85°										
		Moderate MT vein										
		Intense HE vein										
		2cm. hematite with less magnetite vein at 85 degrees.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<47.80-48.50> QUARTZ-CALCITE VEINS										
		qz-carb veining 30°										
		:Vns =6/m										
		Quartz/calcite/chlorite veins to 4cm. at 30 degrees, 6 per meter.										
		<49.00-50.50> Moderate SI pervasive										
		Strong HE pervasive										
		Moderate pervasive silica, strong pervasive hematite.										
		<51.00-60.30> Strong CL pervasive										
		Moderate HE pervasive										
		Moderate pervasive hematite, strong pervasive chlorite.										
62.50	86.07	volcaniclastics	51861	61.50-63.00	1.50	0.020	1.20	37.0	608.0		76.0	8.0
		Aphanitic, redish-green, contorted, stockwork	51862	63.00-64.50	1.50	0.005		47.0	145.0		135.0	6.0
		Frs=17/m :Vns =80/m	51863	64.50-66.00	1.50	0.005		32.0	164.0		101.0	8.0
		Moderate SI patches	51864	66.00-67.50	1.50	0.010		39.0	33.0		108.0	4.0
		Weak CL patches	51865	67.50-69.00	1.50	0.005		61.0	74.0		96.0	6.0
		Weak MS patches	51866	69.00-70.50	1.50	0.005		40.0	42.0		106.0	10.0
		Moderate KS patches	51867	70.50-72.00	1.50	0.075		45.0	84.0		110.0	6.0
		Strong HE stockwork	51868	72.00-73.50	1.50	0.005		33.0	28.0		93.0	4.0
		Moderate QC patches	51869	73.50-75.00	1.50	0.005		51.0	45.0		270.0	8.0
		Hematite stockwork within highly controlled very fine	51870	75.00-76.50	1.50	0.005	0.60	64.0	190.0		300.0	10.0
		grained to sheety disrupted tuffs within crytalline	51871	76.50-78.00	1.50	0.005		43.0	14.0		416.0	14.0
		ash matrix. Grayish red to medium gray locally bedded,	51872	78.00-79.50	1.50	0.040		49.0	28.0		874.0	20.0
		but too disrupted for relaible orientations.	51873	79.50-81.00	1.50	0.050	0.40	25.0	21.0	35.0	91.0	6.0
		ALTERATION- strong stockwork with less pervasive	51874	81.00-82.50	1.50	0.010	0.40	23.0	27.0	15.0	56.0	6.0
		hematite, local moderate to strong patchy silica,	51875	82.50-84.00	1.50	0.015		18.0	22.0		46.0	4.0
		local moderate pervasive and patchy chlorite,	51876	84.00-85.00	1.00	0.010		29.0	21.0		55.0	6.0
		sericite, likely moderate K-spar, moderate highly	51877	85.00-86.07	1.07	0.020		28.0	11.0	15.0	45.0	6.0
		irregular quartz/calcite patches and stockwork.										
		<70.50-74.50> Broken Core										
		Weak angular broken core and weak limonite fracture fill.										
		<75.30-75.90> stockwork 30°										
		Strong hematite stockwork at 30 degrees.										
		<80.00-83.05> Strong MT stringer										
		MINERALIZATION- 4% irregular euhedral stringer and fracture fill pyrite. Likely related to late brittle evert and shouldn't carry Au.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<80.00-83.05>		VEINED & DISSEMINATED SULPHIDE Trace HE pervasive MINERALIZATION- 4% irregular euhedral stringer and fracture fill pyrite. Likely related to late brittle evert and shouldn't carry Au. ALTERATION- trace pervasive hematite.										
<84.15-86.07>		stringer 45° 4% fine grained to coarse grained subhedral pyrite often with coarse grained calcite crytals, stringers to 3mm., often at 45 degrees. Likely later associated with weak bleaching and generally weak hematite.										
86.07	88.27	Semi-massive hematite Mottled contact 50° Weak SI pervasive Strong CL pervasive Weak MT pervasive Intense HE pervasive H-3 zone? strong to intense pervasive hematite, likely strong pervasive chlorite, weak pervasive magnetite at contact between volcaniclastic and HFxl lithology and intersection unclear, likely volcaniclastic. Lower contact=upper contact=50 degrees.	51878	86.07-87.00	0.93	0.020		27.0	12.0		42.0	6.0
			51879	87.00-88.27	1.27	0.010		19.0	10.0		39.0	4.0
88.27	108.50	Hornblende Feldspar xtalline Fine grained, greenish-red, mottled, stockwork Frs=8/m :Vns =50/m Trace SI patches Moderate CL pervasive Trace MS patches Strong KS pervasive Strong HE pervasive Weak CV stockwork Weak QC stockwork Strong hematite stockwork zone within weakly to moderately mottled granular HFxl with 20% light to dark gray to green gray hornblende phenos to 2.5mm., fine grained to very fine grained matrix. ALTERATION- strong to moderate pervasive and stockwork hematite, strong to moderate pervasive and wispy chlorite, trace to weak patchy silica, probably strong to moderate pervasive K-spar. Lower contact=sharp within broken core. Rare possible tuffaceous fragments. Typical hematite stockwork zone.	51880	88.27-89.00	0.73	0.005		24.0	17.0		64.0	8.0
			51881	89.00-90.00	1.00	0.030	0.60	19.0	27.0	10.0	97.0	4.0
			51882	90.00-91.00	1.00	0.005		21.0	7.0		85.0	4.0
			51883	91.00-92.00	1.00	0.110		32.0	16.0	10.0	229.0	20.0
			51884	92.00-93.50	1.50	0.020	0.40	25.0	78.0		115.0	12.0
			51885	93.50-95.00	1.50	0.005		22.0	17.0		85.0	4.0
			51886	95.00-96.50	1.50	0.050	1.20	18.0	324.0	5.0	80.0	4.0
			51887	96.50-98.00	1.50	0.005		16.0	9.0		79.0	4.0
			51889	98.00-99.50	1.50	0.005		20.0	2.0	10.0	83.0	
			51890	99.50-101.00	1.50	0.035		16.0	6.0		86.0	
			51891	101.00-102.50	1.50	0.045		15.0	6.0		75.0	
			51892	102.50-104.00	1.50	0.450		16.0	14.0	5.0	69.0	
			51893	104.00-105.50	1.50	0.255		14.0	17.0		75.0	
			51894	105.50-107.00	1.50	0.195		13.0	18.0	10.0	131.0	
			51895	107.00-108.50	1.50	0.170		15.0	53.0		204.0	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<88.27-89.43>		VEINED & DISSEMINATED SULPHIDE Broken, bleached gouge 55°:stringer 4% stringer and fracture fill euhedral pyrite, commonly at 55 degrees with ?? weak gougy slips at 55 degrees, trace wispy pervasive hematite, weak bleaching.										
108.50	116.43	volcaniclastics Fine grained, redish-green, contorted, stockwork foliated 40°:qz-carb veining 80° Frs=9/m :Vns =40/m Weak SI patches Strong CL pervasive Moderate KS patches Trace EP macroveins Moderate HE stockwork Moderate CV stockwork Weak QC macroveins Hematite stockwork within heterolithic volcaniclastic possibly cross cut by fine grained HFxl dykes, highly contorted tuffaceous fragments? sbout 25% folaition likely remnant bedding commonly at 40 degrees. ALTERATION- strong pervasive dark green chlorite, moderate hematite stockwork with ess pervasive, local weak to moderate silica, moderate quartz/calcite +/- chlorite +/- epidotestockwork and veins commonly at 80 degrees. Previous staining reveals moderate patchy pervasive K-spar, lesser in tuffaceous units.	51896	108.50-110.00	1.50	0.005	0.40	17.0	96.0	5.0	82.0	2.0
			51897	110.00-111.50	1.50	0.010	0.40	42.0	187.0	5.0	352.0	
			51898	111.50-113.00	1.50	0.005		35.0	101.0		205.0	
			51899	113.00-114.50	1.50	0.005	0.60	39.0	245.0	10.0	251.0	2.0
			51900	114.50-115.50	1.00	0.010		16.0	6.0		77.0	
			51901	115.50-116.43	0.93	0.005		37.0	27.0	10.0	72.0	4.0
<111.50-111.52>		hematite vein vein 65° Intense SI vein Intense HE vein Hematite/quartz vein 2cm. at 65 degrees.										
<113.42-113.46>		QUARTZ-CALCITE VEINS vein 80° Moderate CL pervasive Moderate EP vein Intense QC vein 3.5cm. quartz/calcite/epidote/chlorite vein at 80 degrees.										
<114.11-115.75>		volcaniclastics Weak SI patches Strong HE pervasive										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate patchy pervasive silica, strong pervasive hematite.										
	(eoh)											

12/04/96

Hole: CL96-55 GEOTECHNICAL DATA Page: 1

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-56

PROJECT: Clone	Date Commenced: 18/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-56	Date Completed: 19/08/96		Geotech by:
LENGTH: 179.83	Core Diam: BQTK		

Collar Location

Latitude:	2148.22
Departure:	2049.19
Elevation:	1415.14

S U M M A R Y

0.00-0.13	CASING
0.13-5.50	Debris flow
5.50-6.10	Broken Core
6.10-17.07	
17.07-35.00	Hornblende Feldspar xtalline ***
35.00-37.70	volcaniclastics
37.70-54.00	Semi-massive hematite *
54.00-91.00	Hornblende Feldspar xtalline ***
91.00-99.00	Hornblende Feldspar xtalline **
99.00-112.20	Hornblende Feldspar xtalline *
112.20-121.41	Hornblende Feldspar xtalline *
121.41-122.61	semi-massive sulphides
122.61-133.54	Hornblende Feldspar xtalline ***
133.54-135.94	Biotite Hbl Fdsp xtalline *
135.94-153.50	Hornblende Feldspar xtalline ****
153.50-162.44	rubbly fault zone
162.44-163.50	mudstone
163.50-168.62	tuff
168.62-171.20	mudstone
171.20-179.83	tuff

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-50.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.13	CASING										
		Casing.										
0.13	5.50	Debris flow	51902	0.13-1.50	1.37	0.005	0.20	16.0	50.0	15.0	126.0	20.0
		Fine grained, red, heterolithic, foliated	51903	1.50-2.50	1.00	0.005	2.20	15.0	159.0	10.0	142.0	22.0
		foliated 50°	51904	2.50-4.00	1.50	0.020	0.80	12.0	33.0	25.0	244.0	32.0
		Frs=10/m :Vns =5/m										
		Weak SI patches										
		Moderate CL pervasive										
		Trace EP patches										
		Strong HE SHEETED										
		Trace CV patches										
		Strongly hematized foliated heterolithic brecciated unit, matrix supported, possibly mega brecciated/debris flow, with 40% fragments; 20 % subrounded mottled coarse grained intrusive with 20% abhedral hazy feldspar crystals, 35% HFxl of varying grain size, very fine grained hematitic matrix. 5% tuff. ALTERATION- strong to intense sheeted hematite, moderate to strong pervasive chlorite, weak patchy silica, alteration of selected fragments, local weak to moderate epidote. Foliation common at 50 degrees.										
5.50	6.10	Broken Core	51905	4.00-6.00	2.00	0.020	2.60	10.0	116.0	20.0	211.0	40.0
		Oxidized, bleached										
		fracturing 60°										
		Strong rusty bleached rubbly broken core. Intense limonite fracture fill. Fracures common at 60 degrees.										
6.10	17.07	D.A.P.- 0.13 to 5.50m. Sharp lower contact.	51906	6.00-7.50	1.50	0.035	0.60	20.0	24.0	25.0	262.0	40.0
<12.48-12.58>		QUARTZ-CALCITE VEINS	51907	7.50-9.00	1.50	0.220	1.60	17.0	100.0	20.0	301.0	36.0
		qz-carb veining 70°	51908	9.00-10.50	1.50	0.050	1.40	15.0	63.0	20.0	254.0	30.0
		12cm. quartz/calcite chlorite vein at 70 degrees.	51909	10.50-12.00	1.50	0.035	1.40	18.0	83.0	25.0	250.0	30.0
17.07	35.00	Hornblende Feldspar xtalline	51910	12.00-13.50	1.50	0.055	0.80	15.0	53.0	10.0	184.0	20.0
		Fine grained, redish-green, mottled, stockwork	51911	13.50-15.00	1.50	0.005	1.00	21.0	62.0	10.0	222.0	118.0
		qz-carb veining 40°	51912	15.00-16.50	1.50	0.015	1.00	20.0	88.0	15.0	217.0	30.0
		Frs=12/m :Vns =25/m	51913	16.50-18.00	1.50	0.005		18.0	70.0		65.0	8.0
		Weak SI patches	51914	18.00-19.50	1.50	0.005		19.0	125.0		31.0	
		Strong CL pervasive	51915	19.50-21.00	1.50	0.005		19.0	62.0	5.0	31.0	
		Weak MS patches	51916	21.00-22.50	1.50	0.005		20.0	94.0	5.0	32.0	
		Strong KS pervasive	51917	22.50-24.00	1.50	0.005		21.0	74.0		31.0	
		Weak EP microveins	51918	24.00-25.50	1.50	0.005		20.0	184.0		33.0	
		Moderate HE stockwork	51919	25.50-27.00	1.50	0.005		19.0	73.0		37.0	
		Moderate QC microveins	51920	27.00-28.50	1.50	0.005		18.0	34.0	15.0	36.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		HFxl? HFBx? may be very subtle fragmental with up to	51921	28.50-30.00	1.50	0.005		17.0	28.0	10.0	33.0	2.0
		10% absent pervasive hematite stockwork and	51922	30.00-31.50	1.50	0.005		13.0	101.0	10.0	37.0	
		microfracture controlled 20% commonly cryptic light to	51923	31.50-33.22	1.72	0.005		22.0	37.0	40.0	37.0	8.0
		dark green hornblende phenos to 1.5mm., very fine	51924	33.22-34.00	0.78	0.005	0.20	30.0	45.0	50.0	38.0	12.0
		grained matrix. ALTERATION- moderate to absent	51926	34.00-35.00	1.00	0.005		20.0	147.0	30.0	48.0	6.0
		pervasive and stockwork hematite and microfracture										
		controlled with good solution fronts, weak to moderate										
		patchy and wispy epidote, strong pervasive chlorite,										
		weak to moderate quartz/calcite +/- epidote veins to										
		4cm., local moderate patchy silica.										
	<19.35-25.75>	calcite vein										
		qz-carb veining 40°:qz-carb veining 40°										
		:Vns =4/m										
		Quartz/calcite/epidote veins to 4cm. at 40 and 70										
		degrees, generally, 4 per meter.										
	<27.00-35.00>	No stockwork and pervasive hematite, strong to intense										
		pervasive and wispy chlorite.										
	<31.90-32.75>	Strong MT disseminated										
		MINERALIZATION- 4% fine grained to coarse grained										
		disseminated pyrite, often with calcite patches.										
	<31.90-32.75>	VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 4% fine grained to coarse grained										
		disseminated pyrite, often with calcite patches.										
	<32.75-33.13>	Trace MT disseminated										
		MINERALIZATION- 1% wispy disseminated pyrite.										
	<32.75-33.13>	VEINED & DISSEMINATED SULPHIDE										
		Strong patchy silica with irregular hematite chlorite										
		stringers. MINERALIZATION- 1% wispy disseminated										
		pyrite.										
	<33.13-33.22>	Weak MT patches										
		MINERALIZATION- semi massive medium grained pyrite										
		patch with calcite, 20% pyrite.										
	<33.13-33.22>	VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- semi massive medium grained pyrite										
		patch with calcite, 20% pyrite.										
35.00	37.70	volcaniclastics	51927	35.00-36.00	1.00	0.005		30.0	28.0	5.0	45.0	6.0
		Fine grained, redish-green, fractured	51928	36.00-37.00	1.00	0.005		30.0	9.0		43.0	4.0
		bedding 50°										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Frs=5/m :Vns =40/m										
		Weak SI patches										
		Strong CL pervasive										
		Moderate KS patches										
		Strong HE stockwork										
		Weak QC patches										
		Heterolithic/volcaniclastics with fine grained										
		tuffaceous fractures with hematite stockwork										
		intercalated with fine grained crystalline units.										
		Laminations or likely remnant bedding at 50 degrees.										
		ALTERATION- strong stockwork hematite often parallel										
		with bedding, strong pervasive and wispy chlorite,										
		local siliceous patches, generally in tuff, weak										
		quartz/calcite patches. Lower contact= indistinct.										
37.70	54.00	Semi-massive hematite	51929	37.00-38.00	1.00	0.010		29.0	314.0		80.0	6.0
		Aphanitic, dark red, massive	51930	38.00-39.00	1.00	0.050		21.0	81.0		63.0	4.0
		qz-carb veining 50°	51931	39.00-40.00	1.00	0.005		10.0	17.0		44.0	4.0
		Frs=10/m :Vns =30/m	51932	40.00-41.00	1.00	0.005		10.0	6.0		40.0	4.0
		Weak SI patches	51933	41.00-42.00	1.00	0.005		9.0	12.0		34.0	4.0
		Moderate CL pervasive	51934	42.00-43.00	1.00	0.010		12.0	19.0		61.0	4.0
		Intense HE pervasive	51935	43.00-44.00	1.00	0.120		16.0	59.0		71.0	18.0
		Trace SE microveins	51936	44.00-45.00	1.00	0.015		9.0	21.0		48.0	6.0
		Moderate QC microveins	51937	45.00-46.00	1.00	0.005		8.0	14.0		47.0	6.0
		Intense to strong pervasive hematite within	51938	46.00-47.00	1.00	0.005		8.0	13.0		43.0	6.0
		volcaniclastic, BHFl and HFxl, (see nested intercals).	51939	47.00-48.00	1.00	0.005		15.0	32.0		46.0	6.0
		Generally very fine grained intense pervasive	51940	48.00-49.00	1.00	0.005	0.20	17.0	84.0		24.0	6.0
		hematite, with much less stockwork, local specularite	51941	49.00-50.00	1.00	0.005	0.20	12.0	120.0		23.0	6.0
		within tension fractures, moderate to weak chlorite	51942	50.00-51.00	1.00	0.005		13.0	65.0		26.0	6.0
		pervasive and with quartz/calcite in tension fractures	51943	51.00-52.00	1.00	0.005		16.0	33.0		19.0	
		generally at 50 degrees.	51945	52.00-53.00	1.00	0.005		10.0	9.0		19.0	
<37.70-39.90>		volcaniclastics										
		Aphanitic, dark red, fractured, laminated										
		Likely before tuffaceous volcaniclastics, very fine										
		grained highly contorted and laminated.										
<39.90-46.00>		Biotite Hbl Fdsp xtalline										
		Fine grained, dark red, crystalline										
		BHFl, very fine grained with 3% copper to red coloured										
		euhedral biotite phenos to 3mm.										
<41.80-44.20>		spec/calcite/chlorite vein										
		qz-carb veining 50°										
		Weak SE microveins										
		Moderate QC microveins										
		Quartz/calcite/specularite/chlorite veins to 4mm.,										

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	irregular at 50 degrees.										
<42.19-42.22>	MINERALIZATION- 1% calcopyrite within calcite/quartz veins/tension fractures.										
<42.19-42.22>	MINERALIZATION- 1% calcopyrite within calcite/quartz veins/tension fractures.										
<42.22-54.00>	Hornblende Feldspar xtalline Aphanitic, dark red, massive Likely HFxl; however, no observable phenocrysts.	51946	53.00-54.00	1.00	0.005		11.0	8.0		20.0	
<54.00-91.00>	Fine grained, red, crystalline	51947	54.00-55.50	1.50	0.005		8.0	95.0	10.0	22.0	2.0
	qz-carb veining 40°	51948	55.50-57.00	1.50	0.005	0.20	9.0	228.0	20.0	22.0	4.0
	Frs=7/m :Vns =6/m	51949	57.00-58.50	1.50	0.005		12.0	38.0		25.0	
	Weak SI patches	51950	58.50-60.00	1.50	0.005		13.0	46.0	25.0	27.0	4.0
	Strong CL pervasive	51951	60.00-61.50	1.50	0.005		13.0	54.0	10.0	37.0	4.0
	Weak MS patches	51952	61.50-63.00	1.50	0.005		8.0	17.0		62.0	4.0
	Strong KS pervasive	51953	63.00-64.50	1.50	0.005		15.0	64.0	25.0	88.0	8.0
	Weak HE stockwork	51954	64.50-66.00	1.50	0.015		22.0	79.0	30.0	75.0	20.0
	Weak QC microveins	51955	66.00-67.50	1.50	0.010		14.0	85.0		39.0	6.0
	Medium to dark green HFxl with local zones of hematite	51956	67.50-69.00	1.50	0.005		9.0	19.0	5.0	85.0	4.0
	stockwork. Local mottled brecciated looking zones,	51957	69.00-70.50	1.50	0.005		21.0	31.0	40.0	91.0	28.0
	likely due to sheeted chlorite streaming, 25% dark to	51958	70.50-72.00	1.50	0.010		20.0	13.0	65.0	49.0	138.0
	light green sunbhedral hornblende needles to 2.5mm.,	51959	72.00-73.50	1.50	0.005		17.0	7.0	10.0	65.0	8.0
	very rare coppper coloured, dark green to light gray	51960	73.50-75.00	1.50	0.015		15.0	105.0		51.0	4.0
	euhedral biotite hexagins, very fine grained to	51961	75.00-76.50	1.50	0.005		14.0	27.0		44.0	4.0
	aphanitic matrix. ALTERATION- strong pervasive	51962	76.50-78.00	1.50	0.005		13.0	110.0	5.0	33.0	6.0
	chlorite, locally sheeted and braided, moderate to	51963	78.00-79.50	1.50	0.005		12.0	63.0	5.0	34.0	6.0
	absent stockwork and microfracture controlled hematite	51964	79.50-81.00	1.50	0.010		8.0	18.0	5.0	31.0	6.0
	with less pervasive, local weak patchy pervasive	51965	81.00-82.50	1.50	0.005		11.0	27.0		56.0	10.0
	silica, weak quartz/calcite/chlorite stockwork and	51966	82.50-84.00	1.50	0.005		16.0	20.0		59.0	6.0
	tension fractures.	51967	84.00-85.50	1.50	0.005		16.0	42.0	10.0	29.0	4.0
<54.00-65.80>	Weak SI patches Weak HE stockwork Weak irregular stockwork hematite and microfracture controlled, weak patchy silica.										
<65.51-65.53>	MINERALIZATION- 50% pyrite.										
<65.51-65.53>	pyrite vein or veinlet vein 90° 1cm. vuggy pyrite vein within coating at 90 degrees. MINERALIZATION- 50 pyrite.										
<68.20-69.10>	Hornblende feldspar breccia										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Possible HFBx with 30% very fine grained tuffaceous fragments or silicified patches likely due to alteration.										
<69.10-70.25>		Weak MT disseminated MINERALIZATION- 2% medium grained to coarse grained disseminated pyrite.										
<69.10-70.25>		Chlorite Streaming sheeting 40° Strong CL SHEETED Strong braided chlorite stringer at 40 degrees. MINERALIZATION- 2% medium grained to coarse grained disseminated pyrite.										
<70.35-79.20>		Weak SI patches Strong HE stockwork Strong pervasive hematite with less stockwork and microfracture controlled, good hematite stockwork zone, mush less in surrounding intervals, weak patchy silica.										
<85.65-85.71>		MINERALIZATION- trace calcopyrite.										
<85.65-85.71>		hematite vein 1cm. hematite/magnetite vein at 30 degrees. MINERALIZATION- trace calcopyrite.										
91.00	99.00	Hornblende Feldspar xtalline	51968	85.50-87.00	1.50	0.020		36.0	60.0	30.0	35.0	6.0
		Fine grained, redish-green, stockwork, crystalline	51969	87.00-88.50	1.50	0.010		8.0	24.0	5.0	32.0	8.0
		stringer 40°	51970	88.50-90.00	1.50	0.010		9.0	14.0	10.0	26.0	6.0
		Frs=6/m :Vns =30/m	51971	90.00-91.00	1.00	0.010		13.0	11.0	10.0	30.0	8.0
		Moderate SI patches	51972	91.00-92.00	1.00	0.005		32.0	23.0	10.0	33.0	8.0
		Moderate CL pervasive	51973	92.00-93.00	1.00	1.190		179.0	186.0	165.0	57.0	6.0
		Trace MT microveins	51974	93.00-94.00	1.00	0.780		216.0	251.0	235.0	39.0	8.0
		Moderate HE pervasive	51975	94.00-95.00	1.00	0.735		269.0	224.0	285.0	43.0	10.0
		Trace SE microveins	51976	95.00-96.00	1.00	0.170		138.0	62.0	130.0	61.0	8.0
		Weak QC patches	51977	96.00-97.00	1.00	0.005		43.0	87.0	35.0	63.0	6.0
		Weak H-zone? medium dark green to red green HFxl with weak to moderate pervasive hematite. Typical hornblendes and matrix. ALTERATION- moderate to weak pervasive and wispy hematite, moderate to strong pervasive and wispy chlorite, weak to moderate patchy pervasive silica, traces of magnetite/specularite within narrow hematite stringers common at 40 degrees, weak quartz/calcite patches, moderate disseminated and patchy milled leaky pyrite. May possibly be S-2a zone	51978	97.00-98.00	1.00	0.005		27.0	146.0	15.0	44.0	10.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		since at terminous of hematite stockwork zone.										
		<93.85-94.60> Moderate MT patches MINERALIZATION- 3% pyrite as coarse grained granular patches.										
		<93.85-94.60> hematite vein stringer 40° Moderate SI selvages Trace MT microveins Strong HE microveins Trace SE microveins Hematite +/- magnetite +/- specularite vein at 40 degrees to 1cm., 4 per meter with up to 1cm. K-spar, silica selvages. MINERALIZATION- 3% pyrite as coarse grained granular patches.										
		<97.60-97.72>MINERALIZATION- 30% pyrite.										
		<97.60-97.72> MASSIVE SULPHIDE VEIN vein 20° 1.5cm. massive coarse grained granular pyrite vein at 20 degrees. MINERALIZATION- 30% pyrite.										
99.00	112.20	Hornblende Feldspar xtalline	51979	98.00-99.50	1.50	0.005		15.0	55.0	5.0	36.0	10.0
		Fine grained, grayish-green, laminated, crystalline	51980	99.50-101.00	1.50	0.005		14.0	37.0	10.0	39.0	10.0
		laminations 30°	51982	101.00-102.50	1.50	0.005	0.40	117.0	194.0	8675.0	78.0	32.0
		Frs=6/m :Vns =30/m	51983	102.50-104.00	1.50	0.005		16.0	84.0	15.0	57.0	8.0
		Weak SI pervasive	51984	104.00-105.00	1.00	0.005		10.0	48.0	5.0	63.0	8.0
		Moderate CL wispy	51985	105.00-106.00	1.00	0.005		10.0	55.0	5.0	55.0	8.0
		Strong KS pervasive	51986	106.00-107.00	1.00	0.005		11.0	41.0	5.0	44.0	6.0
		Trace PY disseminated	51987	107.00-108.00	1.00	0.005		13.0	66.0		40.0	14.0
		Weak QC stockwork	51988	108.00-109.00	1.00	0.005		12.0	61.0	10.0	31.0	14.0
		S or S-2a zone halo, medium to light gray green HFxl	51989	109.00-110.00	1.00	0.005		12.0	54.0	10.0	35.0	10.0
		with 20% light gray sunhedral hornblende phenos to	51990	110.00-111.00	1.00	0.005		12.0	47.0	15.0	52.0	10.0
		2mm., very fine grained matrix. ALTERATION- moderate	51991	111.00-112.00	1.00	0.175		24.0	78.0	20.0	83.0	14.0
		laminated or sheeted chlorite at 30 degrees with less pervasive, decreasing towards lower contact, trace disseminated hematite, weak patchy silica, weakly mineralized quite fine grained. MINERALIZATION- 2% fine grained disseminated pyrite, trace to 0.3% disseminated arsenopyrite.										
		<99.00-112.20> Moderate MT disseminated .2% arsenopyrite - disseminated MINERALIZATION- 3% fine grained disseminated pyrite, trace to 0.3% disseminated arsenopyrite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
112.20	121.41	Hornblende Feldspar xtalline	51992	112.00-113.00	1.00	0.115	0.40	16.0	279.0	15.0	75.0	12.0
		Fine grained, greenish-gray, crystalline, laminated	51993	113.00-114.00	1.00	0.055	0.20	11.0	117.0	15.0	66.0	18.0
		laminations 50°	51994	114.00-115.00	1.00	0.125	0.40	15.0	301.0	20.0	67.0	16.0
		Frs=5/m :Vns =30/m	51995	115.00-116.00	1.00	0.005		11.0	54.0	10.0	47.0	8.0
		Moderate SI pervasive	51996	116.00-117.00	1.00	0.010		15.0	75.0	25.0	49.0	10.0
		Weak CL wispy	51997	117.00-118.00	1.00	0.060		17.0	55.0	25.0	69.0	12.0
		Moderate MS pervasive	51998	118.00-119.00	1.00	0.035		30.0	122.0	35.0	69.0	18.0
		Strong KS pervasive	51999	119.00-120.00	1.00	0.010		18.0	111.0	20.0	64.0	12.0
		Trace HE disseminated	52000	120.00-121.00	1.00	0.645	0.60	34.0	497.0	255.0	72.0	10.0
		Weak PY disseminated										
		Weak QC stockwork										
		Typical green gray HFxl with S zone halo? with 20%										
		light gray subhedral hornblende laths and needles to										
		4mm., very fine grained matrix. ALTERATION- weak to										
		moderate wispy chlorite, weak to moderate pervasive										
		silica, likely moderate to strong pervasive K-spar,										
		disseminated with less stringers pyrite with less										
		arsenopyrite, wispy chloritic laminations (weak										
		chlorite streaming, often at 50 degrees), moderate										
		pervasive light green sericite.										
	<116.00-119.70>	MINERALIZATION- 0.3% arsenopyrite, 3% pyrite.										
	<116.00-119.70>	VEINED & DISSEMINATED SULPHIDE										
		stringer 45°										
		Moderate CL stringer										
		Chlorite +/- sulphide stringers to 2mm., often at 45										
		degrees, about 3 per meter with 1cm. K-spar, silica										
		slevages. MINERALIZATION- 0.3% arsenopyrite, 3%										
		pyrite.										
121.41	122.61	semi-massive sulphides	49001	121.00-122.00	1.00	4.530	1.20	336.0	572.0	2225.0	100.0	8.0
		Fine grained, blackish-red, veined	49002	122.00-122.61	0.61	2.540	0.40	207.0	225.0	1095.0	64.0	10.0
		vein 45°:contact 40°										
		Frs=3/m :Vns =55/m										
		Strong SI patches										
		Strong CL SHEETED										
		Moderate MS pervasive										
		Weak MT vein										
		Moderate HE patches										
		Moderate QC stockwork										
		Moderate S-2a zone with strong veined chlorite with										
		less magnetite, hematite, pyrite and arsenopyrite										
		within HFxl, strong patchy silica, vein/foliation										
		strong at 40 to 50 degrees, average 45 degrees.										
		MINERALIZATION- 3% medium grained granular										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		arsenopyrite, 4% medium grained granular pyrite patches and veins, 0.2% disseminated calcopyrite.										
122.61	133.54	Hornblende Feldspar xtalline	49003	122.61-124.00	1.39	0.055		31.0	135.0	55.0	62.0	4.0
		Fine grained, gray, crystalline	49004	124.00-125.00	1.00	0.050	0.20	34.0	137.0	90.0	49.0	
		contact 50°:foliated 40°	49005	125.00-126.10	1.10	0.035	0.20	26.0	116.0	70.0	53.0	
		Moderate SI pervasive	49006	126.10-127.10	1.00	0.560		43.0	222.0	200.0	68.0	
		Trace CL wispy	49007	127.10-128.00	0.90	0.040		34.0	160.0	215.0	46.0	
		Moderate MS pervasive	49008	128.00-129.00	1.00	0.030		34.0	153.0	135.0	50.0	
		Moderate KS pervasive	49009	129.00-130.00	1.00	0.270		28.0	110.0	320.0	55.0	
		Moderate PY disseminated	49010	130.00-131.00	1.00	0.770	0.40	123.0	104.0	1345.0	59.0	26.0
		S-2a zone halo? medium gray typical HFxl cross cut by	49011	131.00-132.00	1.00	0.335	1.40	23.0	389.0	75.0	70.0	14.0
		narrow BHFl dykes, contacts at 50 degrees. ALTERATION-	49012	132.00-133.00	1.00	0.970	0.20	10.0	59.0	30.0	48.0	32.0
		moderate pervasive K-spar, likely moderate to weak	49013	133.00-133.54	0.54	0.075		10.0	26.0	30.0	59.0	4.0
		pervasive silica, moderate irregular quartz/calcite stockwork, moderate pervasive sericite, weak to absent wispy chlorite at 50 to 40 degrees, often with pyrite and irregular veins and fine arsenopyrite. Lower contact=sharp at 40 degrees. MINERALIZATION- 3% pyrite, trace arsenopyrite.										
		<122.61-133.54> MINERALIZATION- 3% pyrite, trace arsenopyrite.										
		<130.27-130.61> MINERALIZATION- 6% pyrite.										
		<130.27-130.61> Biotite Hbl Fdsp xtalline Fine grained, gray, crystalline contact 50° 20cm. wide BHFl dyke with 15% cream biotite/augite phenos, euhedral to 2mm. Upper contact=lower contact=50 degrees with pyrite veins with chlorite to 1cm. MINERALIZATION- 6% pyrite.										
		<133.07-133.54> ?? MT patches MINERALIZATION- 6% coarse grained pyrite as granular patches and irregular veins to 6mm.										
		<133.07-133.54> VEINED & DISSEMINATED SULPHIDE sheeting 40° Strong SI pervasive Strong CL SHEETED Strong pervasive silica, aphanitic HFxl, chill margin? with strong sheeted chlorite=lower contact=40 degrees. MINERALIZATION- 6% coarse grained pyrite as granular patches and irregular veins to 6mm.										
133.54	135.94	Biotite Hbl Fdsp xtalline	49014	133.54-134.00	0.46	0.080		71.0	13.0	775.0	30.0	6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Fine grained, gray, crystalline	49015	134.00-135.00	1.00	0.075		7.0	27.0	20.0	33.0	6.0
		contact 35°										
		Frs=4/m :Vns =8/m										
		Strong SI pervasive										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Weak QC stockwork										
		Medium green BHFl with 15% cream augite/biotite										
		phenos, aphanitic matrix. ALTERATION- moderate to										
		strong pervasive silica, moderate pervasive sericite,										
		likely moderate pervasive K-spar. Lower contact=gougy										
		fault zone at 35 degrees.										
	<134.62-134.8	MINERALIZATION- 6% pyrite, 0.3% arsenopyrite within										
		intensely silicified patch. Sulphide=medium grained										
		granular.										
	<134.62-134.84>	VEINED & DISSEMINATED SULPHIDE										
		Intense SI pervasive										
		MINERALIZATION- 6% pyrite, 0.3% arsenopyrite within										
		intensely silicified patch. Sulphide=medium grained										
		granular.										
	<135.45-135.94>	rubbly fault zone										
		gouge 35°										
		Moderate gougy fault zone with strong angular gougy										
		broken core, gougy slips at 45 degrees.										
135.94	153.50	Hornblende Feldspar xtalline	49016	135.00-136.00	1.00	0.045		15.0	23.0	215.0	40.0	2.0
		Fine grained, gray, crystalline	49017	136.00-137.00	1.00	0.315	0.20	47.0	95.0	405.0	37.0	6.0
		stringer 30°	49018	137.00-138.00	1.00	1.020	0.20	87.0	90.0	830.0	41.0	4.0
		Frs=7/m :Vns =20/m	49019	138.00-139.00	1.00	0.195		56.0	100.0	575.0	40.0	4.0
		Weak SI pervasive	49020	139.00-140.00	1.00	5.480	0.40	208.0	110.0	4585.0	42.0	4.0
		Trace CL wispy	49021	140.00-141.00	1.00	0.050		15.0	74.0	25.0	42.0	6.0
		Moderate MS pervasive	49022	141.00-142.00	1.00	0.760	0.20	184.0	73.0	5110.0	43.0	6.0
		Moderate KS pervasive	49023	142.00-143.00	1.00	0.040		15.0	61.0	35.0	49.0	4.0
		Weak PY patches	49024	143.00-144.00	1.00	0.045		15.0	66.0	20.0	79.0	
		Weak QC microveins	49025	144.00-145.00	1.00	0.080		29.0	115.0	210.0	63.0	
		Medium gray to green gray locally mottled HFxl, weak	49026	145.00-146.00	1.00	0.060		15.0	109.0	15.0	57.0	
		mottling and indicative grain size differentials,	49027	146.00-147.00	1.00	0.115		15.0	53.0	10.0	66.0	
		possibly indicative of fragmental. ALTERATION- weak	49028	147.00-148.00	1.00	0.045		15.0	47.0	15.0	69.0	6.0
		pervasive silica, moderate pervasive K-spar, locally	49029	148.00-149.00	1.00	0.030		16.0	20.0	70.0	51.0	6.0
		absent moderate pervasive chlorite, weak patchy	49030	149.00-150.50	1.50	0.050		27.0	84.0	585.0	65.0	8.0
		quartz/calcite stockwork, however host to weak	49031	150.50-152.00	1.50	0.030		25.0	84.0	75.0	45.0	4.0
		sulphide with strongers at 30 degrees. Lower	49032	152.00-153.50	1.50	0.175		18.0	48.0	65.0	47.0	4.0
		contact=fault zone, spotty arsenopyrite, pyrite										
		mineralization.										

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<136.45-136.55>	Intense MT patches .5% arsenopyrite - patches MINERALIZATION- 6% pyrite, 0.5% arsenopyrite as medium grained granular patches and stringers at 50 degrees within intense silicified pervasive patch.										
<136.45-136.55>	VEINED & DISSEMINATED SULPHIDE stringer 50° Intense SI pervasive MINERALIZATION- 6% pyrite, 0.5% arsenopyrite as medium grained granular patches and stringers at 50 degrees within silicified pervasive patch.										
<137.10-138.00>	rubbly fault zone gouge 30° Several small gougy slips at 30 to 40 degrees, however often steep to core axis. **NOTE: S zone is nearly always overprinted by a weak fault zone.										
<139.32-139.70>	Moderate MT stringer 5 % arsenopyrite - stringer MINERALIZATION- 5% arsenopyrite, 3% pyrite as stringers to 8mm. at 30 degrees within dark green patchy chlorite and strong silicification.										
<139.32-139.70>	VEINED & DISSEMINATED SULPHIDE stringer 30° Strong SI pervasive Strong CL patches MINERALIZATION- 5% arsenopyrite, 3% pyrite as stringers to 8mm. at 30 degrees within dark green patchy chlorite and strong silicification.										
<141.79-141.85>	Intense MT vein 30% arsenopyrite - vein MINERALIZATION- 1cm. arsenopyrite>pyrite vein at 40 degrees, 30% arsenopyrite, 5% pyrite, moderate silica selvage.										
<141.79-141.85>	MASSIVE SULPHIDE VEIN vein 40° Moderate SI selvages MINERALIZATION- 1cm. arsenopyrite>pyrite vein at 40 degrees, 30% arsenopyrite, 5% pyrite, moderate silica selvage.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<142.85-150.70>		Strong MT disseminated MINERALIZATION- S zone halo? with 4% medium grained disseminated pyrite, fragments within moderate wispy pervasive chlorite.										
<142.85-150.70>		VEINED & DISSEMINATED SULPHIDE Moderate CL pervasive MINERALIZATION- S zone halo? with 4% medium grained disseminated pyrite, fragments within moderate wispy pervasive chlorite.										
<152.70-153.00>		rubbly fault zone gouge 55° GBFZ. Several with weak gougy slips from 50 to 60 degrees. Average at 55 degrees.										
<153.50-162.44>		gouge 45°:contact 80°	49033	153.50-156.00	2.50	3.850	0.40	213.0	73.0	2610.0	51.0	6.0
		Frs=80/m :Vns =8/m	49034	156.00-157.50	1.50	0.040		17.0	40.0	40.0	45.0	6.0
		Weak SI pervasive	49035	157.50-159.00	1.50	0.015		23.0	76.0	30.0	48.0	
		Trace CL pervasive	49036	159.00-160.50	1.50	0.020	0.20	16.0	24.0	45.0	31.0	
		Moderate MS pervasive	49037	160.50-162.00	1.50	0.030	0.20	31.0	90.0	25.0	89.0	6.0
		Moderate KS pervasive	49038	162.00-162.44	0.44	0.020	0.40	23.0	82.0	20.0	113.0	10.0
		Trace CV patches Gougy fault zone overprinted and HFxl? crystall tuff? Massive crystalline unit with 25% light gray to light green subhedral hornblende needles to 1.5mm. aphanitic matrix. No strong foliation so likely HFxl, but 3cm. fragments or layers of argillite possibly present in fragments. ALTERATION- moderate pervasive sericite, K-spar, locally weak pervasive chlorite, weak patchy calcite, gougy slip plans common at 40 to 50 degrees, average 45 degrees. Lower contact=sharp at 80 degrees.										
162.44	163.50	mudstone	49039	162.44-163.50	1.06	0.075	2.20	9.0	21.0	145.0	46.0	6.0
		Fine grained, black, contorted contact 60° Frs=15/m :Vns =70/m Strong CL pervasive Intense QC patches Strongly contorted siliceous black mudstone with numerous irregular quartz/calcite patches. Strong pervasive chlorite? Lower contact=sharp at 60 degrees.										
163.50	168.62	tuff	49040	163.50-165.00	1.50	0.015		16.0	22.0	15.0	39.0	8.0
		Fine grained, greenish-gray, crystalline, foliated	49041	165.00-166.50	1.50	0.005	0.40	13.0	28.0	10.0	30.0	8.0
		foliated 50°	49042	166.50-167.55	1.05	0.005	0.20	9.0	17.0	10.0	26.0	4.0
		Frs=20/m :Vns =12/m	49043	167.55-168.62	1.07	0.005	0.60	14.0	49.0	20.0	27.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong MS pervasive Moderate CV patches Medium green gray likely lapilli tuff with subangular fragments to 2.5cm. within fine grained crystalline matrix. Moderate foliation likely remnant bedding at 50 degrees, strong pervasive sericite, moderate patchy calcite veins.										
168.62	171.20	mudstone	49044	168.62-170.50	1.88	0.005	0.60	15.0	90.0	50.0	73.0	8.0
		Aphanitic, black, fractured, graphitic	49045	170.50-171.20	0.70	0.015	2.20	17.0	80.0	60.0	84.0	40.0
		Frs=100/m :Vns =10/m Weak MS patches Moderate QC patches Black highly contorted weakly graphitic argillite/mudstone bedding, from 70 to 0 degrees, highly fractured and broken, local sericitic crystalline patches (crystal tuff layers) and moderate irregular calcite patches.										
171.20	179.83	tuff	49046	171.20-172.50	1.30	0.020	2.60	17.0	45.0	65.0	403.0	202.0
		Fine grained, greenish-gray, broken, crystalline	49047	172.50-174.00	1.50	0.020	1.20	22.0	50.0	25.0	92.0	10.0
		foliated 50°	49048	174.00-175.50	1.50	0.010	1.60	22.0	58.0	25.0	86.0	24.0
		Frs=80/m	49049	175.50-177.00	1.50	0.225	2.60	23.0	61.0	115.0	170.0	36.0
		Strong MS pervasive	49050	177.00-178.50	1.50	0.015	2.40	23.0	61.0	75.0	213.0	42.0
		Weak CV patches	49051	178.50-179.83	1.33	0.010	1.60	21.0	49.0	80.0	73.0	20.0
		Crystal tuff or unlikely highly foliated HFx1, medium green gray foliated at 50 degrees with crystalline matrix. ALTERATION- strong pervasive sericite, weak calcite stockwork, moderate broken core throughout. Lower contact= E.O.H.										
(eoh)												

12/04/96

Hole: CL96-56 GEOTECHNICAL DATA Page: 1

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-57

PROJECT: Clone	Date Commenced: 19/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-57	Date Completed: 20/08/96		Geotech by:
LENGTH: 206.70	Core Diam: BQTK		

Collar Location

Latitude:	2148.18
Departure:	2048.95
Elevation:	1415.17

S U M M A R Y

0.00-22.12	Debris flow
22.12-40.47	volcaniclastics *
40.47-44.89	Biotite Hbl Fdsp xtalline
44.89-49.32	volcaniclastics
49.32-52.90	Biotite Hbl Fdsp xtalline
52.90-67.20	Hornblende Feldspar xtalline
67.20-89.90	Biotite Hbl Fdsp xtalline
89.90-102.50	Hornblende Feldspar xtalline
102.50-111.70	Biotite Hbl Fdsp xtalline
111.70-121.50	Hornblende Feldspar xtalline *
121.50-123.54	Semi-massive hematite *
123.54-142.16	Hornblende Feldspar xtalline *
142.16-156.00	Hornblende Feldspar xtalline ***
156.00-170.87	Hornblende Feldspar xtalline *
170.87-171.03	tuff
171.03-172.21	rubbly fault zone
172.21-185.10	volcaniclastics *
185.10-186.60	Broken Core
186.60-193.25	volcaniclastics *
193.25-194.65	rubbly fault zone
194.65-206.70	volcaniclastics *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-61.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	22.12	Debris flow	49052	3.00-4.50	1.50	0.020	2.20	14.0	102.0	25.0	263.0	34.0
		Red, heterolithic, foliated	49053	9.00-10.50	1.50	0.015	1.80	14.0	84.0	20.0	256.0	38.0
		foliated 45°:cleavage, foliation 90°	49054	12.50-14.00	1.50	0.105	2.20	19.0	134.0	25.0	315.0	30.0
		Frs=8/m :Vns =8/m	49055	20.00-21.50	1.50	0.010		26.0	19.0	15.0	44.0	6.0
		Trace SI patches										
		Moderate CL pervasive										
		Weak MS patches										
		Intense HE interstitial										
		Weak CV microveins										
		Hematic foliated heterolithic debris flows or megabreccia; fine grained hematic matrix supported with 65% heterolithic clasts; 45% intermediate fine grained to coarse grained intrusive fragments, 55% very fine grained crystalline at litholized fragments, all subangular to subrounded. Foliation consists at 45 degrees, often steepening to 50 degrees. ALTERATION-strong to intense interstitial hematite, local strong pervasive chlorite, selective alteration of other fragments, moderate to strong silica, and sericite, weak calcite stockwork, generally at 90 degrees. Lower contact=reasonably sharp, irregular.										
	<6.04-6.70>	Broken Core										
		Oxidized, bleached										
		fracturing 35°										
		Moderate angular broken core with strong bleaching, limonite fracture fill. Fractures consistant at 35 degrees.										
	<7.00-9.50>	foliated 45°										
		Strong foliation at 45 degrees.										
	<12.50-14.35>	foliated 45°										
		Strong foliation at 45 degrees.										
	<14.40-16.18>	Strong CL pervasive										
		Moderate HE patches										
		Strong pervasive chlorite, selective patchy alteration of hematite fragments.										
	<17.00-19.00>	foliated 45°										
		Strong foliation at 45 degrees.										
22.12	40.47	volcaniclastics	49056	27.00-28.50	1.50	0.005		27.0	89.0		34.0	4.0
		Medium grained, redish-green, mottled, crystalline	49057	32.00-33.50	1.50	0.005		19.0	69.0	30.0	38.0	8.0
		Frs=9/m :Vns =35/m	49058	34.50-36.00	1.50	0.010		24.0	57.0	30.0	39.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate CL pervasive	49059	36.00-37.50	1.50	0.005		18.0	43.0	15.0	36.0	8.0
		Weak MS pervasive	49060	37.50-39.00	1.50	0.005		18.0	41.0	35.0	37.0	6.0
		Strong KS pervasive										
		Trace EP stockwork										
		Moderate HE stockwork										
		Weak PY disseminated										
		Moderate CV stockwork										
		Weak to moderate hematite stockwork zone within possible volcanic breccia with crystalline matrix or HFxl mottled texture with 2% black unknown elongate phenos or mudstone beds, 4% very fine grained to aphanitic matrix, often stratified tuffaceous fragments, matrix often weakly foliated at 50 degrees, locally possible needlelike light green hornblende phenos to 1mm. ALTERATION- moderate to weak stockwork with less microfracture controlled hematite, moderate pervasive chlorite, probable moderate to strong pervasive K-spar, weak calcite stockwork +/- quartz +/- chlorite with rare epidote. Lower contact= indistinct by introduction of copper coloured biotite phenos.										
<23.00-26.00>		QUARTZ-CALCITE VEINS qz-carb veining 45° :Vns =1/m Quartz/calcite/chlorite/epidote veins commonly at 45 degrees to 2cm., 1 per meter.										
<28.70-37.15>		Moderate MT disseminated MINERALIZATION- 3% fine grained to coarse grained disseminated pyrite.										
<28.70-37.15>		VEINED & DISSEMINATED SULPHIDE Moderate to strong pervasive chlorite, trace to absent disseminated hematite. MINERALIZATION- 3% fine grained to coarse grained disseminated pyrite.										
<38.70-40.47>		Moderate pervasive hematite with weak patchy silica.										
40.47	44.89	Biotite Hbl Fdsp xtalline Fine grained, redish-green, mottled, crystalline Frs=4/m :Vns =30/m Strong CL pervasive Moderate KS pervasive Moderate HE wispy Weak CV stockwork Hematite stockwork zone within blackish green over	49061	42.00-43.50	1.50	0.010		17.0	25.0		34.0	6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		green to reddish green BHFl? Mottled blackish fragments/phenos, 3% copper coloured euhedral biotite phenos to 2mm. Still has weakly fragmental appearance, subrounded tuffaceous looking beds. ALTERATION- moderate stockwork hematite, moderate pervasive chlorite, weak irregular calcite stockwork. Lower contact=indistinct.										
44.89	49.32	volcaniclastics	49062	46.00-47.50	1.50	0.050		30.0	48.0		46.0	6.0
		Medium grained, greenish-red, heterolithic, mottled foliated	49063	47.50-49.00	1.50	0.005		24.0	19.0		39.0	6.0
		Frs=6/m :Vns =30/m Moderate CL pervasive Moderate KS pervasive Strong EP stockwork Weak CV stockwork Heterolithic strongly mottled fragmental volcaniclastic with 20% intermediate intrusive with oikiocrysts, 80% tuffaceous subangular to subrounded matrix supported. ALTERATION- strong pervasive and stockwork hematite, moderate to strong pervasive chlorite, weak calcite fracture fill, weak patchy silica. Lower contact= indistinct. Weak foliation at 30 degrees.										
49.32	52.90	Biotite Hbl Fdsp xtalline	49064	49.00-50.50	1.50	0.005		13.0	42.0		26.0	4.0
		Fine grained, redish-green, crystalline, stockwork Frs=7/m :Vns =25/m Strong CL pervasive Moderate MS pervasive Strong KS pervasive Strong HE stockwork Weak CV stockwork Hematite stockwork zone within BHFl with weakly taxitic subhedral biotite phenos, copper or cream coloured to 5mm., 20% light gray to light green commonly cryptic hornblende phenos to 1.5mm., very fine grained to aphanitic matrix. ALTERATION- strong to moderate stockwork hematite, moderate pervasive chlorite, local weak patchy light green sericite, probable stron pervasive K-spar. Lower contact=indistinct.										
52.90	67.20	Hornblende Feldspar xtalline	49065	54.00-55.50	1.50	0.010	0.40	8.0	366.0		27.0	6.0
		Fine grained, redish-green, crystalline, stockwork	49067	59.50-61.00	1.50	0.010		8.0	20.0		29.0	10.0
		qz-carb veining 70°	49068	65.00-66.50	1.50	0.010		10.0	19.0		33.0	6.0
		Frs=11/m :Vns =90/m										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate CL pervasive Weak MS pervasive Strong KS pervasive Strong HE stockwork Moderate QC microveins Hematite stockwork zone within red green to green red HFxl with 25% subhedral light green to light gray hornblende phenos to 1.5mm. very fine grained to aphanitic matrix. ALTERATION- moderate to strong pervasive wtih less stockwork and microfracture controlled hematite, moderate pervasive chlorite, moderate stockwork calcite +/- quartz +/- chlorite, commonly at 70 degrees. Local sections of absent hematite.										
<54.30-59.65>		VEINED & DISSEMINATED SULPHIDE microveins 70° Moderate CL pervasive SXVD. MINERALIZATION- 3% pyrite as medium grained granular patches with less dissemination and veins to 1cm. at 70 degrees, moderate to strong pervasive chlorite, absent hematite.										
<62.10-63.15>		Broken Core Fine grained, foliated foliated 70° Moderate broken core with strong chloritic +/- quartz foliation at 70 degrees, with medium grained gouge.										
67.20	89.90	Biotite Hbl Fdsp xtalline	49069	74.00-75.50	1.50	0.010		17.0	7.0		30.0	6.0
		Fine grained, greenish-red, stockwork, crystalline	49070	79.00-80.50	1.50	0.080	0.20	11.0	31.0	10.0	165.0	10.0
		qz-carb veining 70°	49071	82.00-83.50	1.50	0.300	0.20	45.0	68.0	5.0	103.0	10.0
		Frs=9/m :Vns =40/m	49072	83.50-85.00	1.50	0.040	0.40	20.0	214.0	5.0	62.0	6.0
		Trace SI selvages	49073	85.00-86.00	1.00	0.095		58.0	19.0	5.0	74.0	
		Moderate CL pervasive	49074	86.00-87.00	1.00	3.120		140.0	27.0	15.0	79.0	4.0
		Weak MS patches	49075	87.00-88.00	1.00	1.440	0.20	258.0	39.0	125.0	66.0	6.0
		Strong KS pervasive	49076	88.00-89.00	1.00	2.410	0.20	180.0	27.0	60.0	91.0	4.0
		Strong HE stockwork Moderate QC stockwork Hematite stockwork zone with red green to medium to dark red BHFl with 10% copper coloured euhedral biotite phenos to 5mm., typical hornblendes and matrix. ALTERATION- strong pervasive with less stockwork and microfracture controlled hematite, moderate to weak pervasive chlorite, likely strong pervasive K-spar, moderate calcite +/- quartz +/- chlorite with rare epidote stockwork and tension										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		fractures commonly at 70 degrees, weak silica as hematite vein selvages increasing towards lower contact.										
		<79.49-80.42> Strong MS pervasive Strong pervasive light apple green sericite.										
		<82.00-85.40> Weak SI patches Strong HE pervasive Strong pervasive hematite, weak patchy silica.										
		<82.27-82.33> hematite vein 2cm. massive hematite vein at 25 degrees.										
		<82.50-89.90> Semi-massive hematite Veined stringer 25° Moderate SI selvages Strong KS pervasive Strong HE stringer Weak H-zone? Strong pervasive hematite with less stringers of hematite to 3mm. with 2cm. silica/K-spar selvages.										
89.90	102.50	Hornblende Feldspar xtalline	49077	89.00-90.50	1.50	0.005		57.0	23.0	10.0	103.0	4.0
		Fine grained, crystalline, stockwork	49078	92.00-93.50	1.50	0.005		9.0	25.0		37.0	4.0
		:qz-carb veining 70°	49079	99.50-101.00	1.50	0.005		11.0	59.0		48.0	12.0
		Frs=5/m :Vns =40/m Moderate CL pervasive Moderate MS pervasive Trace EP microveins Strong HE stockwork Moderate QC microveins HFx1 or HFx1/BHF1 transition zone with 1% light gray subhedral platy biotite phenos, 20% light gray to cream subhedral hornblende needles to 2.5mm., very fine grained to aphanitic matrix. ALTERATION- strong pervasive moderate patchy pervasive apple green sericite, strong stockwork hem,atite at 35 degrees, moderate pervasive chlorite, moderate to strong stockwork calcite +/-quartz with rare chlorite and epidote, common at 70 degrees.										
		<89.90-93.35> Strong MS pervasive Strong pervasive sericite, light apple green.										
		<97.00-102.50> QUARTZ-CALCITE VEINS										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		:qz-carb veining 65°										
		:Vns =60/m										
		Moderate CL microveins										
		Weak EP microveins										
		Strong QC microveins										
		Quartz/calcite/chlorite +/- wpidote with rare pyrite tension fractures at 70 degrees, shell veins angular to 60 degrees, 60 per meter.										
102.50	111.70	Biotite Hbl Fdsp xtalline	49080	107.00-108.43	1.43	0.005	0.20	15.0	47.0	5.0	38.0	4.0
		Fine grained, redish-green, crystalline, stockwork	49081	108.43-110.00	1.57	0.005		11.0	54.0		40.0	6.0
		qz-carb veining 70°	49082	110.00-110.90	0.90	0.035	0.60	63.0	244.0	40.0	62.0	4.0
		Frs=7/m :Vns =25/m	49083	110.90-111.60	0.70	4.020	2.20	362.0	199.0	400.0	80.0	4.0
		Trace SI selvages										
		Strong CL pervasive										
		Strong KS pervasive										
		Trace EP microveins										
		Moderate HE stockwork										
		Trace QC microveins										
		Weak hematite stockwork zone within BHFl with 2 to 5% euhedral light gray or copper coloured phenos to 4mm., 20% light gray and light green subhedral hornblende laths and needles to 2mm., very fine grained to aphanitic matrix. ALTERATION- weak stockwork hematite, semi-massive in S2s at lower contact, medium to strong pervasive chlorite, likely strong pervasive K-spar with moderate calcite stockwork +/- quartz +/- epidote at 70 degrees, trace epidote as rare chlorite/hematite vein selvages.										
<110.90-111.60>		massive hematite										
		vein 55°										
		Intense CL pervasive										
		Intense HE vein										
		H-zone? Massive hematite with steel gray magnetite but no magnetic mineral with intense pervasive dark green chlorite, veins to 12cm. at 55 degrees. No observed sulphides.										
111.70	121.50	Hornblende Feldspar xtalline	49084	111.60-113.00	1.40	0.010		88.0	121.0	45.0	83.0	2.0
		Fine grained, green, crystalline	49085	119.00-120.50	1.50	0.005	0.40	14.0	82.0	15.0	60.0	28.0
		qz-carb veining 70°	49086	120.50-121.50	1.00	0.010		13.0	68.0	5.0	59.0	4.0
		Frs=4/m :Vns =20/m										
		Weak SI pervasive										
		Strong CL pervasive										
		Weak MT patches										
		Strong KS pervasive										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Trace HE wispy										
		Weak PY disseminated										
		Weak QC microveins										
		Typical HFxl with trace hematite stockwork with 25%										
		light gray easily observed subhedral hornblende laths										
		and needles to 2mm., very fine grained to aphanitic										
		matrix. ALTERATION- strong pervasive chlorite, weak to										
		trace wispy hematite, local moderate pervasive										
		magnetite, weak pervasive silica, moderate										
		quartz/calcite stockwork at 70 degrees.										
	<117.10-120.65>	Moderate MT disseminated										
		MINERALIZATION- 3% fine grained to coarse grained										
		wispy disseminated pyrite.										
	<117.41-120.65>	VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 3% fine grained to coarse grained										
		wispy disseminated pyrite.										
	<120.65-121.50>	Moderate MT pervasive										
		Weak HE wispy										
		Moderate pervasive magnetite, weak wispy hematite.										
121.50	123.54	Semi-massive hematite	49087	121.50-123.00	1.50	0.030		13.0	95.0	10.0	45.0	6.0
		Redish-black, foliated	49088	123.00-123.54	0.54	0.380	2.60	47.0	357.0	105.0	136.0	18.0
		foliated 10°:contact 50°										
		Intense CL pervasive										
		Moderate HE patches										
		S2a zonw with foliation nearly parallel to core axis,										
		moderate patchy hematite, intense pervasive black										
		chlorite. MINERALIZATION- 8% medium grained to coarse										
		grained patchy pyrite, 1% disseminated calcopyrite.										
		Lower contact=sharp at 50 degreess.										
	<123.00-123.54>	?? MT patches										
		1 % chalcopyrite - disseminated										
		MINERALIZATION- 8% medium grained to coarse grained										
		patchy pyrite, 1% disseminated calcopyrite. Lower										
		contact=sharp at 50 degrees.										
123.54	142.16	Hornblende Feldspar xtalline	49089	123.54-125.00	1.46	0.005		13.0	113.0	10.0	68.0	36.0
		Fine grained, green, crystalline	49090	125.00-126.00	1.00	0.025	0.40	19.0	93.0	10.0	70.0	20.0
		qz-carb veining 70°	49091	127.50-129.00	1.50	0.045	0.40	23.0	92.0	30.0	54.0	10.0
		Frs=5/m :Vns =25/m	49092	132.50-134.00	1.50	0.360		37.0	218.0	45.0	71.0	6.0
		Moderate CL pervasive	49093	134.00-135.00	1.00	0.240		40.0	177.0	55.0	132.0	
		Strong KS pervasive	49094	135.00-136.50	1.50	0.035		33.0	145.0	30.0	82.0	
		Moderate CV stockwork	49095	136.50-138.00	1.50	0.040		34.0	175.0	30.0	135.0	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Medium to dark green HFxl with 25% light gray - subhedral hornblende laths and needles to 1.5mm., very fine grained matrxi. ALTERATION- strong to moderate wispy and pervasive chlorite, decreasing towards lower contact, likely strong pervasive K-spar, weak calcite stockwork, commonly at 70 degrees. MINERALIZATION- 3% wispy fine grained to medium grained pyrite, increasing towards lower contact.	49096	138.00-139.50	1.50	0.040		36.0	183.0	35.0	97.0	2.0
			49097	139.50-141.00	1.50	0.350		57.0	169.0	60.0	94.0	10.0
		<123.54-142.16> Moderate MT wispy MINERALIZATION- 3% wispy fine grained to medium grained pyrite, increasing towards lower contact.										
142.16	156.00	Hornblende Feldspar xtalline Fine grained, gray, crystalline, mineralized zone qz-carb veining 70° Frs=6/m ;Vns =15/m Weak SI pervasive Trace CL wispy Moderate MS pervasive Moderate KS pervasive Weak PY patches Weak QC microveins S-zone horizon, medium gray to green gray to pinkish gray HFxl with 20% subhedral hornblende laths and needles, very fine grained to aphanitic matrix, local sections of patchy pyrite>arsenopyrite>calcopyrite. ALTERATION- moderate pervasive sericite, weak to trace wispy chlorite, moderate to strong pervasive K-spar, moderate to weak pervasive silica, weak quartz/calcite stockwork common at 70 degrees.	49098	141.00-142.50	1.50	0.155	0.40	46.0	468.0	450.0	122.0	38.0
			49099	142.50-144.00	1.50	0.065		23.0	117.0	35.0	64.0	6.0
			49100	144.00-145.50	1.50	0.010		11.0	112.0	10.0	60.0	6.0
			49101	145.50-147.00	1.50	0.005		11.0	105.0	15.0	44.0	8.0
			49102	147.00-148.50	1.50	0.010		16.0	113.0	15.0	54.0	6.0
			49103	148.50-150.00	1.50	0.010		11.0	86.0	5.0	41.0	6.0
			49104	150.00-151.00	1.00	0.010		13.0	118.0	10.0	37.0	6.0
			49105	151.00-152.00	1.00	0.040		14.0	162.0	20.0	50.0	8.0
			49106	152.00-153.00	1.00	1.020	0.80	93.0	207.0	1110.0	91.0	20.0
			49107	153.00-154.00	1.00	1.030	0.80	497.0	123.0	6275.0	246.0	86.0
			49108	154.00-155.00	1.00	0.005		10.0	68.0	25.0	65.0	18.0
			49109	155.00-156.00	1.00	0.010	0.20	12.0	98.0	15.0	133.0	56.0
		<142.20-142.36> ?? MT coarse grained 1 % arsenopyrite - wispy MINERALIZATION- 6% calcopyrite, 1% wispy arsenopyrite within 4cm. and less quartz/calcite +/- chlorite +/- epidote stockwork.										
		<142.20-142.36> VEINED & DISSEMINATED SULPHIDE qz-carb veining 65° Trace EP microveins Strong QC microveins MINERALIZATION- 6% coarse grained pyrite, 1% wispy arsenopyrite within 4cm. and less quartz/calcite +/- chlorite +/- epidote stockwork.										
		<142.36-152.00> Strong MT disseminated										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		MINERALIZATION- 4% wispy disseminated pyrite.										
		<142.36-152.00> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% wispy disseminated pyrite.										
		<152.00-155.70> Moderate MT patches 2 % arsenopyrite - patches MINERALIZATION- 2% arsenopyrite as medium grained granular patches with less fine grained dissemination, 3% coarse grained to fine grained pyrite as granular patches and veins to 2cm., commonly at 50 degrees.										
		<152.00-155.70> VEINED & DISSEMINATED SULPHIDE macroveins 50° MINERALIZATION- 2% arsenopyrite as medium grained granular patches with fine grained dissemination, 3% coarse grained to fine grained pyrite as granular patches and veins to 2cm., commonly at 50 degrees.										
156.00	170.87	Hornblende Feldspar xtalline	49110	156.00-157.00	1.00	0.005		12.0	102.0	15.0	49.0	14.0
		Fine grained, gray, crystalline, broken	49111	164.00-165.50	1.50	0.005		9.0	84.0	35.0	48.0	14.0
		qz-carb veining 70°	49112	166.74-167.00	0.26	0.010		30.0	87.0	20.0	77.0	6.0
		Frs=17/m :Vns =15/m	49113	170.00-170.87	0.87	0.005		26.0	49.0	25.0	133.0	10.0
		Weak SI pervasive										
		Trace CL pervasive										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Moderate QC microveins										
		Medium gray to green gray HFxl/BHFl transition stage with 1% light gray euhedral biotite phenos to 5mm., 25% light gray subhedral hornblende laths and needles to 2.5mm., very fine grained to aphanitic matrix. ALTERATION- moderate pervasive sericite, K-spar, local absent to moderate pervasive chlorite, weak to moderate pervasive silica, moderate quartz/calcite veining at 70 degrees, weak broken core throughout, locally gougy patches. Lower contact+strong broken core.										
		<162.60-163.70> Broken Core Moderate brittly fractured and broken HFxl, irregular fracture orientation.										
		<164.00-170.87> Moderate MT patches MINERALIZATION- 3% fine grained patchy pyrite with less disseminated possible trace sphalerite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<164.00-170.87> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% fine grained patchy pyrite with less disseminated possible trace sphalerite.										
		<166.73-169.60> Moderate CL pervasive Moderate pervasive chlorite.										
		<170.10-170.87> foliated 50° Strong foliation with HFxl at 50 degrees.										
170.87	171.03	tuff Greenish-gray, foliated, contorted Frs=20/m :Vns =6/m Strong MS pervasive Moderate CV patches Light green gray highly contorted foliated tuff (likely remnant bedding). ALTERATION- strong pervasive sericite, weak irregular calcite patches. Lower contact=foliation zone.										
171.03	172.21	rubbly fault zone Rubbly angular broken core, 2% fine grained gouge, irregular fracture orientation.	49114	170.87-172.00	1.13	0.005	0.80	18.0	57.0	205.0	68.0	16.0
172.21	185.10	volcaniclastics Medium grained, gray, crystalline, foliated foliated 30° Frs=20/m :Vns =6/m Weak CL SHEETED Strong MS pervasive Moderate PY disseminated Weak CV patches Medium green gray strong foliated and contorted crystalline lapilli tuff, possible intercalated with high level, HFxl crystalline dykes or flows. Highly irregular foliation generally between 40 to 70 degrees, average 30 degrees? Lapilli crystalline fragments within crystalline matrix to 3cm., generally subangular to subrounded. ALTERATION- strong pervasive sericite throughout, moderate to absent sheeted chlorite, weak patchy calcite throughout, moderately mineralized with pyrite and possible rare spahlerite or arsenopyrite. Weak broken core throughout interval, This unit usually does not fake a K-spar stain. MINERALIZATION- 5% fine grained euhedral disseminated and patchy disseminated pyrite, trace possible spahlerite and arsenopyrite.	49115	173.50-175.00	1.50	0.005	0.40	21.0	81.0	200.0	48.0	12.0
			49116	175.00-176.50	1.50	0.005	0.60	15.0	49.0	50.0	63.0	12.0
			49117	176.50-178.00	1.50	0.005	0.80	15.0	78.0	65.0	70.0	16.0
			49118	178.00-179.50	1.50	0.005	0.60	18.0	70.0	80.0	79.0	14.0
			49119	179.50-181.00	1.50	0.005	0.80	16.0	62.0	60.0	59.0	10.0
			49120	181.00-182.50	1.50	0.005	0.60	17.0	50.0	95.0	89.0	14.0
			49121	182.50-184.00	1.50	0.005	1.00	16.0	63.0	90.0	85.0	10.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<172.21-185.10> Intense MT disseminated MINERALIZATION- 5% fine grained euhedral disseminated and patchy disseminated pyrite, trace possible sphalerite and arsenopyrite.										
185.10	186.60	Broken Core Gouge Strong angular to rubbly broken core, 1% fine grained gouge within D.A.P. 172.21 to 185.10m. Inconsistant fracture orientation.										
186.60	193.25	volcaniclastics Medium grained, gray, crystalline, foliated foliated 35° Frs=35/m :Vns =60/m Weak CL SHEETED Strong MS pervasive Weak PY disseminated Weak CV patches D.A.P. 172.21 to 185.10m., foliation average around 35 degrees. MINERALIZATION- 2% disseminated pyrite.	49122	191.00-192.00	1.00	0.005	1.40	21.0	104.0	5.0	185.0	72.0
			49123	192.00-193.00	1.00	0.020	5.80	23.0	57.0	45.0	223.0	138.0
		<186.60-193.25> Weak MT disseminated MINERALIZATION- 2% disseminated pyrite.										
193.25	194.65	rubbly fault zone Gouge Rubbly angular broken core with gougy sections to 2cm. Fractures generally at high to moderate angles to core axis.										
194.65	206.70	volcaniclastics Medium grained, greenish-gray, crystalline, foliated foliated 15° Moderate CL pervasive Strong MS pervasive Moderate QC patches D.A.P. 172.21 to 185.10m, moderate pervasive chlorite, moderate patchy irregular quartz/calcite veins. MINERALIZATION- 3% fine grained to very fine grained disseminated pyrite, trace sphalerite.	49124	198.00-199.00	1.00	0.305	15.80	20.0	88.0	85.0	4970.0	1410.0
			49125	199.00-200.00	1.00	0.005	4.00	24.0	55.0	80.0	239.0	72.0
			49126	200.00-201.00	1.00	0.730	25.80	18.0	60.0	80.0	8584.0	2276.0
			49127	201.00-202.00	1.00	0.905		24.0	118.0	85.0		4046.0
		<194.65-206.70> Moderate MT disseminated MINERALIZATION- 3% fine grained to very fine grained disseminated pyrite, trace sphalerite.										
(eoh)												

12/04/96

Hole: CL96-57 GEOTECHNICAL DATA Page: 1

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY | DRILL HOLE LOG | CL96-58

PROJECT: Clone	Date Commenced: 21/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-58	Date Completed: 21/08/96		Geotech by:
LENGTH: 22.25	Core Diam: BQTK		

Collar Location

Latitude:	2146.63
Departure:	1933.03
Elevation:	1440.41

S U M M A R Y

0.00-0.06	CASING
0.06-14.80	mudstone *
14.80-20.65	tuff *
20.65-22.25	rubbly fault zone

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	85.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.06	CASING Casing.										
0.06	14.80	mudstone Medium grained, greenish-black, bedded, heterolithic foliated 45°:cleavage, foliation 45° Frs=15/m :Vns =2/m Weak SI patches Moderate CB patches Trace PY disseminated Weak CV microveins Black strongly foliated argillite intercalated with carbonaceous light gray lapilli sized weakly flattened fragments to 2cm. Foliation (likely remnant bedding) generally from 55 to 25 degrees, gently rolling, average 45 degrees. ALTERATION- patchy carbonate and silica alteration of lithic fragments, weak calcite veins commonly at 45 degrees, weak broken core andlimonite fracture fill throughout. MINERALIZATION- trace disseminated pyrite. Lower contact=sharp at 35 degrees.	49128	6.50-8.00	1.50	0.005	0.80	21.0	94.0	60.0	286.0	84.0
<0.06-14.80>		MINERALIZATION- trace disseminated pyrite. Lower contact= sharp at 35 degrees.										
<4.00-5.00>		bedding 55° Bedding at 60 to 50 degrees, average 55 degrees.										
<6.10-7.80>		bedding 25° Bedding at 25 degrees.										
<12.50-14.80>		bedding 45° Bedding at 45 degrees.										
14.80	20.65	tuff Fine grained, gray, foliated, crystalline foliated 35° Frs=15/m :Vns =15/m Weak CB pervasive Strong MS pervasive Weak CV stockwork Light gray strongly foliated tuff? Very fine grained HFxl. Foliation consistant or gently rolling from 35 to 40 degrees. ALTERATION- strong pervasive sericite, weak pervasive carbonate, weak broken core with	49129	15.00-16.50	1.50	0.005	0.40	27.0	55.0	15.0	147.0	22.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		limonite fracture fill throughout and weak patchy bleaching, weak calcite stockwork.										
<19.82-19.91>		Weak MT disseminated Moderate PR disseminated 3 % pyrrhotite - disseminated MINERALIZATION- 5% disseminated patchy pyrrhotite, 2% disseminated pyrite ringed by pyrrhotite, pyrite possibly altering to pyrrhotite.										
<19.82-19.91>		MINERALIZATION- 5% disseminated patchy pyrrhotite, 2% disseminated patchy pyrite ringed by pyrrhotite, pyrite possibly altering to pyrrhotite.										
20.65	22.25	rubbly fault zone	49130	19.50-21.00	1.50	4.580	1.60	78.0	254.0	975.0	202.0	24.0
		Bleached	49131	21.00-22.25	1.25	0.130	0.40	52.0	96.0	225.0	137.0	16.0
		sheeting 35°										
		Strong CL SHEETED										
		Weak QC macroveins										
		Strong bleaching and strong angular broken core. Drill rods lost in hole. Strong chlorite streaming at 35 degrees. Unknown country rock HFxl or tuff. Quartz/calcite fragments to 3cm. Strong very fine grained yellowish gouge.										
(eoh)												

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Hole: CL96-58 GEOTECHNICAL DATA Page: 1

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-59

PROJECT: Clone	Date Commenced: 21/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-59	Date Completed: 22/08/96		Geotech by:
LENGTH: 91.75	Core Diam: BQTK		

Collar Location

Latitude:	2146.63
Departure:	1933.03
Elevation:	1440.41

SUMMARY

0.00-0.37	CASING
0.37-15.63	mudstone *
15.63-22.92	tuff *
22.92-40.75	Biotite Hbl Fdsp xtalline *
40.75-42.10	Broken Core
42.10-55.80	Hornblende Feldspar xtalline *
55.80-55.90	gouge
55.90-63.64	Hornblende Feldspar xtalline **
63.64-64.51	sulphide-hematite vein *
64.51-89.30	Hornblende Feldspar xtalline **
89.30-91.75	Biotite Hbl Fdsp xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	85.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.37	CASING Casing.										
0.37	15.63	mudstone Medium grained, grayish-black, laminated foliated 45°:contact 30° Frs=19/m :Vns =8/m Weak SI patches Moderate CB patches Trace MS pervasive Trace MT pervasive Trace PY disseminated Weak QC microveins Well laminated mudstone with 30% lapilli sized subagnular to subrounded carboinaceous to siliceous fragments to 2.5cm. Some very fine grained crystalline likely crystal tuffaceous patches and layers. Well laminated gently rolling likely remnant bedding from 30 to 55 degrees, average 45 degrees. ALTERATION- weak patchy silica, moderate patchy carbonate, trace pervasive magnetism (magnetite)? weak carbonate with rare quartz veins to 1cm., trace patchy sericite of certain layers. Lower contact=sharp at 30 degrees, weak to moderate broken core with limonite fracture fill throughout. MINERALIZATION- 0.3% disseminated pyrrhotite, 0.3% disseminated pyrite.	49132	9.00-10.50	1.50	0.005		21.0	83.0	20.0	58.0	14.0
	<0.37-15.63>	?? MT disseminated ?? PR disseminated .3% pyrrhotite - disseminated MINERALIZATION- 0.3% disseminated pyrrhotite, 0.3% disseminated pyrite.										
	<3.50-5.50>	bedding 35° Bedding at 35 degrees.										
	<13.00-14.30>	bedding 55° Bedding at 55 degres, possibly fine grained upward towards collar.										
15.63	22.92	tuff Aphanitic, dark gray, crackled, crackle brecciated, foliated foliated 45° Frs=10/m :Vns =60/m Moderate SI patches Moderate CL SHEETED	49133 49134 49135	15.00-16.50 16.50-17.50 19.00-20.50	1.50 1.00 1.50	0.015 0.010 3.320	 1.20	26.0 27.0 30.0	72.0 79.0 180.0	30.0 30.0 210.0	78.0 88.0 416.0	14.0 14.0 68.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong MS pervasive Trace QC microveins Light gray to green gray lapilli tuff? Contact zone with porphyry? Very fine grained HFxl? Well foliated, locally crackle brecciated with rotated siliceous or sericitic very fine grained fragments within very fine grained matrix. Foliation often at 45 degrees, but gently rolling. ALTERATION- strong pervasive sericite, weak patchy carbonate, moderate patchy pervasive silica, weak to moderate sheeted chlorite. Lower contact=sharp, irregular.										
	<19.28-19.65>	Moderate MT disseminated Moderate PR disseminated 3 % pyrrhotite - disseminated MINERALIZATION- 3% disseminated pyrrhotite, 3% disseminated pyrite within excellent crackle brecciated texture.										
	<19.28-19.65>	VEINED & DISSEMINATED SULPHIDE Crackled, crackle brecciated MINERALIZATION- 3% disseminated pyrrhotite, 3% disseminated pyrite within excellent crackle brecciated texture.										
	<21.75-22.92>	Chlorite Streaming Bleached sheeting 45° Strong CL SHEETED Moderate to strong chlorite streaming, weak bleaching, approximately where hole CL96-58 was lost.										
22.92	40.75	Biotite Hbl Fdsp xtalline Gray, crystalline qz-carb veining 65° Frs=12/m :Vns =17/m Moderate SI pervasive Trace CL pervasive Moderate MS pervasive Moderate KS pervasive Moderate QC microveins Medium gray BHFl with 15% euhedral cream biotite +/- augite phenos to 5mm., 25% light gray to cream subhedral hornblende laths and needles to 2mm., very fine grained to aphanitic matrix. ALTERATION- moderate locally strong pervasive silica, moderate to strong pervasive sericite, K-spar moderate quartz/calcite	49136 49137 49138 49139	32.00-33.50 35.00-36.50 36.50-38.00 38.00-39.50	1.50 1.50 1.50 1.50	0.940 0.005 0.010 0.005	0.20	88.0 19.0 19.0 18.0	309.0 27.0 30.0 14.0	765.0 15.0 10.0 10.0	67.0 47.0 45.0 44.0	20.0 8.0 12.0 12.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		veining, common at 65 degrees, absent to weak pervasive chlorite, increasing towards lower contact. Lower contact=broken core, whole rock taken; different than normal BHFl.										
<25.45-25.60>		Broken Core gouge 55° Rubbly broken core, weak bleaching and limonite fracture fill. 4mm. gouge seen at 55 degrees.										
<35.60-40.75>		?? MT disseminated MINERALIZATION- 0.3% disseminated pyrite.										
<35.60-40.75>		Moderate CL pervasive Moderate pervasive chlorite. MINERALIZATION- 0.3% disseminated pyrite.										
<36.40-36.80>		Trace HE wispy Trace of wispy hematite.										
40.75	42.10	Broken Core Bleached Strong subrounded broken core with weak limonite and moderate chlorite fracture fill. No observed gouge or preferred fracture orientation.	49140	39.50-41.00	1.50	0.010		16.0	14.0	10.0	42.0	10.0
42.10	55.80	Hornblende Feldspar xtalline Fine grained, redish-green, stockwork Frs=25/m :Vns =12/m Weak SI selvages Moderate CL pervasive Trace MT macroveins Moderate HE stockwork Weak QC stockwork Weak hematite stockwork zone or S2a zone halo within fine grained HFxl with rare light gray to light green hornblende needles to 1mm., very fine grained matrix. ALTERATION- moderate stockwork hematite and veins to 5cm., often with moderate silica selvages, likely strong K-spar, moderate to strong pervasive chlorite, weak irregular quartz/calcite stockwork, local magnetite with hematite and pyrite patches. Lower contact=fault zone. Stockwork increasing towards lower contact.	49141	41.00-42.50	1.50	0.050		24.0	48.0	25.0	48.0	10.0
			49142	42.50-44.00	1.50	0.080		33.0	113.0	10.0	61.0	12.0
			49144	44.00-45.50	1.50	0.040		54.0	182.0	40.0	48.0	10.0
			49145	45.50-47.00	1.50	0.020		32.0	132.0	20.0	38.0	8.0
			49146	47.00-48.00	1.00	0.105		36.0	172.0	25.0	36.0	16.0
			49147	48.00-48.50	0.50	0.060		80.0	152.0	140.0	34.0	8.0
			49148	48.50-50.00	1.50	0.065	0.40	27.0	84.0	15.0	44.0	6.0
			49149	50.00-51.00	1.00	0.015		31.0	242.0	10.0	59.0	12.0
			49150	51.00-52.00	1.00	0.005		20.0	82.0	5.0	43.0	8.0
			49151	52.00-53.00	1.00	0.120		47.0	119.0	25.0	56.0	14.0
			49152	53.00-54.00	1.00	0.135		55.0	167.0	15.0	61.0	6.0
			49153	54.00-55.00	1.00	0.010		45.0	272.0	10.0	45.0	10.0
<42.75-49.00>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 2 to 3% wispy and stringer fine										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		grained to very fine grained pyrite.										
		<42.79-49.00> Weak MT wispy MINERALIZATION- 2 to 3% wispy and stringer fine grained to very fine grained pyrite.										
		<43.70-45.70> Chlorite Streaming sheeting 55° Strong CL SHEETED Moderate blackish green chlorite streaming at 55 degrees.										
		<48.12-48.19> MASSIVE SULPHIDE VEIN microveins 20° 1cm. vuggy pyrite vein at 20 degrees. MINERALIZATION- 20% coarse grained pyrite.										
		<48.95-51.70> Trace MT pervasive Moderate HE wispy Moderate patchy pervasive silica, moderate wispy hematite, trace pervasive magnetite.										
		<52.91-53.00> hematite vein vein 55° Strong MT vein Intense HE vein Semi-massive 7cm. hematite/magnetite vein at 55 degrees.										
		<53.00-55.80> microveins 55° Moderate SI selvages Strong HE stringer Irregular hematite veins to 8mm., commonly at 55 degrees with silica/K-spar selvages to 1cm.										
55.80	55.90	gouge gouge 60° 6cm. gouge seam, possibly at 60 degrees. Caused binding of drill rods.										
55.90	63.64	Hornblende Feldspar xtalline Fine grained, green, stockwork sheeting 50°:contact 60° Frs=5/m :Vns =50/m Trace SI pervasive Strong CL SHEETED Weak MT patches	49154	55.00-56.00	1.00	0.115		135.0	526.0	70.0	71.0	4.0
			49155	56.00-57.00	1.00	0.025	0.40	56.0	217.0	50.0	73.0	10.0
			49156	57.00-58.00	1.00	0.720		40.0	95.0	70.0	34.0	4.0
			49157	58.00-59.00	1.00	0.010		64.0	237.0	80.0	26.0	8.0
			49158	59.00-60.00	1.00	0.115		206.0	180.0	235.0	45.0	8.0
			49159	60.00-61.00	1.00	0.640	0.80	300.0	439.0	2185.0	65.0	32.0
			49160	61.00-62.00	1.00	0.095		102.0	129.0	150.0	83.0	2.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong KS pervasive	49161	62.00-63.00	1.00	0.100	0.40	283.0	362.0	375.0	220.0	10.0
		Moderate HE patches	49162	63.00-63.64	0.64	0.155	1.20	384.0	566.0	735.0	345.0	4.0
		Weak S2a zone halo within typical fine grained HFxl.										
		ALTERATION- strong pervasive and sheeted chlorite,										
		often at 55 degrees, semi-massive hematite patches										
		with sulphide near lower contact, absent near upper										
		contact, trace pervasive silica, likely strong										
		pervasive K-spar. Lower contact=sharp at 60 degrees.										
	<61.56-61.65>	MINERALIZATION- 20% arsenopyrite, 60% pyrite, 10%										
		magnetite and 10% hematite.										
	<61.56-61.65>	MASSIVE SULPHIDE VEIN										
		vein 50°										
		Massive hematite/sulphide at 50 degrees.										
		MINERALIZATION- 20% arsenopyrite, 60% pyrite, 10%										
		magnetite and 10% hematite.										
	<62.00-62.15>	?? MT stringer										
		1 % chalcopyrite - disseminated										
		MINERALIZATION- 6% irregular stringer pyrite, 1%										
		disseminated calcopyrite.										
	<62.00-62.15>	VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 6% irregular stringer pyrite, 1%										
		disseminated calcopyrite.										
63.64	64.51	sulphide-hematite vein	49163	63.64-64.51	0.87	24.320	10.20	890.0	5880.0	1770.0	283.0	56.0
		vein 55°										
		Intense MT vein										
		Intense HE vein										
		Weak SE disseminated										
		S2a zone. Massive hematite/magnetite vein ay 50 to 55										
		degrees, traces of disseminated specularite.										
		MINERALIZATION- 10% pyrite as layers within vein to										
		5cm., coarse grained and milled patches of medium										
		grained vuggy arsenopyrite, 2% ??, trace calcopyirite.										
	<63.64-64.51>	Trace MT vein										
		MINERALIZATION- 10% pyrite as layers within vein to										
		5cm., coarse grained and milled patches of medium										
		grained vuggy arsenopyrite, 2% ??, trace calcopyrite.										
64.51	89.30	Hornblende Feldspar xtalline	49164	64.51-65.00	0.49	0.190		403.0	322.0	530.0	208.0	8.0
		Fine grained, redish-green, stockwork	49165	65.00-66.00	1.00	1.620		26.0	131.0	30.0	78.0	10.0
		Frs=8/m :Vns =20/m	49166	66.00-67.00	1.00	0.020		12.0	64.0	10.0	48.0	10.0
		Trace SI pervasive	49167	67.00-68.00	1.00	0.010		18.0	199.0	10.0	67.0	22.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate CL pervasive	49168	68.00-69.00	1.00	0.005		18.0	87.0	20.0	35.0	38.0
		Strong KS pervasive	49169	69.00-69.30	0.30	0.280	1.80	153.0	306.0	355.0	35.0	76.0
		Moderate HE stockwork	49170	69.30-70.50	1.20	0.015		18.0	67.0	5.0	27.0	18.0
		Weak CV microveins	49171	70.50-72.00	1.50	0.030		20.0	65.0	30.0	23.0	40.0
		Weak QC microveins	49172	72.00-73.50	1.50	0.020		18.0	73.0	20.0	22.0	24.0
		HFxl. S2a zone halo graduating into hematite stockwork	49173	73.50-75.00	1.50	0.005		15.0	73.0	5.0	28.0	20.0
		zone, HFxl with 25% light gray subhedral hornblende	49174	79.00-80.50	1.50	0.005		18.0	99.0	15.0	60.0	26.0
		laths and needles, very fine grained to aphanitic	49175	83.00-84.50	1.50	0.130		20.0	38.0		74.0	14.0
		matrix. ALTERATION- 64.51 to 80.35m., moderate to										
		strong chlorite, absent hematite, 80.35 to 91.35m.,										
		moderate hematite stockwork, trace pervasive silica										
		near upper contact, weak irregular quartz/calcite										
		veining.										
<69.16-69.22>		?? MT coarse grained										
		MINERALIZATION- 80% coarse grained milled pyrite.										
<69.16-69.22>		semi-massive sulphides										
		Irregular semi-massive pyrite patch. MINERALIZATION-										
		80% coarse grained milled pyrite.										
<69.22-77.00>		Moderate MT disseminated										
		MINERALIZATION- 3% pyrite as irregular stringers and										
		fine grained disseminations.										
<69.22-77.00>		VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 3% pyrite as irregular stringers and										
		fine grained disseminations.										
<80.30-89.30>		Moderate hematite stockwork.										
89.30	91.75	Biotite Hbl Fdsp xtalline	49176	88.00-89.50	1.50	0.050		27.0	57.0		40.0	12.0
		Redish-green, stockwork, crystalline										
		Frs=20/m :Vns =30/m										
		Moderate CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Weak CV microveins										
		Moderate QC microveins										
		Hematite stockwork zone with typical BHFl with 8%										
		copper coloured euhedral biotite phenos to 5mm.										
		ALTERATION- moderate to strong stockwork hematite, no										
		pervasive chlorite, likely strong pervasive K-spar,										
		moderate quartz/ calcite +/- chlorite veins to 3mm.										
		Lower contact=broken core.										
(eoh)												

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-60

PROJECT: Clone	Date Commenced: 22/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-60	Date Completed: 23/08/96		Geotech by:
LENGTH: 140.21	Core Diam: BQTK		

Collar Location

Latitude:	2146.58
Departure:	1932.13
Elevation:	1440.29

S U M M A R Y

0.00-24.72	mudstone *
24.72-26.69	tuff
26.69-30.26	Biotite Hbl Fdsp xtalline
30.26-31.20	Broken Core
31.20-32.94	Biotite Hbl Fdsp xtalline
32.94-35.31	volcaniclastics
35.31-68.00	Biotite Hbl Fdsp xtalline *
68.00-71.80	VEINED & DISSEMINATED SULPHIDE ****
71.80-90.15	Biotite Hbl Fdsp xtalline *
90.15-101.50	volcaniclastics ***
101.50-106.00	Biotite Hbl Fdsp xtalline
106.00-111.20	Broken Core
111.20-140.21	Hornblende Feldspar xtalline *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	84.00	-61.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	24.72	mudstone	49177	6.00-7.50	1.50	0.020		31.0	116.0	20.0	57.0	16.0
		Medium grained, grayish-black, bedded, crystalline	49178	13.00-14.50	1.50	0.010		23.0	101.0	10.0	50.0	14.0
		contact 75°:bedding 15°	49179	23.00-24.50	1.50	0.005		22.0	108.0	35.0	60.0	20.0
		Frs=12/m :Vns =5/m										
		Weak SI patches										
		Moderate CB patches										
		Weak MS pervasive										
		Trace PY disseminated										
		Trace PR disseminated										
		Weak QC stockwork										
		1 % pyrrhotite - disseminated										
		Black mudstone intercalated with subangular to subrounded lapilli stones to 2cm., in serecitic green gray crystalline tuffaceous layers, bedding at very low angle to core axis, from 0 to 20 degrees, average 15 degrees, steeper near lower contact. ALTERATION- strong selective sericite alteration of tuffaceous layers, weak to moderate carbonate/silica alteration of lapilli size fragments, rare irregular quartz/calcite stockwork weak broken core and limonite fracture fill throughout unit. Lower contact= sharp at 75 degrees.											
	<1.00-3.80>	bedding 20°										
		Bedding at 20 degrees.										
	<5.50-9.50>	?? MT disseminated										
		?? PR disseminated										
		.3% pyrrhotite - disseminated										
		MINERALIZATION- 0.3% disseminated pyrrhotite, 0.2% disseminated pyrite.										
	<5.50-9.50>	MINERALIZATION- 0.3% disseminated pyrrhotite, 0.2% disseminated pyrite.										
	<7.00-13.00>	bedding 7°										
		Bedding at 0 to 15 degrees.										
	<18.50-21.80>	bedding 25°										
		Bedding at 25 degrees.										
	<22.00-23.50>	bedding 50°										
		Bedding at 50 degrees.										
24.72	26.69	tuff	49180	24.50-26.00	1.50	0.770		38.0	45.0	45.0	49.0	14.0
		Fine grained, gray, crackled, crackle brecciated, foliated										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		foliated 25°:brecciated 40° Frs=9/m :Vns =10/m Moderate CL SHEETED Strong MS pervasive Trace HE disseminated Trace QC stockwork Light gray to green gray, weakly laminated crystal tuff? contact zone with BHFl? moderately crackle brecciated. Weak foliation at 25 degrees. Local cream hornblende/biotite phenos subhedral to 2.5mm. cross cut by three chlorite matrix breccia dykes to 10cm. at 40 degrees. ALTERATION- strong pervasive sericite, moderately sheeted chlorite, trace quartz/calcite stockwork, trace disseminated hematite usually with calcite.										
26.69	30.26	Biotite Hbl Fdsp xtalline Gray, crystalline, auto brecciated qz-carb veining 60° Frs=10/m :Vns =25/m Moderate SI pervasive Trace CL wispy Moderate MS pervasive Moderate KS pervasive Moderate QC microveins BHFl, medium to light gray with 10% euhedral biotite +/- augite phenos to 5mm., 20% cream to light gray sub to euhedral hornblende phenos to 3mm., aphanitic matrix. ALTERATION- moderate pervasive sericite, weak to moderate pervasive silica, likely moderate pervasive K-spar, moderate quartz/calcite veins to 8mm., 25 per meter, average about 6mm. Lower contact=fault zone, trace wispy chlorite, local weak autobrecciated textures.	49181 59342 59343	26.00-27.50 27.50-28.50 28.50-29.50	1.50 1.00 1.00	0.110		45.0	21.0	55.0	40.0	14.0
30.26	31.20	Broken Core Oxidized, bleached fracturing 25°:sheeting 20° Strong CL SHEETED Strong QC macroveins Strong angular broken core with strong limonite/chlorite fracture fill, strong chlorite streaming and quartz/calcite veins to 15cm. Trace magnetite rusty gouge. Fault zone where CL96-58 was lost. Fractures common at 25 degrees, chlorite streaming at 20 degrees.	59344	29.50-30.50	1.00							

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
31.20	32.94	Biotite Hbl Fdsp xtalline	59345	30.50-31.50	1.00							
		Gray, crystalline, auto brecciated	59346	31.50-32.50	1.00							
		qz-carb veining 60°:contact 15°										
		Frs=10/m :Vns =25/m										
		Weak SI pervasive										
		Weak CL wispy										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Moderate QC microveins										
		D.A.P. 26.69 to 30.26m., no hematite, weak pervasive silica. Lower contact=sharp at 15 degrees.										
32.94	35.31	volcaniclastics	49182	32.50-34.00	1.50	5.430	2.00	12.0	112.0	155.0	191.0	70.0
		Dark gray, heterolithic	49183	34.00-35.31	1.31	4.120	2.40	14.0	56.0	535.0	847.0	464.0
		contact 55°										
		Frs=7/m :Vns =6/m										
		Moderate SI patches										
		Strong CL interstitial										
		Moderate MS patches										
		Weak QC microveins										
		Possible diatrenaceous breccia heterolithic matrix supported with 60% fragments, 75% very fine grained light gray silicified tuffaceous, 25% light green sericitic crystalline fragments, all subangular to subrounded to 10cm. Chloritic, sulphide rich matrix, weak quartz/calcite veins/tension fractures. Lower contact=sharp at 55 degrees.										
35.31	68.00	Biotite Hbl Fdsp xtalline	59347	35.31-36.00	0.69							
		Gray, crystalline	59348	36.00-37.00	1.00							
		qz-carb veining 60°	59349	37.00-38.00	1.00							
		Frs=12/m :Vns =25/m	59350	38.00-39.00	1.00							
		Moderate SI pervasive	59351	39.00-40.00	1.00							
		Weak CL wispy	59352	40.00-41.00	1.00							
		Moderate MS pervasive	49184	41.00-42.50	1.50	0.250		56.0	86.0	500.0	56.0	18.0
		Moderate KS pervasive	49185	43.76-44.71	0.95	2.090		70.0	173.0	330.0	97.0	18.0
		Moderate QC microveins	49186	58.00-59.50	1.50	0.070		14.0	14.0	90.0	53.0	22.0
		Medium gray BHFl. D.A.P. 26.69 to 30.26m. Local strong	49187	61.00-62.50	1.50	0.125		11.0	77.0	10.0	63.0	14.0
		sheeted chlorite, with broken core, probable shear	49188	62.50-64.00	1.50	0.055		19.0	107.0	15.0	81.0	14.0
		zones. Rare autobrecciated textures.	49189	64.00-65.50	1.50	0.155		23.0	4.0	55.0	55.0	12.0
<44.30-45.90>		Broken Core										
		Oxidized										
		Strong CL SHEETED										
		Moderate broken core with moderate limonite fracture fill, moderate irregular chloritic sheeting, probable shear zone.										

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<49.50-59.00>	Weak to angular to subangular broken core, weak limonite fracture fill.										
<63.55-63.75>	Trace MT disseminated MINERALIZATION- 2% calcopyrite, 1% dissmeinated pyrite weakly foliated at 15 degrees to core axis.										
<63.55-63.75>	VEINED & DISSEMINATED SULPHIDE foliated 15° MINERALIZATION- 2% calcopyrite, 1% disseminated pyrite, weakly foliated at 15 degrees to core axis.										
<68.00-71.80>	sheeting 10°	49190	65.50-67.00	1.50	0.690		46.0	39.0	130.0	104.0	16.0
	Moderate SI pervasive	49191	67.00-68.00	1.00	0.290		39.0	22.0	80.0	88.0	16.0
	Intense CL SHEETED	49192	68.00-69.15	1.15	0.025		12.0	23.0	25.0	72.0	16.0
	Moderate MS pervasive	49193	69.15-69.75	0.60	4.120	1.60	890.0	576.0	6950.0	124.0	18.0
	Moderate KS pervasive	49194	69.75-70.71	0.96	0.040		18.0	14.0	75.0	72.0	20.0
	Trace HE wispy	49195	70.71-71.22	0.51	2.790	1.00	165.0	404.0	985.0	93.0	10.0
	Moderate PY patches										
	Strong QC microveins S1 zone? S2a zone projection, sulphide rich chlorite/calcite/quartz shear at shallow angle to core axis to 2.5cm. true width within BHF1. D.A.P. 26.69 to 30.26m. Does not have characteristic strong pervasive chlorite alteration, however pyrite>arsenopyrite> calcopyrite assemblage.										
<68.36-68.50>	Trace MT medium grained MINERALIZATION- 10% medium grained pyrite, 0.4% arsenopyrite.										
<68.36-68.50>	VEINED & DISSEMINATED SULPHIDE sheeting 10° Frs=6/m :Vns =2/m Strong CL SHEETED Chloritic irregular shear zone? at 10 degrees. MINERALIZATION- 10% medium grained pyrite, 0.4% arsenopyrite.										
<69.15-69.75>	Intense MT patches .4% chalcopyrite - patches 10% arsenopyrite - patches MINERALIZATION- 10% arsenopyrite, 5% pyrite, 0.4% calcopyrite as medium grained to fine grained granular patches.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<69.15-69.75>		VEINED & DISSEMINATED SULPHIDE sheeting 10° Strong CL SHEETED Weak HE wispy 25cm. true width chloritic shear zone at 10 degrees, trace wispy hematite. MINERALIZATION- 10% arsenopyrite, 5% pyrite, 0.4% calcopyrite as medium grained to fine grained granular patches.										
<70.71-70.96>		Intense MT patches 2 % chalcopyrite - patches 4 % arsenopyrite - patches MINERALIZATION- 4% arsenopyrite, 5% pyrite, 2% calcopyrite as medium grained to fine grained granular patches.										
<70.71-70.96>		VEINED & DISSEMINATED SULPHIDE Strong CL SHEETED Weak HE wispy Chloritic shear zone at 10 degrees, weak wispy hematite with calcite,. MINERALIZATION- 4% arsenopyrite, 5% pyrite, 2% calcopyrite as medium grained to fine grained granular patches.										
<70.96-71.80>		Weak MT disseminated 1 % chalcopyrite - disseminated 1 % arsenopyrite - disseminated MINERALIZATION- 1% disseminated calcopyrite, 1% disseminated arsenopyrite, 2% disseminated pyrite.										
<70.96-71.80>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 1% disseminated calcopyrite, 1% disseminated arsenopyrite, 2% disseminated pyrite.										
71.80	90.15	Biotite Hbl Fdsp xtalline Gray, crystalline qz-carb veining 35° Frs=12/m :Vns =25/m Moderate SI pervasive Trace CL wispy Moderate MS pervasive Moderate KS pervasive Moderate QC microveins Medium gray BHFl D.A.P. 26.69 to 30.26m., trace wispy chlorite increasing towards lower contact, weak broken core with limonite fracture fill near upper contact, quartz/calcite veins at 35 degrees. Lower	49196 49197 49198 49199 49200	71.22-73.50 78.00-79.50 86.50-88.00 88.00-89.50 89.50-90.00	2.28 1.50 1.50 1.50 0.50	0.655 0.005 0.060 0.180 0.270		65.0 13.0 19.0 20.0 67.0	127.0 20.0 116.0 340.0 207.0	550.0 25.0 45.0 50.0 230.0	103.0 72.0 69.0 71.0 80.0	16.0 20.0 26.0 24.0 34.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		contact=indistinct.										
<77.30-81.40>		Broken Core										
		Oxidized										
		fracturing 35°										
		Weak to moderate broken core with weak bleaching and										
		weak limonite fracture fill. Local very fine grained										
		gouge. Likely weak fault splays fractures commonly at										
		35 degrees.										
<87.80-88.80>		Weak MT disseminated										
		MINERALIZATION- 2% disseminated pyrite.										
<87.80-88.80>		VEINED & DISSEMINATED SULPHIDE										
		Weak CL wispy										
		Trace HE disseminated										
		Weak to moderate wispy chlorite, trace wispy hematite										
		generally with calcite, wisps generally at low angle										
		to core axis. MINERALIZATION- 2% disseminated pyrite.										
90.15	101.50	volcaniclastics	49201	90.00-91.00	1.00	0.175		33.0	343.0	45.0	87.0	16.0
		Medium grained, green, mottled, homolithic	49202	91.00-91.50	0.50	0.060		47.0	131.0	140.0	84.0	26.0
		Frs=8/m :Vns =18/m	49203	91.50-92.00	0.50	1.770		154.0	510.0	755.0	81.0	16.0
		Strong CL pervasive	49204	92.00-93.00	1.00	0.025		41.0	148.0	75.0	102.0	26.0
		Weak MS pervasive	49205	93.00-94.00	1.00	0.010		41.0	112.0	75.0	113.0	30.0
		Strong KS pervasive	49206	94.00-95.00	1.00	5.080		43.0	180.0	75.0	120.0	26.0
		Weak PY disseminated	49207	95.00-96.50	1.50	0.030		33.0	152.0	60.0	63.0	26.0
		Moderate CV patches	49208	96.50-98.00	1.50	0.030		35.0	131.0	75.0	80.0	24.0
		Probable fragmental with indistinct fragment outlines	49209	98.00-99.50	1.50	0.045		34.0	176.0	35.0	87.0	26.0
		with taxitic, light gray rectangular oikiolitic sub to	49210	99.50-101.00	1.50	0.175	0.40	43.0	212.0	210.0	100.0	26.0
		anhedral mafic phenocrysts to 15 degrees, very fine										
		grained chloritic matrix. No observed tuffaceous										
		fragments. ALTERATION- moderate to strong pervasive										
		chlorite, likely strong pervasive K-spar. Host to weak										
		sulphide mineralization, moderate irregular										
		quartz/calcite patches. Lower contact=indistinct.										
<91.50-91.75>		Weak MT patches										
		1 % chalcopyrite - disseminated										
		5 % arsenopyrite - patches										
		MINERALIZATION- 5% medium grained granular patchy										
		arsenopyrite, 2% patchy medium grained pyrite, 1%										
		disseminated calcopyrite.										
<91.50-91.75>		VEINED & DISSEMINATED SULPHIDE										
		foliated 45°										
		Strong SI pervasive										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong CL SHEETED Trace HE disseminated Strong chlorite sheeting at 45 degrees, weak strong pervasive silica, trace wispy hematite. MINERALIZATION- 5% medium grained granular patches arsenopyrite, 2% patchy medium grained pyrite, 1% disseminated calcopyrite.										
<94.36-94.41>		Moderate MT disseminated MINERALIZATION- 3% disseminated pyrite.										
<94.36-94.41>		Hematite chlorite calcite vein vein 55° Strong HE vein Moderate PY disseminated 4cm. hematite, chlorite, calcite, pyrite vein at 55 degrees. MINERALIZATION- 3% disseminated pyrite.										
<94.50-101.50>		Strong MT disseminated .2% chalcopyrite - vein MINERALIZATION- 4% medium grained disseminated pyrite with less granular patches, trace calcopyrite in irregular calcite veins.										
<94.50-101.50>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% medium grained disseminated pyrite with less granular patches, trace calcopyrite in irregular calcite veins.										
101.50	106.00	Biotite Hbl Fdsp xtalline Gray, crystalline Frs=12/m :Vns =18/m Weak SI pervasive Weak CL pervasive Moderate MS pervasive Moderate KS pervasive Moderate QC microveins Medium gray to green BHFl, D.A.P. 26.69 to 30.26m., 4% cream biotite phenos, weak quartz/calcite stockwork, weak pervasive silica, weak pervasive chlorite.										
106.00	111.20	Broken Core Fine grained, grayish-green, bleached, crystalline Frs=100/m :Vns =6/m Strong CL pervasive Moderate MS pervasive Strong KS pervasive										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong CV microveins										
		Contact between BHF1 and HFx1 overprinted by strong										
		subrounded to subangular broken core, trace very fine										
		grained fracture fill, weak limonite fracture fill and										
		weak bleaching. Inconsistant fracture orientation,										
		weak fault zone at contact?										
111.20	140.21	Hornblende Feldspar xtalline	49211	112.00-113.50	1.50	0.010		16.0	49.0	20.0	36.0	18.0
		Fine grained, redish-green, stockwork, crystalline	49212	113.50-115.00	1.50	0.005		12.0	47.0	15.0	33.0	16.0
		qz-carb veining 45°	49213	115.00-116.00	1.00	0.005		14.0	65.0	25.0	28.0	4.0
		Trace SI patches	49214	116.00-117.00	1.00	0.165		134.0	263.0	135.0	36.0	
		Moderate CL pervasive	49215	117.00-118.00	1.00	0.335		199.0	340.0	180.0	55.0	
		Weak MS patches	49216	118.00-119.00	1.00	0.510		108.0	224.0	110.0	61.0	
		Trace MT stringer	49217	119.00-120.00	1.00	0.275		191.0	273.0	165.0	53.0	6.0
		Strong KS pervasive	49218	120.00-121.00	1.00	0.005		81.0	193.0	50.0	45.0	10.0
		Moderate HE stockwork	49219	121.00-122.00	1.00	0.035		33.0	130.0	15.0	30.0	
		Weak QC microveins	49220	122.00-123.00	1.00	0.190		37.0	142.0	25.0	43.0	8.0
		Moderate hematite stockwork zone and probable host to	49221	123.00-124.00	1.00	0.075		71.0	151.0	50.0	52.0	6.0
		weak S2a zone within green fine grained HFx1 with 25%	49222	124.00-125.00	1.00	0.465		43.0	152.0	35.0	42.0	6.0
		light green to light gray subhedral hornblende needles	49223	125.00-126.00	1.00	0.075		57.0	71.0	15.0	68.0	
		to 2mm., very fine grained to aphanitic matrix.	49224	126.00-127.50	1.50	0.015		35.0	58.0	10.0	54.0	
		ALTERATION- moderate to strong pervasive chlorite,	49225	127.50-129.00	1.50	0.065		30.0	83.0		41.0	
		decreasing slightly to lower contact, moderate	49226	132.00-133.50	1.50	0.110		91.0	77.0	50.0	118.0	
		hematite stockwork and veins to 5mm., generally with	49227	138.00-139.50	1.50	0.005		7.0	20.0		43.0	
		magnetite, likely strong pervasive K-spar, weak to										
		moderate quartz/calcite/chlorite veins to 4mm.,										
		commonly at 45 degrees.										
	<111.20-114.00>	Weak MT disseminated										
		MINERALIZATION- 2% wispy disseminated fine grained										
		pyrite.										
	<111.20-114.00>	VEINED & DISSEMINATED SULPHIDE										
		Weak SI pervasive										
		Moderate CL pervasive										
		Moderate pervasive chlorite, weak pervasive silica,										
		absent hematite. MINERALIZATION- 2% wispy disseminated										
		fine grained pyrite.										
	<114.00-116.65>	Weak hematite stockwork zone.										
	<116.65-121.00>	hematite vein										
		Bleached										
		Weak SI pervasive										
		Weak CL pervasive										
		Weak MT microveins										
		Moderate HE microveins										

FROM TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	Weak S2a zone with hematite/magnetite stringers to 1cm., commonly at 55 degrees, weak pervasive silica, weak bleaching and calcite leaching, 2 veins per meter, trace malachite fracture fill.										
<125.40-126.50>	Chlorite Streaming Broken, oxidized sheeting 50° Strong CL SHEETED Strong chlorite streaming at 50 degrees, overprinted by weak to moderate broken core and strong limonite fracture fill.										
<138.85-139.50>	Weak SI pervasive Weak CL pervasive Moderate MS pervasive Strong HE stockwork Strong hematite stockwork, weak pervasive silica, moderate pervasive sericite, weak pervasive chlorite.										
(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-61

PROJECT: Clone	Date Commenced: 23/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-61	Date Completed: 24/08/96		Geotech by:
LENGTH: 113.39	Core Diam: BQTK		

Collar Location

Latitude:	2201.80
Departure:	2044.78
Elevation:	1412.40

S U M M A R Y

0.00-4.27	CASING
4.27-32.46	Debris flow
32.46-39.40	volcaniclastics
39.40-42.70	Broken Core *
42.70-62.50	Biotite Hbl Fdsp xtalline *
62.50-70.00	Hornblende Feldspar xtalline *
70.00-76.30	VEINED & DISSEMINATED SULPHIDE ****
76.30-81.50	Hornblende Feldspar xtalline *
81.50-82.25	rubbly fault zone
82.25-111.09	Hornblende Feldspar xtalline *****
111.09-113.39	rubbly fault zone

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	4.27	CASING Casing, drilled through glacial ice.										
4.27	32.46	Debris flow Dark red, heterolithic Trace SI patches Moderate CL pervasive Weak MS patches Intense HE SHEETED Weak CV stockwork Hematitic to chloritic debris flow or megabreccia, maroon to burgundy intercalated wea medium to dark green layers and patchy green fragments. Heterolithic matrix supported with 60% subrounded fragments 60% appear lithic, 40% intrusive fragments of various intermediate types from coarse grained to very fine grained. Local weak foliation and/or alignment of fragments. ALTERATION- intense pervasive and sheeted hematite, weak to moderate pervasive chlorite, trace patchy silica of selected fragments, trace irregular calcite stockwork.	49229 49230 49231 49233	12.00-13.50 19.00-20.50 23.00-24.50 29.00-30.50	1.50 1.50 1.50 1.50	0.005 0.005 0.005 0.025		23.0 23.0 20.0 18.0	57.0 37.0 48.0 93.0		100.0 55.0 53.0 104.0	10.0 6.0
		<8.50-9.50> foliated 50° Weak foliation at 50 degrees.										
		<14.70-15.25> Broken Core fracturing 35° Moderate broken core with trace fine grained gouge, moderate limonite fracture fill. Fracture angles commonly at 35 degrees.										
		<17.35-18.40>Weak broken core, irregular fracture orientation, weak patchy hematite, moderate to strong pervasive chlorite, strong limonite fracture fill and moderate bleaching.										
		<29.40-30.20> foliated 35° Weak foliation at 35 degrees.										
		<31.45-31.52>Weak malachite/azurite/chrysocola fracture fill; euehedral crystals.										
		<31.78-32.15> QUARTZ-CALCITE VEINS Moderate EP macroveins Irregular quartz/calcite/epidote vein.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
32.46	39.40	volcaniclastics	49234	33.00-34.50	1.50	0.005	0.80	18.0	229.0		94.0	2.0
		Grayish-red, mottled, crystalline	49235	37.00-38.50	1.50	0.005		20.0	21.0		37.0	
		qz-carb veining 60°										
		Frs=8/m :Vns =10/m										
		Weak CL pervasive										
		Moderate KS pervasive										
		Moderate HE pervasive										
		Weak QC microveins										
		Medium gray red HFxl? Volcaniclastic? 3% black										
		euhedral lathy to anhedral fragments? phenos rare										
		euhedral copper soloured biotite phenos, moderately										
		mottled, locally moderately foliated. ALTERATION-										
		moderate to strong wispy pervasive hematite, weak										
		pervasive chlorite, probably moderate pervasive										
		K-spar, weak epidote as irregular wisps and patches,										
		weak calcite +/- quartz stockwork/tension fractures,										
		commonly at 60 degrees. Lower contact=fault zone.										
39.40	42.70	Broken Core	49236	40.00-42.00	2.00	0.005		17.0	198.0	25.0	55.0	
		Aphanitic, oxidized, bleached										
		sheeting 50°										
		Weak SI patches										
		Strong CL stockwork										
		Moderate HE pervasive										
		Strong to moderate subangular broken core with strong										
		limonite fracture fill, moderate bleaching and calcite										
		leaching within HFxl. Strong chlorite streaming at 30										
		to 50 degrees, usually 50 degrees. Strong to absent										
		pervasive hematite, local moderate patchy silica.										
		MINERALIZATION- 1% coarse grained disseminated pyrite.										
	<39.40-42.70>	Trace MT disseminated										
		MINERALIZATION- 1% coarse grained disseminated pyrite.										
42.70	62.50	Biotite Hbl Fdsp xtalline	49237	45.72-46.91	1.19	4.010	1.20	105.0	52.0	100.0	138.0	50.0
		Greenish-red, crystalline, stockwork	49238	52.00-53.50	1.50	0.005		14.0	53.0		21.0	
		qz-carb veining 70°	49239	58.00-59.00	1.00	0.005		18.0	105.0		57.0	
		Frs=10/m :Vns =35/m	49240	59.00-59.82	0.82	0.115	0.60	133.0	373.0		88.0	8.0
		Moderate CL pervasive	49241	59.82-60.55	0.73	8.880	0.40	1230.0	50.0	695.0	169.0	12.0
		Trace MT microveins	49242	60.55-62.00	1.45	0.070		33.0	15.0	5.0	77.0	
		Strong KS pervasive										
		Strong HE pervasive										
		Moderate QC microveins										
		BHFl within hematite stockwork zone with 15% copper										
		coloured euhedral platy biotite phenos to 5mm., 25%										
		light gray to light green subhedral hornblende needles										
		to 1.5mm., very fine grained to aphanitic matrix.										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		ALTERATION- moderate to strong hematite stockwork and pervasive with less microfracture controlled, weak local patchy, weak pervasve chlorite, likely strong pervasive K-spar. Lower contact=sharp, irregular.										
	<45.72-46.68>	Chlorite Streaming Green, broken, bleached Strong CL SHEETED Strong irregular chlorite streaming overprinted by moderate broken core, weak limonite fracture fill.										
	<46.68-46.76>	hematite vein vein 30° Weak MT vein Strong HE vein H zone? 2cm. hematite/magnetite vein at 30 degrees.										
	<60.00-60.26>	MINERALIZATION- trace calcopyrite.										
	<60.00-60.26>	massive hematite Weak MT pervasive Intense HE massive H zone? S2a? 25cm. massive hematite patch with weak patch magnetite. MINERALIZATION- trace calcopyrite.										
	<60.47-60.53>	hematite vein vein 55° Intense HE vein 5cm. massive hematite vein, irregular at 55 degrees.										
62.50	70.00	Hornblende Feldspar xtalline Fine grained, dark green, crystalline Frs=5/m :Vns =10/m Strong CL pervasive Strong KS pervasive Trace HE wispy Moderate QC microveins S2a zone halo? within medium to dark green HFxl with 25% light green to light gray subhedral hornblende needles to 2mm., very fine grained to aphanitic matrix. ALTERATION- strong pervasive chlorite, K-spar, trace to absent wispy hematite, weak patchy pervasive silica with quartz/calcite veins to 3cm., generally 8mm., 9 per meter. MINERALIZATION- 3% fine grained to coarse grained disseminated pyrite.	49243	62.00-63.50	1.50	0.005		12.0	9.0	20.0	32.0	
			49244	63.50-65.00	1.50	0.005	0.20	12.0	87.0	30.0	45.0	12.0
			49245	65.00-66.50	1.50	0.290		17.0	42.0		119.0	4.0
			49246	66.50-67.50	1.00	0.390	0.40	36.0	315.0	35.0	491.0	8.0
			49247	67.50-69.00	1.50	0.200		18.0	79.0	25.0	40.0	4.0
			49248	69.00-70.00	1.00	0.005		12.0	82.0	25.0	34.0	4.0
	<62.50-70.00>	Moderate MT disseminated										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		MINERALIZATION- 3% fine grained to coarse grained disseminated pyrite.										
<66.78-66.82>		sulphide-hematite vein vein 70° 2cm. pyrite/hematite/magnetite vein at 70 degrees.										
70.00	76.30	VEINED & DISSEMINATED SULPHIDE Fine grained, grayish-green, crystalline vein 50° Frs=4/m :Vns =30/m Moderate SI pervasive Strong CL SHEETED Trace MT pervasive Weak HE disseminated Moderate QC stockwork S2a zone? medium green gray HFxl with typical hornblendes and aphanitic matrix. ALTERATION- moderate to strong patchy pervasive silica, moderately sheeted chlorite, trace to weak wispy hematite generally with calcite, weak patchy magnetite, moderate pyrite/calcopyrite mineralization. Chlorite/calcite veins at 50 degrees.	49249	70.00-71.00	1.00	0.025	0.40	26.0	115.0	75.0	53.0	12.0
			49250	71.00-72.00	1.00	0.075	1.60	29.0	291.0	155.0	128.0	4.0
			49251	72.00-73.00	1.00	0.585	8.40	169.0	2315.0	450.0	158.0	10.0
			49252	73.00-74.00	1.00	2.290	10.40	133.0	2616.0	360.0	882.0	200.0
			49253	74.00-75.00	1.00	0.275	2.40	74.0	547.0	695.0	155.0	16.0
			49254	75.00-76.00	1.00	0.670	3.60	74.0	1217.0	305.0	186.0	12.0
<70.10-70.25>		MASSIVE SULPHIDE VEIN vein 25° 1cm. pyrite/calcite vein at 20 degrees.										
<70.25-72.20>		?? MT disseminated MINERALIZATION- 6% fine grained disseminated and stringer pyrite.										
<70.25-72.20>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 6% fine grained disseminated and stringer pyrite.										
<72.20-72.45>		?? MT disseminated 3 % chalcopyrite - wispy MINERALIZATION- 6% fine grained disseminated pyrite, 3% wispy calcopyrite.										
<72.20-72.45>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 6% fine grained disseminated pyrite, 3% wispy calcopyrite.										
<72.45-73.30>		?? MT disseminated MINERALIZATION- 7% fine grained disseminated pyrite.										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<72.45-73.30> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 7% fine grained disseminated pyrite.										
		<73.30-73.55> ?? MT disseminated 1 % chalcopyrite - disseminated MINERALIZATION- 7% disseminated pyrite, 1.5% disseminated calcopyrite.										
		<73.30-73.55> Chlorite Streaming sheeting 40° Intense chlorite black green streaming at 40 degees. MINERALIZATION- 7% disseminated pyrite, 1.5% disseminated calcopyrite.										
		<73.55-76.30> VEINED & DISSEMINATED SULPHIDE stringer 40° Moderate SI selvages Moderate CL stringer Moderate KS selvages 5% wispy pyrite, generally in stringers with chlorite at 40 degrees, moderate K-spar/silica selvages.										
76.30	81.50	Hornblende Feldspar xtalline	49255	76.00-77.00	1.00	0.020	0.80	95.0	261.0	120.0	134.0	14.0
		Fine grained, gray, massive, crystalline	49256	77.00-78.50	1.50	0.005	0.60	27.0	101.0	115.0	109.0	8.0
		qz-carb veining 60°	49257	78.50-80.00	1.50	0.005	0.60	46.0	123.0	210.0	116.0	20.0
		Frs=10/m :Vns =15/m	49258	80.00-81.50	1.50	0.005	0.60	24.0	67.0	185.0	86.0	14.0
		Weak SI pervasive										
		Weak CL wispy										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Weak QC microveins										
		Medium gray fine grained HFxl with 25% light gray to green subhedral hornblende needles to 1.5mm., very fine grained matrix. ALTERATION- weak wispy chlorite, moderate pervasive sericite, K-spar, weak pervasive silica, weak irregular quartz/calcite veins, often at 60 degrees. MINERALIZATION- 3% fine grained stringer pyrite with good K-spar, selvages.										
		<76.30-81.50> Moderate MT stringer MINERALIZATION- 3% fine grained stringer pyrite with good K-spar, selvages.										
81.50	82.25	rubbly fault zone Gouge sheeting 60°										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate SI SHEETED										
		Strong gougy broken core with 2 to 3% fine grained gouge and as seams to 7mm., quartz sheeting at 60 degrees.										
82.25	111.09	Hornblende Feldspar xtalline	49259	84.00-85.50	1.50	0.005	0.40	20.0	125.0	30.0	94.0	12.0
		Fine grained, greenish-gray, mottled, crystalline	49260	85.50-86.50	1.00	0.005	0.40	17.0	126.0	10.0	85.0	14.0
		qz-carb veining 60°	49261	86.50-87.06	0.56	0.305	0.80	165.0	180.0	2290.0	66.0	12.0
		Frs=8/m :Vns =20/m	49262	87.06-88.50	1.44	0.020	0.20	34.0	149.0	205.0	92.0	16.0
		Weak SI pervasive	49263	88.50-90.00	1.50	0.005		56.0	121.0	330.0	99.0	20.0
		Weak CL pervasive	49264	90.00-91.50	1.50	0.020		47.0	147.0	205.0	144.0	18.0
		Moderate KS pervasive	49265	91.50-93.00	1.50	0.040		42.0	176.0	55.0	80.0	10.0
		Moderate QC microveins	49266	93.00-94.50	1.50	1.510	0.60	265.0	325.0	2555.0	225.0	26.0
		D.A.P. 76.3 to 81.5m., weak pervasive chlorite, local	49267	94.50-96.00	1.50	0.010		38.0	191.0	50.0	86.0	24.0
		arsenopyrite patches, locally mottled pseudo	49268	96.00-97.50	1.50	0.025		40.0	130.0	65.0	72.0	18.0
		oikiolitic.	49269	102.00-103.50	1.50	0.005		27.0	79.0	35.0	82.0	20.0
<82.25-86.88>		Moderate MT disseminated										
		MINERALIZATION- 3% wispy disseminated pyrite.										
<82.25-86.88>		MINERALIZATION- 3% wispy disseminated pyrite.										
<84.95-85.35>		Chlorite Streaming										
		sheeting 60°										
		Intense CL SHEETED										
		Intense chlorite streaming at 60 degrees.										
<86.75-86.79>		gouge										
		gouge 60°										
		3cm. gouge seam at 60 degrees.										
<86.88-87.05>		.5% chalcopyrite - disseminated										
		7 % arsenopyrite - patches										
		MINERALIZATION- 7% medium grained arsenopyrite patches, 0.5% disseminated calcopyrite.										
<86.88-87.05>		VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 7% medium grined arsenopyrite patches, 0.5% dissenminated calcopyrite.										
<91.60-93.35>		Strong MT wispy										
		MINERALIZATION- 4% wispy pyrite, generally with chlorite.										
<91.60-93.35>		VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 4% wispy pyrite, generally with chlorite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<91.80-100.50>Moderate mottled texture. Possible very subtle fragmental?										
		<93.35-93.45>MINERALIZATION- 30% pyrite, 40% arsenopyrite.										
		<93.35-93.45> MASSIVE SULPHIDE VEIN vein 80° 2cm. pyrite/arsenopyrite vein at 80 degrees with calcite and chlorite. MINERALIZATION- 30% pyrite, 40% arsenopyrite.										
		<93.45-102.50> Moderate MT disseminated MINERALIZATION- 3% fine grained to medium grained disseminated pyrite.										
		<93.45-102.50> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% fine grained to medium grained disseminated pyrite.										
		<103.80-106.70> Broken Core Gouge Weak broken core with weak 1mm. gougy slips. Likely small insignificant slip ??										
		<106.55-111.09>Strong angular broken core with several rubbly gougy sections, irregular fracture orientation. Splays of fine grained fault at E.O.H.										
111.09	113.39	rubbly fault zone Gouge fracturing 15° Rubbled broken core with fine grained gouge, fractures generally at low angle to core axis, possibly 15 degrees, 1 meter of lost core (gouge) at E.O.H. Strong fault zone.	49270	111.00-112.00	1.00	0.060	0.40	42.0	269.0	280.0	288.0	30.0
		<111.45-112.00> VEINED & DISSEMINATED SULPHIDE 4% pyrite as medium grained euhedral granular patches and disseminations.										
		(eoh)										

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-62

PROJECT: Clone	Date Commenced: 24/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-62	Date Completed: 25/08/96		Geotech by:
LENGTH: 188.37	Core Diam: BQTK		

Collar Location

Latitude:	2201.82
Departure:	2045.26
Elevation:	1412.10

S U M M A R Y

0.00-4.27	CASING
4.27-16.61	Debris flow
16.61-25.85	Hornblende Feldspar xtalline
25.85-31.00	Broken Core
31.00-40.10	volcaniclastics
40.10-55.50	volcaniclastics *
55.50-64.50	Biotite Hbl Fdsp xtalline
64.50-72.60	Hornblende Feldspar xtalline
72.60-81.30	rubbly fault zone
81.30-102.00	Biotite Hbl Fdsp xtalline ****
102.00-106.50	rubbly fault zone
106.50-131.80	Biotite Hbl Fdsp xtalline ****
131.80-138.23	rubbly fault zone *
138.23-146.25	Biotite Hbl Fdsp xtalline *
146.25-153.92	Broken Core *
153.92-159.65	Hornblende Feldspar xtalline
159.65-176.13	volcaniclastics ***
176.13-188.37	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-60.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	4.27	CASING Casing.										
4.27	16.61	Debris flow Red, heterolithic, foliated foliated 40° Frs=12/m :Vns =4/m Trace SI patches Strong CL interstitial Strong HE patches Trace CV stockwork Dark green red to medium dark red, hematitic heterolithic debris flow or megabreccia commonly foliated at 40 degrees. 40% fragments, 30% crystalline, 70% lithology of fine grained intrusive, fine grained hematitic or chloritic matrix. ALTERATION- string hematite as patchy fragments and moderate matrix, strong black green chlorite matrix, trace calcite stockwork. Lower contact=rusty broken core.	49273	11.00-12.50	1.50	0.010	0.20	17.0	30.0	10.0	58.0	22.0
<6.30-10.80>		foliated 40° Strong foliation at 40 degrees.										
<16.42-16.61>		rubbly fault zone Oxidized, bleached gouge 30° Moderate angular broken core with rusty gougy slips to 3mm. at 30 degrees, moderate bleaching.										
16.61	25.85	Hornblende Feldspar xtalline Fine grained, greenish-red, mottled, stockwork qz-carb veining 40° Frs=15/m :Vns =40/m Moderate CL pervasive Trace MS patches Strong KS pervasive Weak EP patches Strong HE stockwork Moderate QC microveins Moderate to strong hematite stockwork zone within HFx1? weakly to moderately mottled; no black laths like observed in other holes near megabreccia contact. Milled lite green to light gray subhedral hornblende phenos to 5mm., commonly cryptic fine grained to very fine grained matrix. ALTERATION- strong stockwork	49274 49275	17.00-18.50 24.00-25.50	1.50 1.50	0.005 0.005	0.40	19.0 30.0	188.0 60.0		70.0 64.0	18.0 16.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		hematite with less pervasive and microfracture controlled, trace to weak patchy epidote, moderate to weak pervasive chlorite, moderate quartz/calcite stockwork commonly at 40 degrees to 1cm., 1 per meter commonly with epidote. Lower contact=fault zone.										
<24.75-24.90>		Semi-massive hematite Strong CL pervasive Intense HE pervasive Intense pervasive hematite with less chlorite; does not look like H zone, however.										
25.85	31.00	Broken Core Fine grained, greenish-red, oxidized gouge 10° :Vns =15/m Weak CL pervasive Strong HE stockwork Weak QC microveins Several fault planes at shallow angles to core axis within strongly hematicized HFxl? HFBx? Strong local oxidized patxhes and bleaching and gougy seams to 3mm. at 0 to 15 degrees, average 10 degrees.										
31.00	40.10	volcaniclastics Redish-green, mottled, crystalline :contact 70° Frs=18/m :Vns =45/m Weak SI patches Moderate CL pervasive Weak MS patches Strong KS pervasive Weak EP patches Strong HE stockwork Weak QC stockwork Hematite stockwork with heterolithic weak fragmental with 20% fragments, 30% lithic, 70% crystalline within apparent crystalline matrix. May be intrusive breccia. ALTERATION- strong stockwork hematite with less pervasive and microfracture controlled, weak patchy silica, weak patchy epidote, weak patchy sericite, weak irregular calcite +/- quartz stockwork. Lower contact=strong foliation at 70 degrees.	49276 49277	31.00-32.50 37.00-38.50	1.50 1.50	0.070 0.005	 0.40	22.0 17.0	46.0 110.0	 5.0	70.0 52.0	18.0 14.0
<33.65-36.50>		Broken Core Oxidized fracturing 10°										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Weak to moderate broken core with weak to moderate bleaching and limonite fracture fill. Fractures commonly at 10 degrees.										
40.10	55.50	volcaniclastics	49278	40.50-42.00	1.50	0.005	0.40	21.0	34.0	30.0	45.0	14.0
		Aphanitic, greenish-red, Brecciated, crystalline	49279	42.00-43.50	1.50	0.005		31.0	253.0		78.0	18.0
		contact 60°	49280	43.50-45.00	1.50	0.010		26.0	266.0		41.0	14.0
		Frs=16/m :Vns =40/m	49281	45.00-46.50	1.50	0.005		23.0	174.0		34.0	10.0
		Moderate SI patches	49282	46.50-48.00	1.50	0.005	4.20	20.0	3112.0		42.0	16.0
		Weak CL pervasive	49283	48.00-49.50	1.50	0.005	0.80	25.0	802.0		39.0	16.0
		Weak MS patches	49284	49.50-51.00	1.50	0.005		28.0	71.0	15.0	31.0	14.0
		Weak KS patches										
		Trace EP patches										
		Strong HE stockwork										
		Moderate QC stockwork										
		Hematite stockwork zone within very fine grained volcaniclastic, weakly brecciated and rarely foliated within crystalline matrix. No strongly discernable orientation of foliation/bedding. ALTERATION- strong pervasive hematite with less stockwork and micorfracture controlled, weak pervasive chlorite, moderate patchy silica, likely weak to moderate K-spar based on previous staining. Moderate highly irregular quartz/calcite stockwork, trace patchy epidote. Lower contact=chloritic/ pyritic foliation at 60 degrees.										
	<41.82-41.87>	spec/calcite/chlorite vein										
		vein 40°										
		Moderate SE microveins										
		1 5mm. specularite/calcite/chlorite calcite vein at 40 degrees.										
	<49.60-51.90>	Broken Core										
		fracturing 90°										
		Weak to moderate to rubbly broken core, trace limonite fracture fill. Fractures commonly at 90 degrees. Does not look like major structure. Local patches of oikiocrysts.										
	<55.35-55.50>	MINERALIZATION- 10% pyrite.										
	<55.35-55.50>	foliated 60°										
		Strong chlorite/pyrite +/- calcite foliation at 60 degrees. MINERALIZATION- 10% pyrite.										
55.50	64.50	Biotite Hbl Fdsp xtalline	49285	55.00-56.50	1.50	0.005		17.0	35.0	25.0	30.0	18.0
		Redish-green, stockwork, fractured	49286	56.50-58.00	1.50	0.005		5.0	16.0	5.0	16.0	14.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Frs=18/m :Vns =40/m	49287	58.00-59.50	1.50	0.005		12.0	25.0		31.0	16.0
		Weak SI patches- - - - -	49288	59.50-62.00	2.50	0.005	0.60	26.0	163.0		66.0	12.0
		Moderate CL disseminated	49289	62.00-63.00	1.00	2.970	1.80	92.0	201.0	15.0	185.0	14.0
		Weak MS patches	49290	63.00-64.50	1.50	0.180	0.60	17.0	283.0	5.0	61.0	12.0
		Strong KS pervasive										
		Strong HE stockwork										
		Moderate QC stockwork										
		Medium to light green to dark red BHFl, potentially host to weak H zone, with 3 to 15% taxitic copper to light gray to cream coloured biotite phenos to 5mm., very fine grained hornblende and matrix. ALTERATION- moderate to strong stockwork hematite, with veins locally to 5cm., moderate wispy and pervasive chlorite, weak patchy silica, weak patchy apple green sericite, moderate irregular quartz/calcite stockwork, weak broken core and ?? core throughout unit. Lower contact=indistinct.										
	<61.85-62.48>	Broken Core										
		Moderate angular broken core with 1% medium grained hematic gouge and trace limonite fracture fill inconsistant fracture orientation.										
	<62.48-62.55>	hematite vein										
		vein 50°										
		Strong SI vein										
		Intense HE vein										
		5cm. hematite with silica and steel blue gray hematite at 50 degrees. No magnetite, no visible sulphide, weak H zone?										
64.50	72.60	Hornblende Feldspar xtalline	49291	64.50-66.00	1.50	0.035		22.0	43.0	15.0	84.0	22.0
		Fine grained, green, broken	49292	66.00-66.50	0.50	0.015		42.0	60.0	15.0	214.0	20.0
		sheeting 75°:fracturing 30°	49293	66.50-67.00	0.50	30.360	2.00	25.0	95.0	55.0	246.0	24.0
		Trace SI selvages	49294	67.00-68.00	1.00	1.430		39.0	124.0	15.0	513.0	26.0
		Strong CL SHEETED	49295	71.00-72.00	1.00	0.060		12.0	26.0	15.0	161.0	24.0
		Trace MS patches	49296	72.00-72.50	0.50	0.035		13.0	17.0	40.0	148.0	22.0
		Strong KS pervasive										
		Weak HE wispy										
		Weak CV selvages										
		Weakly mottled HFx1 with decreasing hematite stockwork til absent near lower contact. Milled light green to light gray often cryptic hornblende phenos to 1.5mm., very fine grained matrix. ALTERATION- weak wispy with less pervasive hematite, moderate to strong sheeted with less pervasive chlorite, weak to absent silica as chlorite vein selvages. Moderate to weak with limonite										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		fracture fill broken core throughout lower contact=fault zone. Fractures common at 30 degrees.										
<64.60-65.45>		Chlorite sheeting sheeting 75° Strong CL SHEETED Strong chlorite sheeting, not braided at 75 degrees.										
<66.55-66.62>		hematite vein vein 50° Weak MT vein Intense HE vein 3cm. massive hematite vein with weak magnetite at 50 degrees, weak H zone?										
<67.60-72.60>		Broken Core Oxidized fracturing 30° Moderate broken core with moderate limonite fracture fill. Fractures common at 30 degrees, maybe conjugate to fault zone.										
<72.32-72.34>		Semi-massive hematite Intense HE patches Semi-massive hematite batch.										
<72.34-72.60>		VEINED & DISSEMINATED SULPHIDE 5% pyrite as fine grained euhedral irregular stringers and fracture fill.										
72.60	81.30	rubbly fault zone Gouge, oxidized gouge 10° Moderate CL pervasive Strong KS pervasive Rubbly, rusty fault zone with fine grained to medium grained gouge seams to 8mm., a shallow angle to core axis, likely within BHF1.										
81.30	102.00	Biotite Hbl Fdsp xtalline	49297	82.00-83.50	1.50	0.005		115.0	100.0	115.0	38.0	36.0
		Fine grained, green, crystalline	49298	85.50-87.00	1.50	0.005	0.40	55.0	98.0	65.0	44.0	70.0
		qz-carb veining 60°	49299	90.75-91.25	0.50	0.015	0.40	14.0	42.0	5.0	100.0	1716.0
		Frs=12/m :Vns =15/m	49300	91.25-93.00	1.75	0.005		10.0	20.0		40.0	20.0
		Moderate CL pervasive	49301	93.00-94.50	1.50	0.005		9.0	11.0		35.0	22.0
		Strong KS pervasive	49302	94.50-96.00	1.50	0.010		11.0	26.0		28.0	18.0
		Moderate QC microveins	49303	99.50-101.00	1.50	0.010		12.0	63.0	20.0	30.0	8.0
		Medium to dark green HFx1/BHF1 transition zone with 2										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		to 10% light gray platy eu to subhedral hexagonal biotite phenos to 4mm., 25% light gray subhedral hornblende needles to 1.5mm., very fine grained matrix. ALTERATION- moderate pervasive chlorite, strong to moderate pervasive K-spar likely moderate calcite +/- quartz stockwork common at 60 degrees.										
<85.50-86.85>		Trace MT stringer MINERALIZATION- 1% stringer very fine grained pyrite.										
<85.50-86.85>		stringer 45° Moderate CB wispy Moderate HE wispy Moderate wispy hematite with calcite. MINERALIZATION- 1% stringer very fine grained pyrite.										
<90.95-91.03>		MINERALIZATION- 5% arsenopyrite.										
<90.95-91.03>		VEINED & DISSEMINATED SULPHIDE stringer 40° 1 to 3mm. arsenopyrite stringer at 40 degrees. MINERALIZATION- 5% arsenopyrite.										
<91.50-97.50>		Weak MT wispy MINERALIZATION- 2% very fine grained wispy pyrite.										
<91.50-97.50>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 2% very fine grained wispy pyrite.										
<97.75-97.81>		?? MT vein MINERALIZATION- one 8mm. pyrite vein at 40 degrees, 6% pyrite.										
<97.75-97.81>		MASSIVE SULPHIDE VEIN microveins 40° MINERALIZATION- one 8mm. pyrite vein at 40 degrees, 6% pyrite.										
102.00	106.50	rubbly fault zone Gouge Rubbly angular broken core with fine grained to medium grained gouge seams to 8cm., about 1m. of lost core within HFx1/BHF1, no limonite and no bleaching.										
<104.00-105.00>		LOST CORE About 1m. of lost core.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
106.50	131.80	Biotite Hbl Fdsp xtalline	49304	106.50-108.00	1.50	0.005	0.20	9.0	42.0	30.0	50.0	14.0
		Gray, broken, crystalline	49305	108.00-109.50	1.50	0.005		9.0	36.0	25.0	46.0	14.0
		Frs=13/m :Vns =12/m	49306	122.00-123.50	1.50	0.005		11.0	38.0	5.0	53.0	14.0
		Weak SI pervasive	49307	123.50-125.00	1.50	0.005		12.0	47.0	130.0	49.0	20.0
		Trace CL wispy	49308	125.00-126.50	1.50	0.005	0.40	14.0	51.0	45.0	50.0	18.0
		Moderate CB pervasive	49309	126.50-128.00	1.50	0.010	0.20	12.0	48.0	230.0	63.0	20.0
		Moderate KS pervasive	49311	130.00-131.50	1.50	0.005	0.60	11.0	86.0	25.0	183.0	56.0
		Weak PY patches										
		Weak QC microveins										
		Medium gray BHFl/HFxl transition with 1 to 5% light gray platy subhedral hornblende needles and laths to 2.5mm. aphanitic matrix. ALTERATION- weak to moderate pervasive silica, moderate pervasive sericite, K-spar liekly weak to moderate quartz/calcite stockwork, weak broken core throughout with common soft or gougy slips. Lower contact= fault zone, pyritic patches throughout.										
		<107.00-109.60> Moderate MT wispy MINERALIZATION- 3% wispy fine grained to medium grained pyrite, trace arsenopyrite.										
		<107.00-109.60> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% wispy fine grained to medium grained pyrite, trace arsenopyrite.										
		<109.60-116.80> Trace MT disseminated MINERALIZATION- 1% disseminated fine grained pyrite.										
		<109.60-116.80>MINERALIZATION- 1% disseminated fine grained pyrite.										
		<116.80-118.90> rubbly fault zone fracturing 30° Moderate fault zone with medium grained granular gray gouge to 1cm. at 30 degrees with moderate to strong angular, soft broken core.										
		<123.00-127.10> Moderate MT patches MINERALIZATION- 3% fine grained to medium grained patchy pyritee with less disseminations.										
		<123.00-127.10> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% fine grained to medium grained patchy pyrite with less disseminations.										
		<130.00-131.80> Moderate MT wispy MINERALIZATION- 3% wispy fine grained to medium										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		grained pyrite.										
		<130.00-131.80> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% wispy fine grained to medium grained pyrite.										
131.80	138.23	rubbly fault zone Gray, crystalline, gouge fracturing 20° Moderate SI pervasive Trace CL wispy Moderate MS pervasive Moderate KS pervasive Weak PY wispy Several gougy slips likely at low angles to core axis within BHFl, D.A.P. 106.5 to 131.80m. MINERALIZATION- 2% wispy fine grained pyrite.	49312 49313 49314	131.50-133.00 133.00-134.00 135.50-137.00	1.50 1.00 1.50	0.010 0.005 0.005	 0.20 0.20	11.0 12.0 13.0	58.0 53.0 50.0	30.0 45.0 35.0	40.0 55.0 39.0	16.0 30.0 12.0
		<131.80-138.23> Weak MT wispy MINERALIZATION- 2% wispy fine grained pyrite.										
138.23	146.25	Biotite Hbl Fdsp xtalline Gray, broken, crystalline Frs=25/m :Vns =10/m Moderate SI pervasive Moderate MS pervasive Moderate KS pervasive Weak PY wispy Weak QC stockwork Medium gray BHFl with 8% light gray euhedral platy biotite phenos to 5mm., typical hornblendes, aphanitic matrix. ALTERATION- moderate pervasive silica, sericite, K-spar, moderate irregular calcite +/- quartz stockwork. Lower contact=fault zone. MINERALIZATION- 3% fine grained wispy pyrite with less disseminations.	49315 49316	137.00-138.50 144.00-145.50	1.50 1.50	0.005 0.005	 0.20	13.0 13.0	50.0 47.0	20.0 25.0	49.0 46.0	22.0 30.0
		<138.23-146.25> Moderate MT wispy MINERALIZATION- 3% fine grained wispy pyrite with less disseminations.										
146.25	153.92	Broken Core Fine grained, gray, gouge, crystalline Moderate SI pervasive Moderate CL wispy Moderate MS pervasive Moderate KS pervasive	49317	150.00-151.50	1.50	0.005		12.0	53.0	45.0	53.0	16.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate QC microveins Strong angular to rubbly broken core with gougy seams to 3mm. Irregular but generally shallow to core axis within BHFl, light gray. ALTERATION- moderate wispy chlorite, moderate pervasive silica, sericite, K-spar. MINERALIZATION- 3 to 4% wispy chlorite and fine grained granular patches.										
<146.25	153.92	MINERALIZATION- 2 to 4% wispy chlorite and fine grained granular patches.										
153.92	159.65	Hornblende Feldspar xtalline Fine grained, dark gray, mottled cleavage, foliation 65° Frs=10/m :Vns =35/m Weak SI pervasive Moderate CL wispy Moderate MS pervasive Moderate KS pervasive Moderate CV stockwork Medium to dark gray to green gray mottled, pockmarked HFxl? rare light gray subhedral hornblende phenos to 1mm., fine grained matrix. ALTERATION- moderate pervasive and wispy chlorite, weak to pervasive silica, moderate pervasive sericite, K-spar? moderate calcite stockwork at 65 degrees, increasing towards lower contact. Lower contact=irregular calcite vein.	49318	158.00-159.50	1.50	0.005		33.0	108.0	30.0	74.0	14.0
159.65	176.13	volcaniclastics Greenish-gray, foliated, crystalline foliated 30°:qz-carb veining 70° Frs=10/m :Vns =8/m Trace CL wispy Moderate CB pervasive Moderate MS pervasive Weak PY disseminated Weak QC microveins Light green gray moderately to strongly foliated crystalline lapilli tuff. May unlikely be altered flow or high level intrusive. Flattered, contorted, elongate light to dark green lapillis; foliation; likely remnant bedding layering is gently contorted but generally shallow to core axis, average 30 degrees. ALTERATION- strong pervasive sericite, moderate pervasive carbonate, weak irregular quartz/calcite veining commonly at 65 degrees, weak to trace wispy chlorite, likely none to trace K-spar.	49319	159.50-161.00	1.50	0.065	1.00	30.0	178.0	50.0	192.0	44.0
			49320	161.00-162.50	1.50	0.005	0.60	14.0	86.0	50.0	52.0	6.0
			49321	162.50-164.00	1.50	0.005	0.60	15.0	108.0	30.0	66.0	8.0
			49322	170.00-171.50	1.50	0.005	0.80	20.0	65.0	45.0	109.0	30.0
			49323	171.50-173.00	1.50	0.005	0.80	19.0	55.0	110.0	63.0	20.0
			49324	173.00-174.50	1.50	0.005	1.20	18.0	79.0	170.0	70.0	38.0
			49325	174.50-176.00	1.50	0.005	0.80	15.0	55.0	80.0	130.0	30.0

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<159.65-160.30> VEINED & DISSEMINATED SULPHIDE Brecciated, foliated Brecciated volcaniclastic with 10% fine grained to medium grained disseminated pyrite, 0.4% disseminated sphalerite.										
		<160.85-161.4Brecciated volcaniclastic with 5% fine grained to medium grained disseminated pyrite, trace sphalerite.										
		<161.45-164.50> Strong MT patches MINERALIZATION- 4% fine grained to medium grained patchy pyrite with less disseminations.										
		<161.45-164.50> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% fine grained to medium grained patchy pyrite with less disseminations.										
		<169.50-170.80> Trace MT disseminated MINERALIZATION- 10% fine grained euhedral disseminated pyrite within foliated, brecciated.										
		<169.50-170.80> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 10% fine grained euhedral disseminated pyrite within foliated, brecciated.										
		<170.80-171.20> Broken Core Rubbly angular broken core, trace gouge, no discernable consistant fracture orientation.										
		<172.50-176.00> Strong MT disseminated MINERALIZATION- 4% disseminated euhedral pyrite within foliated and weakly brecciated volcaniclastic.										
		<172.50-176.00> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% disseminated euhedral pyrite within foliated and weakly brecciated volcaniclastics.										
176.13	188.37	volcaniclastics Fine grained, redish-purple, crystalline, foliated foliated 45° Moderate CL interstitial Strong HE interstitial Moderate CV patches Maroon crystalline highly contorted foliated tuffs, inconsistant with green tuffs from 184.3 to E.O.H. Foliation/layering quite irregular, from 30 to 55	49326 49327	176.00-177.50 182.50-184.00	1.50 1.50	0.005 0.005	0.60 0.40	14.0 10.0	21.0 26.0		92.0 54.0	8.0 6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		degrees, averaging 45 degrees, crystalline, mafic with milled cream coloured crystals within aphanitic matrix. ALTERATION- strong pervasive hematite, different than H zone style to moderate pervasive chlorite, irregular patchy calcite +/- chlorite. Lower contact=E.O.H.										
<180.60-182.27>		Broken Core gouge 10° Strong rubbly broken core with rehealed gougy seams (hematitic) to 5cm. at 10 degrees. Likely does not have major offset.										
(eoh)												

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-63

PROJECT: Clone	Date Commenced: 25/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-63	Date Completed: 26/08/96		Geotech by:
LENGTH: 128.02	Core Diam: BQTK		

Collar Location

Latitude:	2252.66
Departure:	2041.76
Elevation:	1419.45

S U M M A R Y

0.00-7.32	CASING
7.32-30.30	volcaniclastics
30.30-39.00	Hornblende Feldspar xtalline
39.00-44.25	volcaniclastics
44.25-46.50	rubbly fault zone *
46.50-48.55	Hornblende Feldspar xtalline *
48.55-49.77	gouge
49.77-66.41	Hornblende Feldspar xtalline *
66.41-66.72	massive hematite *
66.72-73.75	Hornblende Feldspar xtalline *
73.75-76.80	VEINED & DISSEMINATED SULPHIDE ***
76.80-91.79	Hornblende Feldspar xtalline *
91.79-103.61	Biotite Hbl Fdsp xtalline
103.61-125.00	tuff *****
125.00-128.02	mudstone

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	7.32	CASING Casing, drilled through glacial ice.										
7.32	30.30	volcaniclastics	49328	9.00-10.50	1.50	0.005	0.20	18.0	37.0	10.0	135.0	10.0
		Fine grained, red, mottled, stockwork	49329	15.00-16.50	1.50	0.005		23.0	47.0	10.0	113.0	8.0
		qz-carb veining 25°	49330	16.50-18.00	1.50	0.020		45.0	36.0	30.0	92.0	10.0
		Frs=12/m :Vns =40/m	49331	22.00-23.50	1.50	0.010		19.0	23.0		49.0	4.0
		Moderate CL pervasive	49332	23.50-25.00	1.50	0.005		18.0	69.0		52.0	10.0
		Weak MS patches	49333	25.00-26.50	1.50	0.005	0.20	29.0	54.0	15.0	43.0	8.0
		Strong KS pervasive	49334	26.50-28.00	1.50	0.005		38.0	57.0		37.0	6.0
		Trace EP patches	49335	28.00-29.50	1.50	0.005		36.0	78.0	5.0	57.0	8.0
		Strong HE stockwork										
		Weak QC microveins										
		Strong to moderate hematite stockwork zone in probable fragmental. Strong mottled texture with uncommon indistinct subangular to subrounded fine grained fragments, rare crystalline. Could possibly be a transition of strong alteration. May be mottled HFxl breccia. ALTERATION- strong stockwork and pervasive hematite with less irregular microfracture controlled. Moderate locally strong pervasive chlorite, local moderate patchy sericite, local weak patchy epidote, wea irregular quartz/calcite stockwork and tension fractures, often at 25 degrees. Lower contact=indistinct.											
	<10.65-15.24>	Broken Core gouge 55° Strong CL pervasive Weak HE stockwork Strong pervasive chlorite, weak hematite stiockwork, local pods od weak broken core and calcite leaching, overprinted by narrow gouge seams at 55 degrees and weak rusty locally rubbly broken core.										
	<26.55-27.40>	fracturing 0° Weak broken core with rusty limonite fracture fill. Fractures generally at 0 degrees to core axis.										
30.30	39.00	Hornblende Feldspar xtalline	49336	29.50-31.00	1.50	0.040		20.0	35.0	15.0	41.0	8.0
		Greenish-red, foliated, stockwork	49337	31.00-32.50	1.50	0.005		6.0	9.0	10.0	13.0	6.0
		foliated 40°	49338	32.50-34.00	1.50	0.005		5.0	10.0	10.0	10.0	8.0
		Frs=8/m :Vns =100/m	49339	34.00-35.50	1.50	0.005	0.20	6.0	12.0	15.0	21.0	12.0
		Intense MS patches	49340	35.50-37.00	1.50	0.005		11.0	26.0	5.0	43.0	10.0
		Intense HE SHEETED	49341	37.00-38.00	1.00	0.005		12.0	12.0	10.0	21.0	12.0
		Strongly hematized and serecitized foliated HFxl, 25%	49342	38.00-39.00	1.00	0.035	4.40	8.0	1848.0	15.0	24.0	10.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		light green translucent hornblende phenos observed in light green HFxl patches; also coarse grained augite looking possible pseudos, may just be affects. ALTERATION- intense red to maroon sheeted hematite, from 60 to 40 degrees, average 50 degrees foliation, strong patchy light apple green sericite. No apparent altered minerals. Lower contact=broken core with malachite staining. Possible megabreccia? Hematite shear zone?										
<37.80-38.10>		Broken Core Oxidized fracturing 30° Moderate angular broken core, rusty fractures common at 30 degrees. Likely weak fault slip.										
<38.85-39.00>		Rubbly broken core with strong malachite fracture fill. No visible calcopyrite.										
39.00	44.25	volcaniclastics Fine grained, grayish-red, mottled, spherulitic Frs=9/m :Vns =45/m Weak CL pervasive Weak KS pervasive Strong HE stockwork Weak CV selvages Gray red possible fine grained fragmental or volcaniclastic with characteristic black anhedral lathy phenos? mudstone chips, moderate to strong hematite, strong hematite stockwork, probably moderate to weak pervasive K-spar; irregular weak calcite stockwork. Possible intrusive type not yet seen.	49343 49344 49345	39.00-40.50 40.50-42.00 42.00-43.50	1.50 1.50 1.50	0.005 0.005 0.005		24.0 23.0 20.0	48.0 31.0 24.0	 10.0 	47.0 35.0 44.0	8.0 8.0 6.0
<44.18-44.25>		gouge gouge 50° Narrow gougy slips, with very fine grained gray gouge and pyrite and weak limonite fracture fill at 50 degrees.										
44.25	46.50	rubbly fault zone Dark gray, bleached gouge 45° Medium gray rehealed gouge within soft bleached HFxl. Gouge sections generally at 40 to 50 degrees, average 45 degrees. MINERALIZATION- 5% fine grained to very fine grained wispy euhedral pyrite.	49346 49347	43.50-45.00 45.00-46.50	1.50 1.50	0.005 0.010	 0.20	17.0 19.0	33.0 22.0	 5.0	36.0 38.0	4.0 6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<44.25-46.50>		Intense MT wispy MINERALIZATION- 5% fine grained to very fine grained wispy euhedral pyrite.										
46.50	48.55	Hornblende Feldspar xtalline Fine grained, redish-green, crystalline, foliated Frs=6/m :Vns =40/m Moderate CL pervasive Moderate MS patches Moderate KS pervasive Moderate HE stockwork Weak CV stockwork Medium green to reddish green likely foliated HFxl with 25% light gray hornblende needles to 2mm., very fine grained to aphanitic matrix. ALTERATION- moderate hematite stockwork, moderate pervasive chlorite, K-spar, moderate patchy sericite. Lower contact=gouge. MINERALIZATION- 2% disseminated pyrite.	49348	46.50-48.00	1.50	0.010		32.0	19.0	10.0	90.0	2.0
<46.50-48.55>		Weak MT disseminated MINERALIZATION- 2% disseminated pyrite.										
48.55	49.77	gouge Dark gray 22cm. of very fine grained muddy gouge, light gray. Possible minor offset since hematite vein appears to ?? gouge? Fault may be at 40 degrees.	49349 49350	48.00-48.77 48.77-49.50	0.77 0.73	1.080 0.425	0.60 0.40	121.0 103.0	61.0 131.0	95.0 70.0	225.0 131.0	18.0 32.0
49.77	66.41	Hornblende Feldspar xtalline Fine grained, redish-green, veined microveins 30° Frs=7/m :Vns =15/m Moderate SI selvages Moderate CL pervasive Weak MT microveins Strong KS pervasive Strong HE microveins Weak CV stockwork Weak H zone? within typical medium green to red green HFxl hematite veins to 3cm., averaging 8mm. with good silica/K-spar selvages at 30 degrees, locally with magnetite, moderate pervasive chlorite. No visible sulphides. Strong H zone displaced by fault at upper contact.	49351	49.50-50.00	0.50	6.520	0.60	113.0	51.0	75.0	57.0	6.0
<50.84-66.41>		Fine grained, redish-green, stockwork, crystalline Frs=16/m :Vns =20/m	49352 49353	50.00-51.00 51.00-52.50	1.00 1.50	13.440 0.060	1.00	160.0 15.0	193.0 50.0	125.0	47.0 27.0	6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Weak SI patches	49354	52.50-54.00	1.50	0.125	0.20	9.0	71.0	10.0	34.0	
		Moderate CL pervasive	49355	54.00-55.00	1.00	0.060	0.40	24.0	43.0	55.0	93.0	
		Strong KS pervasive	49356	55.00-56.50	1.50	0.005		14.0	308.0	5.0	39.0	
		Moderate HE stockwork	49357	61.00-62.50	1.50	0.005		5.0	20.0		20.0	
		Moderate CV stockwork	49358	65.00-66.41	1.41	0.140	0.20	6.0	106.0	5.0	19.0	4.0
		Weak hematite stockwork zone, decreasing towards lower contact, medium to dark green HFx1 with 20% light gray to light green subhedral hornblende needles to 1.5mm., very fine grained to aphanitic matrix. Rare light gray platy biotite phenos. ALTERATION- weak to moderate wispy chlorite, moderate pervasive chlorite, likely strong pervasive K-spar. Lower contact=sharp, irregular.										
<54.20-54.80>		Strong MT disseminated MINERALIZATION- 4% fine grained to coarse grained disseminated pyrite, generally with calcite.										
<54.20-54.80>		VEINED & DISSEMINATED SULPHIDE Strong CL patches Weak S2a zone halo. Strong patchy chlorite, weak disseminated hematite. MINERALIZATION- 4% fine grained to coarse grained disseminated pyrite, generally with calcite.										
<56.75-60.10>		Broken Core Oxidized Weak to moderate broken core with weak limonite fracture fill, irregular fracture orientation.										
<60.10-63.00>		Moderate SI patches Trace HE wispy Moderate patchy pervasive silica, trace wispy hematite.										
66.41	66.72	massive hematite Aphanitic, blackish-red, veined Frs=0/m :Vns =35/m Moderate SI patches Intense MT massive Intense HE massive Strong SE microveins Strong QV microveins S2a zone, semi-massive to massive irregular hematite/magnetite, cross cut by irregular quartz/specularite tension fractures, moderate patchy silica. MINERALIZATION- trace calcopyrite, trace	46359	66.41-66.72	0.31	12.930						

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		possible visible gold.										
		<66.41-66.72>MINERALIZATION- trace calcopyrite, trace possible visible gold.										
66.72	73.75	Hornblende Feldspar xtalline	49360	66.72-67.50	0.78	0.080	0.20	20.0	89.0	10.0	19.0	
		Fine grained, dark green, crystalline, sheared	49361	67.50-69.00	1.50	0.005	0.20	13.0	12.0	10.0	17.0	
		qz-carb veining 35°:sheeting 50°	49362	69.00-70.50	1.50	0.010	0.40	9.0	53.0	25.0	17.0	4.0
		Strong CL SHEETED	49363	70.50-72.00	1.50	0.005		11.0	80.0		21.0	
		Strong KS pervasive	49364	72.00-73.00	1.00	0.010		10.0	49.0		21.0	4.0
		Trace HE wispy										
		Weak QC macroveins										
		S2a zone halo within HFxl/BHFl transition zone.										
		Typical HFxl with absent to 1% subhedral platy light										
		gray euhedral biotite phenos to 3mm. Strong chlorite										
		streaming throughout, generally at 50 degrees, but										
		variable, trace wispy hematite, absent by 69 meters.										
		Probably strong pervasive K-spar, 25cm. quartz/calcite										
		vein at 35 degrees. MINERALIZATION- 25% disseminated										
		pyrite.										
		<66.72-73.75> Weak MT disseminated										
		MINERALIZATION- 25% disseminated pyrite.										
73.75	76.80	VEINED & DISSEMINATED SULPHIDE	49365	73.00-74.00	1.00	0.095		15.0	51.0	30.0	50.0	
		Fine grained, grayish-green, crystalline	49366	74.00-75.00	1.00	2.890	2.40	230.0	312.0	9795.0	111.0	46.0
		vein 40°	49367	75.00-76.00	1.00	1.620	1.40	191.0	395.0	1925.0	36.0	4.0
		Frs=15/m :Vns =30/m										
		Moderate SI pervasive										
		Moderate CL patches										
		Strong KS pervasive										
		Moderate PY patches										
		Moderate CV microveins										
		Medium gray green HFxl with typical hornblendes and										
		matrix with fair S zone mineralizations. Moderate										
		patchy and wispy chlorite, moderate pervasive silcia,										
		likely strong pervasive K-spar, arsenopyrite, pyrite										
		generally associated with patchy chlorite. Sulphide										
		veins often at 40 degrees, but irregular.										
		<74.35-74.72> ?? MT granular										
		8 % arsenopyrite - patches										
		MINERALIZATION- 8% medium grained granular patchy										
		arsenopyrite, 6% medium grained granular pyrite.										
		<74.35-74.72> VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 8% medium grained granular patchy										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		arsenopyrite, 6% medium grained granular pyrite.										
		<74.72-76.15> Weak MT granular 1 % arsenopyrite - patches MINERALIZATION- 1% medium grained granular arsenopyrite patches with less disseminations, 2% medium grained to coarse grained granular pyrite with less disseminations.										
		<74.72-76.15> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 1% medium grained granular arsenopyrite patches with less disseminations, 2% medium grained to coarse grained granular pyrite with less disseminations.										
		<76.15-76.80> ?? MT granular 2 % arsenopyrite - patches MINERALIZATION- 2% medium grained granular arsenopyrite patches, 8% fine grained to medium grained granular pyrite, foliated at 60 degrees.										
		<76.15-76.80> VEINED & DISSEMINATED SULPHIDE foliated 60° MINERALIZATION- 2% medium grained granular arsenopyrite patches, 8% fine grained to medium grained granular pyrite, foliated at 60 degrees.										
76.80	91.79	Hornblende Feldspar xtalline	49368	76.00-77.00	1.00	1.860	1.40	266.0	288.0	2960.0	61.0	12.0
		Fine grained, gray, mottled, crystalline	49369	77.00-78.50	1.50	0.070	0.40	36.0	127.0	225.0	43.0	6.0
		Frs=10/m :Vns =15/m	49370	78.50-80.00	1.50	0.005		27.0	124.0	30.0	42.0	
		Weak CL wispy	49371	80.00-81.50	1.50	0.035	0.40	40.0	173.0	220.0	48.0	
		Moderate MS pervasive	49372	81.50-83.00	1.50	0.040		74.0	117.0	520.0	37.0	
		Weak KS patches	49373	89.00-90.50	1.50	0.010		38.0	95.0	275.0	30.0	
		Trace PY patches										
		Strong CV stockwork										
		Medium gray weakly mottled HFxl with typical hornblendes and very fine grained matrix. Local oikiolitic patches. ALTERATION- weak wispy chlorite, moderate patchy sericite, weak to moderate pervasive K-spar. Strong irregular calcite stockwork. Lower contact=distinct, good texture.										
		<81.00-81.60> Moderate MT patches 1 % arsenopyrite - disseminated MINERALIZATION- 3% patchy medium grained pyrite, 1% medium grained disseminated arsenopyrite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<81.00-81.60>		VEINED & DISSEMINATED SULPHIDE Moderate CL patches Moderate patchy black green chlorite. MINERALIZATION- 3% patchy medium grained pyrite, 1% medium grained disseminated arsenopyrite.										
91.79	103.61	Biotite Hbl Fdsp xtalline	49374	93.00-94.50	1.50	0.135		10.0	34.0	70.0	29.0	4.0
		Gray, crystalline, massive	59353	94.50-95.00	0.50							
		contact 30°	59354	95.00-96.00	1.00							
		Trace SI patches	59355	96.00-97.00	1.00							
		Strong MS pervasive	59356	97.00-98.00	1.00							
		Moderate KS pervasive	59357	98.00-99.00	1.00							
		Weak QC microveins	59358	99.00-100.00	1.00							
		Medium to light gray BHFl with 15% light gray to cream	59359	100.00-101.00	1.00							
		to brown euhedral platy biotite +/- augite? phenos to	59360	101.00-102.00	1.00							
		4mm., 20% light gray to cream hornblendes to 1.5mm.,	59361	102.00-103.00	1.00							
		aphanitic matrix. ALTERATION- strong pervasive										
		sericite, likely moderate pervasive K-spar, weak										
		patchy silica to absent, trace wispy chlorite,										
		moderate at lower contact. Lower contact=sharp at 30										
		degrees.										
<96.20-96.63>		rubbly fault zone Gouge gouge 30° Weak fault zone with medium grained sandy gouge, probably at 30 degrees with moderate broken core. No limonite or calcite leaching.										
<102.45-103.61>		VEINED & DISSEMINATED SULPHIDE Moderate SI wispy Moderate wispy chlorite with 3% medium grained to coarse grained disseminated pyrite.										
103.61	125.00	tuff	49375	103.00-104.50	1.50	1.930	1.60	18.0	91.0	50.0	53.0	26.0
		Dark green, crystalline, layered	49376	104.50-106.00	1.50	0.005	1.60	23.0	99.0	60.0	139.0	24.0
		laminations 30°:contact 60°	49377	106.00-107.50	1.50	0.005	0.80	20.0	73.0	50.0	83.0	26.0
		Trace SI patches	49378	107.50-108.82	1.32	1.460	0.60	13.0	66.0	110.0	56.0	6.0
		Trace CL wispy	49380	108.82-110.00	1.18	5.830	1.80	84.0	152.0	2130.0	32.0	10.0
		Moderate CB patches	49381	110.00-111.00	1.00	1.680	0.80	41.0	103.0	925.0	27.0	8.0
		Intense MS pervasive	49382	111.00-112.00	1.00	3.680	1.20	93.0	111.0	2575.0	33.0	14.0
		Moderate PY disseminated	49383	112.00-113.00	1.00	0.055		9.0	30.0	20.0	40.0	
		Weak QC microveins	49384	118.00-119.50	1.50	1.010		29.0	162.0	265.0	85.0	6.0
		Strongly layered sericitized crystal tuff to lapilli	49385	119.50-121.00	1.50	0.920		31.0	82.0	395.0	45.0	8.0
		tuff, local layers of light green translucent elongate	49386	121.00-122.50	1.50	0.010		15.0	53.0	25.0	44.0	6.0
		hornblende? needles to 2.5mm., strongly foliated,	49387	122.50-124.00	1.50	0.060	0.40	23.0	76.0	40.0	56.0	6.0
		gently rolling from 20 to 40 degrees, average 30	49388	124.00-125.00	1.00	0.015	0.80	23.0	77.0	55.0	70.0	20.0

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	degrees. May be foliated intrusive or flows, local possible flow ?? breccia, local black mudslate layers. ALTERATION- intense pervasive sericite, moderate pervasive carbonate, local weak patchy silica, weak irregular quartz/calcite stockwork. Lower contact=sharp at 60 degrees. MINERALIZATION- 4 to 10%, average 5% foliated and disseminated fine grained pyrite.										
<103.61-125.00>	Intense MT disseminated MINERALIZATION- 4 to 10%, average 5% foliated and disseminated fine grained pyrite.										
<103.61-104.50>	Trace MT disseminated MINERALIZATION- 10% fine grained to very fine grained disseminated weakly foliated pyrite.										
<103.61-104.50>	VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 10% fine grained to very fine grained disseminated weakly foliated pyrite.										
<106.43-106.85>	?? MT disseminated MINERALIZATION- 8% fine grained euhedral dissmeinated pyrite, trace sphalerite.										
<106.43-106.85>	VEINED & DISSEMINATED SULPHIDE foliated 45° Moderate CL SHEETED Moderate sheeted black chlorite, foliated at 45 degrees. MINERALIZATION- 8% fine grained euhedral disseminated pyrite, trace sphalerite.										
<107.51-107.95>	mudstone laminations 30° Black mudstone layer with layering at 30 degrees, likely remnant bedding.										
<108.60-121.50>	Hornblende Feldspar xtalline Crystalline, mottled Intense MS pervasive Appears to be strongly sericitized mottled, pockmarked HFxl. May be undifferentiated crystal tuff.										
<108.80-109.30>	?? MT patches MINERALIZATION- 8% fine grained to medium grained patchy pyrite within irregular patchy chlorite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<108.80-109.30> VEINED & DISSEMINATED SULPHIDE Moderate CL patches MINERALIZATION- 8% fine grained to medium grained patchy pyrite within irregular patchy chlorite.										
		<111.30-111.85> Moderate MT disseminated 3 % arsenopyrite - patches MINERALIZATION- 3% arsenopyrite as medium grained granular patches, 3% medium grained disseinated pyrite, within moderate patchy black green chlorite.										
		<111.30-111.85> VEINED & DISSEMINATED SULPHIDE Moderate CL patches MINERALIZATION- 3% arsenopyrite as medium grained granular patches, 1% medium grained disseminated pyrite, within moderate patchy black green chlorite.										
125.00	128.02	mudstone Aphanitic, black, layered laminations 65° Frs=12/m :Vns =8/m Moderate CB patches Trace MT pervasive Black very fine grained mudstone intercalated with light green crystal tuffs. Layering common at 60 to 70 degrees, average 65 degrees, weak to moderate patchy carbonate, weak irregular quartz/calcite veining. Lower contact=EOH.	49389	125.00-126.50	1.50	0.010		25.0	75.0	20.0	66.0	8.0
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-64

PROJECT: Clone	Date Commenced: 26/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-64	Date Completed: 27/08/96		Geotech by:
LENGTH: 188.98	Core Diam: BQTK		

Collar Location

Latitude:	2252.66
Departure:	2041.76
Elevation:	1419.45

SUMMARY

0.00-6.40	CASING
6.40-10.05	Debris flow
10.05-48.30	volcaniclastics
48.30-49.20	Pyroxene porphry
49.20-49.70	Hornblende Feldspar xtalline
49.70-51.90	rubbly fault zone *
51.90-70.26	Hornblende Feldspar xtalline
70.26-70.48	hematite vein *
70.48-89.95	Hornblende Feldspar xtalline *
89.95-107.00	Hornblende Feldspar xtalline ***
107.00-128.00	Hornblende Feldspar xtalline *
128.00-129.50	rubbly fault zone
129.50-132.50	Hornblende Feldspar xtalline
132.50-132.75	gouge
132.75-144.00	Hornblende Feldspar xtalline *
144.00-156.70	volcaniclastics *
156.70-173.00	tuff **
173.00-185.03	tuff
185.03-187.16	tuff *
187.16-188.98	mudstone *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-60.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	6.40	CASING Casing, drilled through glacial ice.										
6.40	10.05	Debris flow Dark red, heterolithic, foliated foliated 30°:contact 70° Frs=12/m :Vns =4/m Moderate CL pervasive Moderate MS patches Strong HE SHEETED Weak CV stockwork Maroon, to patchy red green debris flow, foliated at 30 degrees, heterolithic with 40% crystalline fragments to 4cm., 60% lithic or very fine grained crystalline speckled (porphyritic?) hematic +/- chloritic matrix. Lower contact=sharp at 70 degrees. ALTERATION- intense sheeted hematite, moderate patchy and pervasive chlorite, weak irregular calcite stockwork.										
10.05	48.30	volcaniclastics Greenish-red, foliated, heterolithic sheeting 30° Frs=9/m :Vns =70/m Trace SI pervasive Moderate CL pervasive Moderate MS patches Moderate KS patches Intense HE SHEETED Weak CV stockwork Mottled intensely to moderately hematitic fragmental with possible crystalline matrix. Absence of coarse porphyritic fragments, 10 to 2% very fine grained possible lithic fragments, subangular to 3cm. Local black lathy phenos/ mudstone chips fine grained to very fine grained matrix. ALTERATION- intense to moderate sheeted, commonly foliated at 30 degrees, moderate patchy pervasive chlorite, absent to intense apple green sericite, especially near lower contact; weak irregular calcite stockwork. Lower contact= indistinct.	49390	9.00-10.50	1.50	0.010	1.20	22.0	192.0	10.0	122.0	24.0
			49391	15.00-16.50	1.50	0.005		34.0	76.0		66.0	14.0
			49392	20.00-21.50	1.50	0.005		20.0	31.0		42.0	2.0
			49393	23.40-25.00	1.60	0.020		38.0	45.0		93.0	6.0
			49394	25.00-26.50	1.50	0.010		36.0	56.0	5.0	103.0	12.0
			49395	26.50-28.00	1.50	0.055		47.0	244.0		102.0	8.0
			49396	28.00-29.50	1.50	0.145		206.0	90.0	15.0	134.0	4.0
			49397	29.50-31.00	1.50	0.005		36.0	23.0		60.0	8.0
			49398	31.00-32.50	1.50	0.060		43.0	146.0		49.0	
			49399	38.00-39.50	1.50	0.005		17.0	17.0	15.0	50.0	8.0
			49400	39.50-41.00	1.50	0.005		14.0	44.0	20.0	44.0	8.0
			49401	45.00-46.50	1.50	0.005		30.0	12.0	15.0	91.0	12.0
<15.97-19.35>		Strong CL pervasive Weak HE stockwork Strong pervasive chlorite, weak stockwork hematite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<24.00-28.00>		foliated 40° Strong foliation at 40 degrees.										
<36.50-39.60>		foliated 30° Strong foliation of fragments at 30 degrees. Possible debris flow layer?										
<39.60-40.65>		Intense MS pervasive Intense pervasive apple green sericite.										
<40.18-40.23>		gouge gouge 55° Weak gougy slip at 55 degrees.										
<40.23-44.85>		foliated 40° Strong patchy pervasive sericite, strongly foliated at 40 degrees.										
48.30	49.20	Pyroxene porphry Medium grained, green, porphyritic contact 80° Moderate MS pervasive Trace HE wispy Dyke of pyroxene rich intrusive with 35% euhedral pyroxenes (not augites) to 1mm., fine grained matrix. ALTERATION- moderate pervasive sericite likely, trace wispy hematite. This unit is seen in thicker sections in later holes.										
49.20	49.70	Hornblende Feldspar xtalline Fine grained, greenish-red, crystalline, stockwork contact 20° Frs=15/m :Vns =30/m Weak SI pervasive Moderate CL pervasive Strong KS pervasive Strong HE pervasive Hematite stockwork zone within typical HFxl. Strong pervasive hematite, moderate chlorite, weak silica. Lower contact=gougy slips at 20 degrees.										
49.70	51.90	rubbly fault zone Fine grained, gray, bleached, broken gouge 20° Frs=10/m :Vns =40/m Rehealed gougy fault zone within fine grained gougy seams at about 20 degrees with strong angular broken	49402	50.00-51.50	1.50	0.060	0.20	21.0	41.0	5.0	74.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		core, moderate bleaching and calcite leaching, no hematite or limonite. MINERALIZATION- 2% stringer pyrite at irregular orientations.										
	<49.70-51.90>	Weak MT stringer MINERALIZATION- 2% stringer pyrite at irregular orientations.										
51.90	70.26	Hornblende Feldspar xtalline Greenish-red, crystalline, stockwork stockwork 40° Frs=10/m :Vns =40/m Trace SI patches Moderate CL pervasive Moderate MS patches Strong KS pervasive Moderate HE stockwork Weak CV stockwork Weak QC stockwork Hematite stockwork zone within transition stage HFx1 to BHF1 with absent to 2% taxitic euhedral copper coloured biotite phenos to 3mm., locally, 20% light green to light gray commonly cryptic hornblende needles to 1.5mm. aphanitic matrix. ALTERATION- strong stockwork hematite, often at 40 degrees, with local weak to absent patches, moderate pervasive chlorite, 1coal moderate patchy apple green sericite, weak to moderate irregular calcite stockwork.	49403 49404 49405 49406 49407 49408 49409	55.00-56.50 59.00-60.50 60.50-62.00 62.00-63.00 63.00-64.50 68.00-69.00 69.00-70.00	1.50 1.50 1.50 1.00 1.50 1.00 1.00	0.010 0.005 0.010 0.005 0.010 0.010 0.005		10.0 8.0 11.0 12.0 16.0 77.0 155.0	15.0 14.0 10.0 9.0 44.0 26.0 24.0	 10.0 75.0	79.0 43.0 64.0 73.0 69.0 122.0 162.0	2.0 4.0 4.0 2.0 4.0 6.0
	<62.60-62.78>	hematite vein Moderate SI patches Strong HE vein Irregular massive hematite vein with patchy silica.										
	<62.78-67.55>	Broken Core Oxidized Strong CL pervasive Weak HE wispy Strong pervasive chlorite, weak wispy hematite, weak broken core throughout with weak limonite fracture fill.										
70.26	70.48	hematite vein Blackish-red, foliated vein 50° Frs=8/m :Vns =6/m Moderate SI patches										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong MT vein Intense HE vein H zone? S2a zone? Massive hematite/magnetite veins to 7cm. at 50 degrees, moderate patchy silica. MINERALIZATION- trace calcopyrite, trace visible gold.										
<70.26-70.48>		MINERALIZATION- trace calcopyrite, trace visible gold.										
70.48	89.95	Hornblende Feldspar xtalline	49410	70.00-71.00	1.00	4.120	0.80	54.0	38.0	80.0	42.0	12.0
		Fine grained, greenish-red, crystalline, stockwork	49411	71.00-72.50	1.50	0.005		29.0	236.0		55.0	4.0
		Frs=7/m :Vns =40/m	49412	72.50-74.00	1.50	0.005		26.0	184.0		45.0	2.0
		Weak SI pervasive Moderate CL pervasive Moderate HE stockwork Weak QC stockwork Moderate hematite stockwork zone within typical HFxl with aphanitic matrix. ALTERATION- moderate to strong hematite stockwork and microfracture controlled with rare stringers to 4mm., irregular moderate to strong pervasive chlorite, weak pervasive silica, weak irregular quartz/calcite stockwork. Lower contact=rubbly broken core. End of hematite stockwork zone.										
<75.30-89.95>		Fine grained, green, crystalline	49413	74.00-75.50	1.50	0.035		26.0	104.0		49.0	
		Frs=12/m :Vns =18/m	49414	75.50-77.00	1.50	0.015		66.0	85.0	60.0	75.0	12.0
		Strong CL pervasive	49415	82.00-83.50	1.50	0.010		13.0	23.0	15.0	23.0	6.0
		Weak CB patches	49416	86.00-87.50	1.50	0.005		13.0	50.0		31.0	4.0
		Strong KS pervasive Trace PY disseminated Weak QC stockwork Fine grained HFxl with 20% light green locally cream hornblende phenos to 1.5mm., very fine grained to aphanitic matrix. ALTERATION- strong to moderate pervasive chlorite, decreasing to wards lower contact, weak to absent patchy calcite, weak irregular QH/calcite stockwork, trace wispy hematite in calcite veins. Lower contact=broken core. MINERALIZATION- 0.3% patchy fine grained pyrite with less disseminations throughout.										
<75.30-89.95>		?? MT patches MINERALIZATION- 0.3% patchy fine grained pyrite with less disseminations.										
<83.84-84.40>		rubbly fault zone gouge 60°										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Two 5mm. medium grained gougy slips at 60 degrees. Likely minor structures.										
		<86.00-87.40> Chlorite Streaming sheeting 25° Moderate CL SHEETED Moderate chlorite streaming, more wispy than braided at 25 degrees.										
89.95	107.00	Hornblende Feldspar xtalline	49417	89.00-90.50	1.50	0.015		15.0	84.0	15.0	43.0	18.0
		Fine grained, gray, crystalline, massive	49418	90.50-92.00	1.50	0.005		11.0	74.0	25.0	30.0	2.0
		Frs=8/m :Vns =14/m	49419	92.00-93.50	1.50	0.005		13.0	97.0	50.0	46.0	12.0
		Weak SI pervasive	49420	93.50-95.00	1.50	0.005		12.0	95.0	35.0	41.0	8.0
		Trace CL wispy	49421	95.00-96.50	1.50	0.015		14.0	84.0	10.0	44.0	10.0
		Moderate MS pervasive	49422	96.50-98.00	1.50	0.005		11.0	65.0	5.0	29.0	4.0
		Moderate HE pervasive	49423	98.00-99.00	1.00	0.005		12.0	88.0	10.0	36.0	10.0
		Weak PY disseminated	49424	99.00-100.00	1.00	0.005		12.0	88.0		26.0	2.0
		Weak QC microveins	49425	103.00-104.50	1.50	0.010		12.0	32.0		30.0	
		Medium gray to green gray HFxl with 20% light gray hornblende needles to 1.5mm., aphanitic matrix. ALTERATION- moderate pervasive sericite, K-spar, trace to weak wispy chlorite, weak to moderate pervasive silica, weak to moderate irregular quartz/calcite stockwork.										
		<89.95-98.80> Moderate MT wispy MINERALIZATION- 3% fine grained to very fine grained wispy pyrite.										
		<89.95-98.80> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% fine grained to very fine grained wispy pyrite.										
		<98.80-99.95> Trace MT disseminated MINERALIZATION- 10% disseminated fine grained pyrite, strong pervasive silica.										
		<98.80-99.95> VEINED & DISSEMINATED SULPHIDE Strong SI pervasive MINERALIZATION- 10% disseminated fine grained pyrite, strong pervasive silica.										
		<103.20-103.75> Strong MT wispy MINERALIZATION- 4% wispy fine grained pyrite.										
		<103.20-103.75> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% wispy fine grained pyrite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
107.00	128.00	Hornblende Feldspar xtalline	49426	113.00-114.50	1.50	0.005		14.0	61.0	15.0	28.0	6.0
		Fine grained, gray, crystalline, massive	49427	119.00-120.50	1.50	0.005		12.0	43.0	20.0	34.0	4.0
		qz-carb veining 60°	49429	124.00-125.50	1.50	0.010		18.0	92.0	60.0	63.0	14.0
		Frs=5/m :Vns =20/m										
		Moderate SI pervasive										
		Trace CL wispy										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Moderate QC microveins										
		Medium gray HFxl/BHFl transition zone with 1% light gray to brown sub to euhedral biotite phenos to 2mm., 20% light gray hornblende needles to 2mm., aphanitic matrix. ALTERATION- moderate pervasive sericite, K-spar, moderate pervasive silica, moderate quartz/calcite stockwork/ tension fractures commonly at 60 degrees. Lower contact= fault zone. MINERALIZATION- 1 to 2% disseminated and wispy fine grained pyrite.										
<107.00-128.00>		Trace MT disseminated										
		MINERALIZATION- 1 to 2% disseminated and wispy fine grained pyrite.										
<124.30-125.10>		*Weak CL wispy*										
		Weak wispy chlorite.										
128.00	129.50	rubbly fault zone										
		Gouge										
		fracturing 5°										
		Rubbly angular broken core with gouge seams to 1cm., fractures wuite irregular, most ?? ?? quite shallow, about 5 degrees, weak bleaching, no limonite fracture fill.										
129.50	132.50	Hornblende Feldspar xtalline										
		Fine grained, gray, crystalline, massive										
		qz-carb veining 60°										
		Frs=16/m :Vns =10/m										
		Moderate SI pervasive										
		Trace CL wispy										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Moderate QC microveins										
		HFxl/BHFl transition. D.A.P. 107.0 to 128.0m										
132.50	132.75	gouge										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
156.70	173.00	tuff	49439	161.00-162.50	1.50	0.020	0.40	24.0	109.0	30.0	140.0	24.0
		Fine grained, gray, crystalline, foliated	49440	162.50-164.00	1.50	0.010		19.0	94.0	10.0	89.0	36.0
		foliated 40°	49441	167.00-168.00	1.00	0.010	0.40	13.0	47.0	25.0	51.0	26.0
		Frs=8/m :Vns =10/m	49442	170.00-171.50	1.50	0.010	0.60	20.0	63.0	25.0	81.0	58.0
		Trace CL wispy	49443	171.50-173.00	1.50	0.060	3.60	21.0	100.0	80.0	281.0	202.0
		Strong MS pervasive										
		Trace KS pervasive										
		Moderate QC microveins										
		Medium gray to green gray likely crystal tuff or flow?										
		strongly foliated intercalated with mudstone layers,										
		weakly rolling foliations, HFxl. ALTERATION- intense										
		pervasive sericite, likely weak to absent K-spar based										
		on previous staining, moderate to weak quartz/calcite										
		stockwork common at 60 degrees. Lower contact=sharp,										
		irregular. MINERALIZATION- 2% fine grained to medium										
		grained granular pyrite patches.										
		<156.70-173.00> Weak MT patches										
		MINERALIZATION- 2% fine grained to medium grained										
		granular pyrite patches.										
		<168.00-168.30> rubbly fault zone										
		gouge 60°										
		5cm. fault zone, medium grained rehealed gouge at 60										
		degrees.										
		<168.50-173.00> laminations 40°										
		Strong foliation at 40 degrees, likely remnant										
		bedding/layering.										
		<170.40-172.90> Trace MT disseminated										
		MINERALIZATION- 10% euhedral disseminated pyrite.										
		<170.40-172.90> VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 10% euhedral disseminated pyrite.										
173.00	185.03	tuff	49444	177.50-179.00	1.50	0.080	0.60	16.0	16.0	130.0	90.0	14.0
		Fine grained, purpleish-red, bedded, crystalline	49445	181.00-182.00	1.00	0.115	3.00	35.0	113.0	20.0	323.0	54.0
		Frs=80/m :Vns =30/m										
		Strong CL interstitial										
		Strong HE interstitial										
		Moderate QC patches										
		Intercalated maroon and green tuffs, commonly bedded										
		at 60 degrees, common interlayered cream coloured										
		milled crystals. ALTERATION- strong interstitial										
		hematite and chlorite, moderate to strong										
		quartz/calcite veins and patches to 1.2cm., average										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		8mm. Lower contact=sharp, irregular. Local highly contorted sections, maroon and green layers, generally 3 or 4m. thick.										
		<174.90-176.75> Broken Core Rubbly broken core.										
		<180.20-183.20> gouge 20° Weak to moderate rubbly broken core, rare gougy seams to 3m.										
185.03	187.16	tuff Fine grained, gray, layered, crystalline foliated 5°:contact 30° Frs=5/m :Vns =5/m Weak CL wispy Strong MS pervasive Weak QC microveins Strongly layered but contorted crystal tuff. D.A.P. 156.70 to 183.0m. Foliation/layering generally shallow to core axis at 5 degrees. Lower contact=sharp at 30 degrees. MINERALIZATION- 6% fine grained euhedral pyrite.	49446	185.00-186.50	1.50	0.010	0.40	15.0	23.0	20.0	66.0	14.0
		<185.03-187.16> ?? MT fine grained MINERALIZATION- 6% fine grained euhedral pyrite.										
187.16	188.98	mudstone Aphanitic, black, foliated, contorted Frs=6/m :Vns =10/m Moderate CB patches Trace MS patches Black to dark well bedded/foliated yet contorted mudstone with irregular carbonaceous lapilli stones? ALTERATION- moderate patchy carbonate, trace patchy sericite, weak irregular quartz/calcite veining, generally at low angle to core axis. MINERALIZATION- 5% euhedral fine grained pyrite. Lower contact=E.O.H.	49447	187.16-188.98	1.82	0.010	3.20	16.0	95.0	55.0	102.0	18.0
		<187.16-188.98> Intense MT fine grained MINERALIZATION- 5% euhedral fine grained pyrite. Lower contact=E.O.H.										
		(eoh)										

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-65

PROJECT: Clone	Date Commenced: 27/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-65	Date Completed: 28/08/96		Geotech by:
LENGTH: 128.02	Core Diam: BQTK		

Collar Location

Latitude:	2303.43
Departure:	2039.33
Elevation:	1428.89

S U M M A R Y

0.00-9.75	CASING
9.75-26.55	Pyroxene porphry
26.55-28.95	Semi-massive hematite
28.95-33.90	Debris flow *
33.90-44.50	volcaniclastics
44.50-56.15	Biotite Hbl Fdsp xtalline
56.15-60.00	Hornblende Feldspar xtalline *
60.00-61.90	massive hematite *
61.90-69.50	Hornblende Feldspar xtalline
69.50-70.00	VEINED & DISSEMINATED SULPHIDE *
70.00-91.14	volcaniclastics **
91.14-123.65	Hornblende Feldspar xtalline *
123.65-126.16	volcaniclastics *
126.16-128.02	mudstone

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	9.75	CASING Casing, drilled through ice.										
9.75	26.55	Pyroxene porphry Medium grained, grayish-red, heterolithic, Brecciated foliated 55° Frs=7/m :Vns =2/m Moderate CL pervasive Weak MS patches Strong HE interstitial Trace PY disseminated Trace QC stockwork Medium to dark gray red to dark maroon to patchy greenish megabreccia debris flow? intercalated with dykes and flow of pyroxene porphyry? porphyry has 35% black euhedral ?? phenos to 1cm. with fine grained crystalline matrix, other light gray anhedral phenos, present. Some copper like fragments within heterolithic, debris flow sectiond, fragments subangular fine grained lithic, foliation is pretty consistant at 55 degrees. ALTERATION- strong pervasive interstitial hematite, local strong chlorite, local weak patchy sericite, trace irregular quartz/calcite stockwork.	49448 49449	15.00-16.50 22.00-23.00	1.50 1.00	0.005 0.005	 8.20	7.0 3.0	5.0 10.0	 10.0	53.0 97.0	26.0 60.0
<22.35-23.80>		hematite vein Strong SI patches Strong HE patches Irregular rhodenite red hematite/silica patches.										
<24.35-25.30>		Broken Core Oxidized, bleached Weak broken core with moderate bleaching and limonite fracture fill, moderate calcite leaching.										
26.55	28.95	Semi-massive hematite Aphanitic, redish-black, foliated foliated 30°:contact 50° Frs=12/m Weak SI patches Strong CL pervasive Weak MT pervasive Intense HE pervasive Possible debris flow with semi-massive to massive pervasive and veined hematite with much less magnetite. Moderate to weakly foliated at 50 degrees,	49450	26.00-27.50	1.50	0.020	2.00	17.0	66.0	35.0	189.0	90.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		overprinted by weak broken core around upper contact. ALTERATION- intense pervasive hematite, weak pervasive magnetite, strong pervasive dark green chlorite (black hue), weak patchy silica. Lower cotact=sharp at 50 degrees.										
28.95	33.90	Debris flow	49451	27.50-29.00	1.50	0.010	1.40	9.0	40.0	25.0	116.0	138.0
		Fine grained, redish-green, foliated, crystalline foliated 50°	49453	31.50-32.00	0.50	0.015	1.00	16.0	55.0	20.0	109.0	32.0
		Frs=5/m										
		Strong CL pervasive										
		Moderate MS patches										
		Strong HE pervasive										
		Weak PY disseminated										
		Moderate CV patches										
		Strongly foliated hematitic into chloritic near lower contact, debris flow strongly foliated at 5 degrees. No distinct fragments or discernable crystals. ALTERATION- strong to absent pervasive hematite strong near upper contact, moderate patchy sericite, moderate to strong pervasive chlorite near lower contact, moderate patchy calcite. Lower contact=rusty broken core.										
<31.30-33.90>		?? MT disseminated										
		MINERALIZATION- 8% disseminated medium grained euhedral pyrite.										
<31.30-33.90>		VEINED & DISSEMINATED SULPHIDE										
		Strong pervasive chlorite. MINERALIZATION- 8% disseminated medium grained euhedral pyrite.										
33.90	44.50	volcaniclastics	49454	38.00-39.50	1.50	0.010		16.0	10.0	10.0	30.0	
		Fine grained, dark red, stockwork, massive stockwork 60°	49455	43.00-44.50	1.50	0.010		16.0	12.0	10.0	39.0	4.0
		Frs=4/m :Vns =60/m										
		Weak SI pervasive										
		Moderate CL pervasive										
		Intense HE pervasive										
		Trace CV stockwork										
		Strong to intense hematite stockwork zone within volcaniclastic breccia? HFx1? Only visible clasts or phenos are lathy black phenos or mudstone chips, otherwise fine grained to very fine grained. ALTERATION- intense stockwork hematite, often at 60 degrees. Lower contact=indistinct, weak pervasive silica, moderate pervasive chlorite, trace calcite										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		stockwork.										
44.50	56.15	Biotite Hbl Fdsp xtalline	49456	44.50-46.00	1.50	0.060		30.0	33.0	10.0	33.0	4.0
		Greenish-red, crystalline, stockwork	49457	46.00-47.00	1.00	1.010		17.0	462.0	30.0	44.0	6.0
		Frs=5/m :Vns =30/m	49458	47.00-47.60	0.60	0.060	1.60	12.0	1689.0	5.0	42.0	6.0
		Weak SI patches	49459	47.60-49.00	1.40	0.010	0.20	9.0	511.0	15.0	36.0	6.0
		Moderate CL pervasive	49460	52.50-54.00	1.50	0.165		14.0	128.0	25.0	44.0	6.0
		Weak MS patches	49461	54.00-55.50	1.50	0.550	0.20	32.0	268.0	30.0	150.0	4.0
		Trace MT microveins										
		Moderate KS pervasive										
		Trace EP patches										
		Moderate HE stockwork										
		Trace SE microveins										
		Weak QC stockwork										
		Moderate hematite stockwork zone or H or S2a zone halo										
		with 3% cream euhedral biotite +/- augite phenos, 20%										
		light green to cream sub to euhedral, locally light to										
		dark green hornblende laths and needles to 2.5mm.										
		ALTERATION- moderate to strong hematite and stockwork										
		with local massive to 1cm., moderate pervasive										
		chlorite, moderate light green sericite, weak patchy										
		silica, trace patchy epidote with quartz/calcite +/-										
		specularite in irregular veins and tension fractures.										
		Lower contact= indistinct.										
<47.00-47.55>		spec/calcite/chlorite vein										
		Moderate EP microveins										
		Moderate SE microveins										
		Strong QC microveins										
		Irregular quartz/calcite/specularite/chlorite/epidote										
		veins/tension fractures.										
<53.80-54.20>		hematite vein										
		vein 40°										
		Strong MS patches										
		Trace MT vein										
		Strong HE vein										
		3 or 4 hematite with trace magnetite veins to 1cm. at										
		40 degrees, moderate apple green patchy sericite.										
<54.20-56.15>		Strong CL wispy										
		Strong wispy black green chlorite.										
56.15	60.00	Hornblende Feldspar xtalline	49462	55.50-57.00	1.50	0.055		9.0	172.0	15.0	50.0	6.0
		Fine grained, redish-green, veined, crystalline	49463	57.00-58.00	1.00	0.010		4.0	55.0	20.0	35.0	6.0
		vein 40°	49464	58.00-59.00	1.00	0.175		8.0	194.0	25.0	92.0	6.0
		Frs=5/m :Vns =15/m	49465	59.00-60.00	1.00	0.250	0.80	52.0	450.0	150.0	142.0	14.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Weak SI pervasive Moderate CL pervasive Weak MS pervasive Strong KS pervasive Moderate HE vein H zone halo within HFxl with 25% light green to light gray to cream sybhedral hornblende needles to 1.5mm., aphanitic matrix. ALTERATION- massive hematite veins/patches to 2cm. commonly at 40 degrees with less pervasive and irregular stockwork, weak pervasive silica, weak irregular quartz/ calcite veining.										
<59.30-60.00>		.4% chalcopyrite - disseminated MINERALIZATION- 0.4% disseminated calcopyrite.										
<59.30-60.00>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 0.4% disseminated calcopyrite.										
60.00	61.90	massive hematite Aphanitic, blackish-red, veined vein 45° Frs=4/m :Vns =15/m Weak SI patches Moderate CL pervasive Strong MT vein Trace EP microveins Intense HE vein Moderate SE microveins Moderate QC microveins H zone, massive to semi-massive hematite with magnetite within HFxl, no observable phenos. Massive from 60.0 to 61.15m. Irregular quartz/specularite/chlorite tension fractures and veins +/- epidote, weak patchy silica, hematite veins often at 45 degrees. MINERALIZATION- 1% disseminated calcopyrite, 1% disseminated pyrite, trace visible gold.	49466	60.00-61.00	1.00	3.420	1.40	47.0	702.0	305.0	27.0	4.0
<60.00-61.90>		Trace MT disseminated 1 % chalcopyrite - disseminated MINERALIZATION- 1% disseminated calcopyrite, 1% disseminated pyrite, trace visible gold.										
61.90	69.50	Hornblende Feldspar xtalline Fine grained, red, crystalline, stockwork qz-carb veining 75° Frs=8/m :Vns =40/m	49467 49468 49469 49470	61.00-62.00 62.00-63.00 63.00-64.00 64.00-65.50	1.00 1.00 1.00 1.50	0.155 0.005 0.005 0.005		140.0 135.0 29.0 18.0	23.0 38.0 13.0 50.0	135.0 25.0 20.0 15.0	105.0 102.0 58.0 52.0	6.0 18.0 18.0 14.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Weak SI pervasive	49471	65.50-67.00	1.50	0.005		11.0	52.0	10.0	54.0	14.0
		Moderate CL pervasive	49472	67.00-68.50	1.50	0.005		12.0	29.0	15.0	48.0	18.0
		Moderate MS patches	49473	68.50-69.00	0.50	0.005		17.0	2.0	25.0	61.0	20.0
		Moderate KS pervasive										
		Strong HE pervasive										
		Moderate QC microveins										
		Strong hematite stockwork zone/H zone halo with 25% light greeb to light gray to cream hornblende phenos to 1.5mm., aphanitic matrix. ALTERATION- strong pervasive hematite with less stockwork and microfracture controlled with good solution fronts, moderate pervasive chlorite, sericite, weak pervasive silica, weak quartz/calcite stockwork at 75 degrees, 10 veins per meter. Lower contact=indistinct.										
69.50	70.00	VEINED & DISSEMINATED SULPHIDE	49474	69.00-70.00	1.00	1.180	1.00	129.0	213.0	580.0	68.0	36.0
		Fine grained, green, broken microveins 70°										
		Moderate SI pervasive										
		Moderate CL pervasive										
		Strong KS pervasive										
		S2a zone with medium green HFxl typical hornblende and matrix, moderate pervasive chlorite, sericite, absent hematite, moderate pervasive silica. MINERALIZATION- 10% pyrite, 5% arsenopyrite as medium grained granular patches. Overprinted by weak broken core, limonite fracture fill, common at 70 degrees.										
	<69.50-70.00>	Trace MT patches										
		5 % arsenopyrite - patches										
		MINERALIZATION- 10% pyrite, 5% arsenopyrite as medium grained granular patches. Overprinted by weak broken core, limonite fracture fill, common at 70 degrees.										
70.00	91.14	volcaniclastics	49475	70.00-71.00	1.00	0.050	0.20	57.0	145.0	100.0	74.0	36.0
		Green, mottled, crystalline	49476	71.00-72.50	1.50	0.015	0.20	42.0	161.0	40.0	85.0	40.0
		stringer 45°:qz-carb veining 75°	49477	72.50-74.00	1.50	0.010		44.0	111.0	75.0	122.0	40.0
		Frs=6/m :Vns =25/m	49478	74.00-75.50	1.50	0.010		42.0	78.0	50.0	91.0	40.0
		Strong CL wispy	49479	75.50-77.00	1.50	0.015		47.0	107.0	65.0	76.0	46.0
		Weak MS pervasive	49480	77.00-78.50	1.50	0.015		38.0	113.0	75.0	64.0	46.0
		Strong KS pervasive	49481	78.50-80.00	1.50	0.005		40.0	92.0	65.0	111.0	44.0
		Moderate QC microveins	49482	80.00-81.50	1.50	0.005		40.0	68.0	45.0	148.0	42.0
		Medium to dark green gray to medium green very subtle	49483	84.50-86.00	1.50	0.010		34.0	72.0	125.0	109.0	50.0
		fragmental. Some of these units are more obvious, this one is very, very subtle. Taxitic subhedral coarser phenos likely represent fragments and some finer grained varieties are more obvious. ALTERATION-	49484	89.50-91.00	1.50	0.005		45.0	86.0	85.0	116.0	64.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		moderate pervasive locally strong wispy chlorite, likely strong pervasive K-spar, moderate quartz/calcite stockwork at 75 degrees. Wispy hematite from 35 to 50 degrees (chlorite stringers).										
		<70.00-75.90> Strong MT wispy MINERALIZATION- 4% wispy fine grained pyrite generally with chlorite.										
		<70.00-75.90> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% wispy fine grained pyrite generally with chlorite.										
		<75.90-85.70>MINERALIZATION- 5% pyrite generally with chlorite, stringers at 35 and 50 degrees.										
		<75.90-85.70> VEINED & DISSEMINATED SULPHIDE stringer 35°:stringer 50° MINERALIZATION- 5% pyrite generally with chlorite, stringers at 35 and 50 degrees.										
		<76.60-77.00> Broken Core Moderate subangular to rubbly broken core with 1cm. gouge seam. Irregular fracture orientation.										
		<77.75-78.40> gouge 60° Weak broken core with 2 gougy slips (3mm. gouge) at 60 degrees.										
		<88.50-88.57> gouge gouge 60° 3mm. fine grained gray gougy slips at 60 degrees.										
91.14	123.65	Hornblende Feldspar xtalline	49485	91.00-92.50	1.50	0.005		30.0	49.0	35.0	86.0	48.0
		Fine grained, gray, crystalline, massive	49486	99.00-100.50	1.50	0.005		33.0	70.0	35.0	65.0	38.0
		qz-carb veining 75°	49487	104.00-105.50	1.50	0.005		44.0	82.0	40.0	156.0	56.0
		Weak SI pervasive	49488	108.50-110.00	1.50	1.390	0.60	21.0	82.0	75.0	71.0	36.0
		Trace CL pervasive	49489	110.00-111.00	1.00	4.570	0.80	38.0	86.0	290.0	102.0	56.0
		Moderate MS pervasive	49490	111.00-112.00	1.00	0.235	0.40	31.0	65.0	185.0	77.0	44.0
		Moderate KS pervasive	49491	112.00-113.00	1.00	0.035	0.40	19.0	30.0	35.0	111.0	96.0
		Trace PY disseminated	49492	118.00-119.50	1.50	0.005		19.0	26.0	15.0	68.0	36.0
		Weak QC stockwork	49493	122.00-123.50	1.50	0.020	0.40	18.0	26.0	100.0	54.0	24.0
		Medium gray massive undifferentiated HFxl with 25% light gray to light green hornblende needles to 2mm., local to 10% anhedral Fxl ghost, very fine grained matrix. ALTERATION- moderate pervasive sericite, K-spar, weak to moderate pervasive silica, weak to										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		absent pervasive chlorite, weak calcite +/- quartz stockwork at 75 degrees.										
		<108.60-112.75> Strong MT disseminated MINERALIZATION- 4% fine grained to medium grained disseminated pyrite, generally with wispy chlorite.										
		<108.60-112.75> VEINED & DISSEMINATED SULPHIDE Moderate CL wispy MINERALIZATION- 4% fine grained to medium grained disseminated and wispy disseminated pyrite, generally with wispy chlorite.										
123.65	126.16	volcaniclastics	49494	123.50-124.00	0.50	30.670	6.00	1397.0	527.0		230.0	84.0
		Medium grained, greenish-gray, crackled, crackle brecciated, crys	49495	124.00-125.03	1.03	0.175	0.40	244.0	179.0	2820.0	187.0	42.0
		microveins 60°	49496	125.03-126.13	1.10	0.035	0.40	48.0	145.0	110.0	203.0	52.0
		Frs=7/m :Vns =12/m										
		Moderate CL wispy										
		Weak CB patches										
		Strong MS pervasive										
		Moderate KS pervasive										
		Moderate PY microveins										
		Contact breccia? Fragmental volcaniclastic? Host to S2a zone with coarse grained irregular porphyritic fragments? within HFxl matrix pyrite and arsenopyrite mineralization. ALTERATION- moderate wispy chlorite, strong pervasive sericite, moderate pervasive K-spar, weak patchy calcite, sulphide veins at 60 degrees.										
		<124.65-126.16> Trace MT granular 10% arsenopyrite - granular MINERALIZATION- 10% medium grained granular arsenopyrite, 10% fine grained to medium grained granular pyrite, veined at 60 degrees.										
		<124.65-126.16> VEINED & DISSEMINATED SULPHIDE S2a zone. MINERALIZATION- 10% medium grained granular arsenopyrite, 10% fine grained to medium grained granular pyrite, veined at 60 degrees.										
126.16	128.02	mudstone	49497	126.13-127.50	1.37	0.005	0.20	26.0	111.0	50.0	72.0	26.0
		Fine grained, greenish-black, layered										
		Frs=10/m :Vns =4/m										
		Weak CB patches										
		Weak MS patches										
		Weak CV patches										
		Intercalated black mudstone and light green gray										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		crystal tuffs, layered at 55 degrees, likely remnant bedding. ALTERATION- weak patchy sericite, weak patchy carbonate. Lower contact=EOH, weak broken core and limonite fracture fill throughout interval.										
	(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-66

PROJECT: Clone	Date Commenced: 28/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-66	Date Completed: 29/08/96		Geotech by:
LENGTH: 182.88	Core Diam: BQTK		

Collar Location

Latitude:	2303.43
Departure:	2039.33
Elevation:	1428.89

S U M M A R Y

0.00-8.53	CASING
8.53-65.10	Debris flow
65.10-85.30	Hornblende Feldspar xtalline **
85.30-86.00	rubbly fault zone
86.00-93.75	Hornblende Feldspar xtalline *
93.75-101.70	VEINED & DISSEMINATED SULPHIDE ****
101.70-124.00	Hornblende Feldspar xtalline *
124.00-145.32	volcaniclastics ****
145.32-165.11	tuff ***
165.11-174.50	tuff *
174.50-177.57	tuff *
177.57-178.42	mudstone *
178.42-182.88	tuff *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-60.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	8.53	CASING Casing, drilled through ice.										
8.53	65.10	Debris flow	49498	9.00-10.50	1.50	0.035	2.40	30.0	95.0	5.0	577.0	176.0
		Grayish-red, heterolithic, layered	49499	16.00-17.50	1.50	0.010		6.0	3.0	20.0	42.0	16.0
		laminations 30°:contact 40°	49500	24.50-26.00	1.50	0.020	1.20	20.0	52.0		197.0	136.0
		Frs=6/m :Vns =2/m	49501	31.00-32.50	1.50	0.010	1.40	18.0	89.0	10.0	200.0	94.0
		Weak SI patches	49502	38.00-39.50	1.50	0.010	2.40	19.0	52.0	5.0	235.0	98.0
		Strong CL interstitial	49503	43.00-44.50	1.50	0.005	1.80	9.0	60.0	15.0	87.0	60.0
		Moderate MS patches	49538	45.80-47.50	1.70	0.010		8.0		10.0	33.0	44.0
		Strong HE interstitial	49539	47.50-49.00	1.50	0.005	0.20	7.0	2.0		18.0	52.0
		Trace QC microveins	49540	49.00-50.60	1.60	0.005	0.20	9.0	5.0	10.0	43.0	50.0
		Hematitic intercalated with much lesser chloritic	49504	51.50-53.00	1.50	0.010	10.20	7.0	486.0	10.0	216.0	110.0
		debris flows, heterolithic and layered. Possibly	49505	55.00-56.50	1.50	0.010	0.60	17.0	27.0	5.0	150.0	50.0
		intercalated with dykes or flows or possibly large non	49506	56.50-58.00	1.50	0.015	6.60	51.0	266.0	40.0	967.0	696.0
		rotated blocks of pyroxene porphyry with 35% black	49507	58.00-59.50	1.50	0.045	3.40	19.0	377.0	25.0	162.0	114.0
		euhedral pyroxene ?? to 8mm., not augites.	49508	59.50-61.00	1.50	0.065	1.20	41.0	193.0		257.0	74.0
		Heterolithic with fine grained granular heterolithic										
		matrix, 75% fragments are crystalline, mostly pyroxene										
		porphyry with rare HFxl and gabbro fragments, 25% at										
		30 degrees, rolling gently to 35 degrees. ALTERATION-										
		strong interstitial hematite, moderate to strong										
		interstitial chlorite, weak to moderate patchy										
		sericite with less silica, trace quartz/calcite										
		stockwork at 45 degrees. Lower contact=sharp at 90										
		degrees.										
<8.53-14.70>		Intense CL interstitial Moderate HE interstitial Strong to intense interstitial chlorite, weak hematite.										
<11.50-20.00>		foliated 45° Strong foliation at 45 degrees, crystal and fragments? layer? absent.										
<23.65-24.40>		Broken Core Bleached Weak broken core with moderate bleaching and limonite fracture fill, trace medium grained gouge. Possibly able to correlate with fault in CL96-66.										
<24.94-25.10>		Semi-massive hematite Intense SI patches Strong HE patches Fragment of rhodenite red hematite and chalk quartz.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Also seen in CL96-65.										
<27.00-31.50>		foliated 30° Strong layering/foliation at 30 degrees.										
<31.70-34.70>		Broken Core gouge 20° Very weak broken core with gougy slips at 20 degrees, very minor structures.										
<34.70-40.20>		foliated 40° Strong layering/foliation at 40 degrees.										
<45.80-50.60>		Pyroxene porphry Medium grained foliated 30° Weak HE disseminated Weak SE disseminated Dyke/flow/fragment of pyroxene porphyry with 35% euhedral locally, shattered pyroxene ??, 15% ?? phenos, 1% disseminated anhedral specularite blebs. Aphanitic sericitized matrix. Foliation at 30 degrees.										
<53.60-56.50>		Hematitic/carbonaceous fragments to 25cm., aligned at 30 degrees.										
65.10	85.30	Hornblende Feldspar xtalline	49509	66.00-67.50	1.50	0.005		13.0	40.0	10.0	53.0	12.0
		Fine grained, greenish-red, stockwork, crystalline	49510	67.50-69.00	1.50	0.005		13.0	93.0	20.0	58.0	22.0
		qz-carb veining 80°	49511	69.00-70.00	1.00	0.010		12.0	16.0		59.0	14.0
		Frs=10/m :Vns =40/m Weak SI patches Moderate CL pervasive Moderate MS patches Strong KS pervasive Strong HE stockwork Strong QC microveins Hematite stockwork aone, greensih red with 20% light to dark green to cream hornblende needles to 2mm., aphanitic matrix. ALTERATION- strong pervasive and stockwork hematite, moderate pervasive chlorite, weak patchy silica, strong calcite/quartz stockwork at 80 degrees, weak to moderate patchy apple green sericite. S2a horizon but nothing apparent. Lower contact=broken core. Rare cream hornblende: biotite? augites subhedral to 3mm.										
<70.75-85.30>		Fine grained, greenish-gray, crystalline, massive	49512	70.00-71.00	1.00	0.025		20.0	59.0	15.0	61.0	18.0

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		qz-carb veining 80°:stringer 40°	49513	71.00-72.50	1.50	0.005		11.0	45.0	15.0	55.0	16.0
		Frs=6/m :Vns =15/m	49514	73.50-75.00	1.50	0.005		14.0	76.0	10.0	55.0	22.0
		Weak SI pervasive	49515	75.00-76.50	1.50	0.010	0.40	11.0	75.0	5.0	50.0	10.0
		Moderate CL wispy	49516	78.00-79.50	1.50	1.630	1.00	20.0	100.0	20.0	55.0	14.0
		Moderate MS pervasive										
		Moderate KS pervasive										
		Trace PY disseminated										
		Weak CV microveins										
		Weak QC microveins										
		Medium gray green HFxl to medium gray towards lower contact with 20% light gray to light green hornblende phenos to 2mm., rare platy light gray euhedral biotite phenos to 3mm., aphanitic matrix. ALTERATION- moderate wispy chlorite, moderate pervasive sericite, K-spar, weak to moderate pervasive silica, moderate quartz/calcite stockwork at 80 degrees. Wispy hematite stringers, common at 40 degrees. Lower contact=fault zone.										
<73.50-79.30>		Moderate MT wispy										
		MINERALIZATION- 3% wispy fine grained pyrite, generally with chlorite often with silica selvages.										
<73.50-79.30>		VEINED & DISSEMINATED SULPHIDE										
		Weak SI selvages										
		Moderate CL wispy										
		MINERALIZATION- 3% wispy fine grained pyrite, generally with chlorite often with silica selvages.										
<85.00-85.30>		Moderate MT granular										
		6 % arsenopyrite - granular										
		MINERALIZATION- 6% fine grained to medium grained arsenopyrite as veins to 1cm. at 45 degrees with granular patches, 3% fine grained granular pyrite.										
<85.00-85.30>		VEINED & DISSEMINATED SULPHIDE										
		microveins 35°										
		MINERALIZATION- 6% fine grained to medium grained arsenopyrite as veins to 1cm. at 45 degrees with granular patches, 3% fine grained granular pyrite.										
85.30	86.00	rubbly fault zone	49517	85.00-86.00	1.00	0.645		66.0	77.0	6100.0	25.0	4.0
		gouge 40°										
		Rubbly gouge fault zone with 2% fine grained gouge seams to 5mm. often at 40 degrees.										
86.00	93.75	Hornblende Feldspar xtalline	49518	86.00-88.00	2.00	0.050		9.0	72.0	10.0	23.0	6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Fine grained, gray, crystalline	49519	90.50-92.00	1.50	0.015		9.0	56.0	35.0	38.0	10.0
		Frs=10/m :Vns =5/m	49520	92.00-93.00	1.00	0.045		9.0	93.0	10.0	42.0	16.0
		Weak SI pervasive										
		Weak CL wispy										
		Moderate MS pervasive										
		Moderate KS pervasive										
		Weak QC microveins										
		Medium gray HFxl with typical hornblendes and aphanitic matrix. ALTERATION- weak wispy chlorite, weak patchy silica, moderate pervasive K-spar, sericite. Lower contact=graduational. MINERALIZATION- 5% fine grained wispy pyrite.										
	<86.00-93.75>	Intense MT wispy										
		MINERALIZATION- 5% fine grained wispy pyrite.										
93.75	101.70	VEINED & DISSEMINATED SULPHIDE	49521	93.00-94.00	1.00	0.040		8.0	51.0	20.0	40.0	8.0
		Fine grained, greenish-gray, crystalline, veined	49522	94.00-95.00	1.00	0.050	0.20	16.0	120.0	75.0	56.0	16.0
		vein 10°	49523	95.00-96.00	1.00	0.010	0.40	12.0	155.0	10.0	57.0	14.0
		Strong SI patches	49524	96.00-96.89	0.89	0.035		15.0	68.0	35.0	37.0	10.0
		Strong CL wispy	49525	96.89-98.00	1.11	1.690	1.20	1439.0	540.0		67.0	30.0
		Moderate MS pervasive	49526	98.00-99.00	1.00	0.115	1.00	76.0	211.0	235.0	90.0	40.0
		Moderate KS pervasive	49527	99.00-100.00	1.00	2.240	2.80	511.0	690.0	5835.0	113.0	76.0
		Strong PY vein	49528	100.00-101.00	1.00	1.120	1.60	270.0	365.0	4615.0	247.0	136.0
		Weak QC microveins										
		S zone with HFxl with typical hornblendes and aphanitic matrix. Moderate to strong wispy chlorite, moderate to strong patchy silica, moderate pervasive sericite, K-spar, moderate irregular quartz/calcite stockwork, strong arsenopyrite/pyrite veins at shallow angle to core axis, average 10 degrees. Probable shallowing to east of S zone.										
	<93.75-96.89>	Intense MT disseminated										
		1 % arsenopyrite - disseminated										
		MINERALIZATION- 5% disseminated pyrite, 1% disseminated arsenopyrite.										
	<93.75-96.89>	VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 5% disseminated pyrite, 1% disseminated arsenopyrite.										
	<96.89-97.45>	Trace MT patches										
		20% arsenopyrite - patches										
		MINERALIZATION- 20% arsenopyrite, 10% pyrite as granular patches and veins, veined at 10 to 15 degrees with strong patchy chlorite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<96.89-97.45> VEINED & DISSEMINATED SULPHIDE vein 10° Strong CL patches MINERALIZATION- 20% arsenopyrte, 10% pyrite as granular patches and veins, veined at 10 to 15 degrees with strong patchy chlorite.										
		<97.45-100.92> ?? MT wispy 4 % arsenopyrite - wispy MINERALIZATION- 4% arsenopyrite, 8% pyrite as fine grained to medium grained wispy veins and granular patches with less disseminations.										
		<97.45-100.92> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% arsenopyrite, 8% pyrite as fine grained to medium grained wispy veins and granular patches with less disseminations.										
		<100.92-101.70> Trace MT vein MINERALIZATION- 15% fine grained to medium grained pyrite as veins to 1.5cm. at 15 degrees with less stringers and disseminations within strong pervasive silica.										
		<100.92-101.70> VEINED & DISSEMINATED SULPHIDE microveins 15° Intense SI pervasive MINERALIZATION- 15% fine grained to medium grained pyrite as veins to 1.5cm. at 15 degrees with less stringers and disseminations within strong pervasive silica.										
101.70	124.00	Hornblende Feldspar xtalline	49529	101.00-102.00	1.00	0.625		26.0	322.0	40.0	39.0	16.0
		Fine grained, grayish-green, gritty	49530	102.00-103.00	1.00	0.295		43.0	251.0	130.0	73.0	24.0
		qz-carb veining 70°	49531	103.00-104.50	1.50	0.045		18.0	95.0	60.0	64.0	20.0
		Frs=12/m :Vns =8/m	49532	104.50-106.00	1.50	0.015		17.0	81.0	35.0	62.0	24.0
		Moderate CL pervasive	49533	106.00-107.00	1.00	0.160	0.40	50.0	307.0	95.0	80.0	36.0
		Weak MS patches	49534	107.00-108.00	1.00	0.035		45.0	241.0	20.0	92.0	30.0
		Moderate KS pervasive	49535	108.00-109.00	1.00	0.030		40.0	132.0		58.0	26.0
		Trace EP microveins	49536	109.00-110.50	1.50	0.050		44.0	128.0	45.0	52.0	30.0
		Weak QC microveins	49537	110.50-112.00	1.50	0.010		38.0	68.0	35.0	61.0	24.0
		Medium gray to medium green HFxl? very fine grained light gray stubby phenos? to 0.5mm. fine grained matrix. Increasingly mottled towards lower contact. ALTERATION- moderate pervasive chlorite, likely moderate pervasive K-spar, weak irregular	49541	118.50-120.00	1.50	0.065		35.0	88.0	60.0	30.0	4.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		quartz/calcite stockwork, common at 70 degrees often with epidote. Lower contact=indistinct.										
		<106.50-114.50> ?? MT wispy MINERALIZATION- 6% fine grained wispy pyrite.										
		<106.50-114.50> QUARTZ-CALCITE VEINS qz-carb veining 65° Strong CL pervasive Moderate EP microveins Moderate QC microveins Irregular quartz/calcite/epidote veins often at 70 degrees, but as shallow as 45 degrees. Strong pervasive chlorite, about 3 per meter. MINERALIZATION- 6% fine grained wispy pyrite.										
124.00	145.32	volcaniclastics Medium grained, gray, mottled, heterolithic cleavage, foliation 60°:contact 75° Frs=5/m :Vns =20/m Weak SI patches Moderate CL wispy Strong MS pervasive Moderate KS pervasive Weak PY disseminated Moderate CV stockwork Weak QC stockwork Strongly mottled and altered probable fragmental with indistinct irregular fragment margins within a probable crystalline matrix. Heterolithic with dominantly crystalline fragments. Gabbro near lower contact. ALTERATION- weak to moderate wispy chlorite, strong pervasive sericite, likely moderate to weak pervasive K-spar? weak patchy silica, weak irregular calcite stockwork +/- quartz, likely tension fractures common at 60 degrees. Lower contact=sharp at 75 degrees.	49542	124.50-126.00	1.50	0.010		26.0	96.0	15.0	119.0	44.0
			49543	126.00-127.50	1.50	0.005		32.0	100.0	10.0	61.0	6.0
			49544	130.00-131.50	1.50	0.020	0.20	39.0	189.0	20.0	71.0	10.0
			49545	137.00-138.50	1.50	0.010		35.0	91.0	20.0	99.0	4.0
		<124.50-127.25> Strong MT wispy MINERALIZATION- 4% wispy fine grained pyrite, generally with chlorite.										
		<124.50-127.25> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% wispy fine grained pyrite, generally with chlorite.										
		<129.90-130.80> Intense MT granular										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		MINERALIZATION- 5% fine grained to medium grained granular pyrite with less disseminations.										
		<129.90-130.80> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 5% fine grained to medium grained granular pyrite with less disseminations.										
		<137.00-138.20> ?? MT granular MINERALIZATION- 6% fine grained granular pyrite patches with less disseminations.										
		<137.00-138.20> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 6% fine grained granular pyrite patches with less disseminations.										
		<140.65-145.32> gabbro Medium grained, porphyritic Strong CL interstitial Gabbro fragments? dyke 40% subhedral augite phenos to 8mm. completely altered to chlorite/sericite with very fine grained chlorite matrix.										
		<140.70-140.97> Moderate MT patches 1 % chalcopyrite - disseminated MINERALIZATION- 30% fine grained irregular pyrite patch, 1% disseminatd calcopyrite.										
		<140.70-140.97> semi-massive sulphides MINERALIZATION- 30% fine grained irregular pyrite patch, 1% disseminated calcopyrite.										
145.32	165.11	tuff	49546	145.00-146.00	1.00	0.060	2.00	32.0	657.0	80.0	148.0	80.0
		Fine grained, gray, crystalline, layered	49547	146.00-147.50	1.50	0.005		27.0	115.0	70.0	109.0	12.0
		laminations 35°:qz-carb veining 60°	49548	147.50-149.00	1.50	0.005	0.40	16.0	58.0	85.0	94.0	14.0
		Frs=8/m :Vns =12/m	49549	149.00-150.50	1.50	0.005	0.40	16.0	55.0	25.0	108.0	12.0
		Weak SI patches	49550	150.50-152.00	1.50	0.005	0.60	22.0	74.0	35.0	153.0	14.0
		Weak CL patches	49551	152.00-153.50	1.50	0.010	0.80	22.0	83.0	35.0	681.0	42.0
		Strong MS pervasive	49552	153.50-155.00	1.50	0.010	0.80	18.0	48.0	20.0	171.0	52.0
		Moderate PY disseminated	49553	155.00-156.50	1.50	0.010	0.60	23.0	76.0	10.0	87.0	28.0
		Weak QC macroveins	49554	156.50-158.00	1.50	0.025		33.0	140.0		74.0	20.0
		Green gray to medium gray strongly foliated/layered	49555	158.00-159.50	1.50	0.015		25.0	97.0	10.0	55.0	16.0
		crystal tuff? Flows foliated HFxl with 35% lathy fine	49556	159.50-161.00	1.50	0.005		24.0	98.0	5.0	66.0	18.0
		grained phenos to 1mm. with aphanitic matrix. Layering	49557	161.00-162.50	1.50	0.025	1.00	26.0	120.0	50.0	380.0	34.0
		dominantly at 35 degrees. Intercalated with black	49558	162.50-163.00	0.50	0.065	1.00	26.0	84.0	85.0	193.0	32.0
		mudstone? ALTERATION- strong pevasive sericite, weak	49559	163.00-164.50	1.50	0.055	0.40	23.0	144.0	45.0	106.0	32.0
		patchy silica, unknown K-spar, quartz/calcite veins to	49560	164.50-165.11	0.61	0.030	1.40	13.0	40.0		77.0	20.0
		3cm., average 1cm., 5 per meter with less irregular										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		stockwork. Lower contact=sharp, irregular. Well mineralized with pyrite and lesser calcopyrite, weak patchy and wispy brown green chlorite.										
		<147.50-149.55> Moderate MT disseminated MINERALIZATION- 3% disseminated pyrite.										
		<147.50-149.55> mudstone Greenish-black, contorted, foliated laminations 35° Intense SI patches Moderate MS patches Strongly contorted foliated black mudstone intercalated with light green sericite altered crystal tuffs. Layering often at 35 degrees. ALTERATION- intense pathy silica, moderate patchy sericite. MINERALIZATION- 3% disseminated pyrite.										
		<149.55-156.60> ?? MT disseminated .3% sphalerite - wispy MINERALIZATION- 6% disseminated fine grained to medium grained pyrite, 0.3% wispy sphalerite.										
		<149.55-156.60> VEINED & DISSEMINATED SULPHIDE laminations 35° MINERALIZATION- 6% disseminated fine grained to medium grained pyrite, 0.3% wispy sphalerite.										
		<156.60-157.25> rubbly fault zone gouge 60° Moderate fault zone with gougy seams to 3mm., commonly at 60 degrees.										
		<157.25-164.50> Trace MT patches MINERALIZATION- 12% fine grained to coarse grained pyrite as granular patches with less dissemination and veins to 1cm. at 35 degrees.										
		<157.25-164.50> VEINED & DISSEMINATED SULPHIDE *microveins* 35° MINERALIZATION- 12% fine grained to coarse grained pyrite as granular patches with less dissemination and veins to 1cm. at 35 degrees.										
165.11	174.50	tuff Fine grained, redish-purple, layered, contorted contact 65°	49561 49562	167.00-168.50 170.00-171.50	1.50 1.50	0.050 0.005	2.00	19.0 16.0	55.0 4.0		203.0 64.0	24.0 6.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Intercalated typical green and maroon tuffs, highly contorted weak broken core throughout. Lower contact=sharp at 65 degrees. MINERALIZATION- 3% fine grained fracture fill pyrite.										
		<165.11-174.50> Moderate MT fracture fill MINERALIZATION- 3% fine grained fracture fill pyrite.										
174.50	177.57	tuff Gray, crystalline, layered laminations 30°:contact 40° Frs=20/m :Vns =8/m Trace CL wispy Moderate CB patches Strong MS pervasive Moderate HE disseminated Moderate QC patches Medium gray crystal tuff. D.A.P. 145.32 to 165.11. Layering common at 30 degrees. MINERALIZATION- 8% fine grained to very fine grained disseminated pyrite, local moderate iron-carbonate patches. Lower contact=sharp at 40 degrees.	49563	175.00-176.50	1.50	0.010	2.80	24.0	42.0	90.0	23.0	6.0
		<174.50-177.57> ?? MT disseminated MINERALIZATION- 8% fine grained to very fine grained disseminated pyrite, local moderate iron-carbonate patches. Lower contact=sharp at 40 degrees.										
		<175.80-176.20> Broken Core Gouge fracturing 30° Moderate broken core with gougy slips at 20 degrees.										
177.57	178.42	mudstone Aphanitic, black, massive, broken Frs=50/m :Vns =25/m Weak QC patches Black massive mudstone overprinted by moderate broken core to laminations. MINERALIZATION- 10% stringer euhedral pyrite with less fracture fill.	49564	177.57-178.42	0.85	0.010	1.40	19.0	53.0	75.0	40.0	
		<177.57-178.42> Trace MT stringer MINERALIZATION- 10% stringer euhedral pyrite with less fracture fill.										
178.42	182.88	tuff Fine grained, greenish-gray, crystalline, layered	49565 49566	178.42-180.00 180.00-181.50	1.58 1.50	0.165 0.070	4.40 2.40	23.0 19.0	136.0 79.0	70.0 60.0	38.0 36.0	 2.0

FROM TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	laminations 15° Frs=20/m :Vns =25/m Strong SI patches Moderate CL patches Strong MS pervasive Moderate PY disseminated Moderate QC macroveins Medium green gray to medium gray crystal tuff intercalated black argillite, 20% to cryptic light green translucent hornblende? phenos patchy cream laths, elongated at 15 degrees, commonly parallel with foliation. ALTERATION- strong patchy silica, strong pervasive sericite, moderate patchy chlorite. Moderate broken core throughout. MINERALIZATION- 4 to 5% wispy fine grained to medium grained pyrite, likely no pervasive K-spar, try staining. Lower contact=EOH.	49567	181.50-182.88	1.38	0.635	0.40	129.0	231.0	8730.0	72.0	26.0
<178.42-182.88>	Strong MT wispy MINERALIZATION- 4 to 5% wispy fine grained to medium grained pyrite, likely no pervasive K-spar, try staining. Lower contact=EOH.										
(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-67

PROJECT: Clone	Date Commenced: 29/08/96	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-67	Date Completed: 30/08/96		Geotech by:
LENGTH: 153.62	Core Diam: BQTK		

Collar Location

Latitude:	2397.80
Departure:	2051.12
Elevation:	1444.14

S U M M A R Y

0.00-6.71	CASING
6.71-57.75	Debris flow
57.75-64.65	volcaniclastics *
64.65-69.00	Debris flow *
69.00-94.40	volcaniclastics ***
94.40-111.60	Hornblende feldspar breccia *
111.60-113.20	rubbly fault zone
113.20-124.00	tuff **
124.00-126.85	Broken Core
126.85-135.50	mudstone *
135.50-153.62	volcaniclastics *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	270.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	6.71	CASING Casing, drilled through glacial ice.										
6.71	57.75	Debris flow	49569	10.00-12.00	2.00	0.005	0.60	18.0	6.0	15.0	223.0	44.0
		Greenish-red, heterolithic, layered	49570	19.00-20.50	1.50	0.005	0.40	12.0	2.0	5.0	112.0	30.0
		laminations 42°	49571	29.00-30.50	1.50	0.020	0.80	23.0	58.0	20.0	194.0	66.0
		Frs=6/m :Vns =2/m	49572	40.00-41.50	1.50	0.010	1.00	26.0	143.0		207.0	44.0
		Weak SI patches	49573	49.00-50.50	1.50	0.005	1.20	19.0	73.0		182.0	56.0
		Strong CL interstitial	49574	57.00-57.75	0.75	0.005	0.20	12.0	22.0	15.0	207.0	22.0
		Trace CB patches										
		Weak MS patches										
		Strong HE interstitial										
		Trace QC microveins										
		Typical hematitic/chloritic debris flow or megabreccia										
		with 60% crystalline/porphyritic fragments, 40% very										
		fine grained crystalline or lithic within fine grained										
		hematite to chloritic matrix. ALTERATION- strong										
		interstitial hematite, chlorite weak selective										
		alteration of fragments, patchy sericite and silica,										
		weak calcite/quartz veining to 3cm., average 8mm., 2										
		per meter. Lower contact=broken core.										
	<9.60-11.90>	Broken Core Oxidized										
		Weak to moderate broken core with strong limonite										
		fracture fill and weak bleaching, trace medium										
		grainedrusty gouge, irregular fracture orientation.										
	<27.00-28.50>	Foliation at 40 degrees.										
	<44.15-44.78>	Broken Core Bleached, oxidized fracturing 15°										
		Weak broken core, fractures common at 15 degrees,										
		strong bleaching and limonite fracture fill.										
	<45.65-49.20>	Pyroxene porphry Brecciated laminations 45°										
		Primarily brecciated fragments of pyroxene porphyry										
		with 35% black euhedral pyroxene ??, generally										
		elongated parallel with layering at 45 degrees.										
57.75	64.65	volcaniclastics	49575	57.75-58.50	0.75	0.010	1.00	23.0	82.0	480.0	191.0	74.0
		Blackish-gray, heterolithic	49576	58.50-59.36	0.86	0.005	0.60	16.0	38.0	245.0	144.0	28.0
		Frs=2/m	49577	59.36-59.70	0.34	0.045	5.80	363.0	600.0	8730.0	160.0	364.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong SI patches	49578	59.70-60.50	0.80	0.020	1.00	21.0	104.0	140.0	159.0	42.0
		Strong CL pervasive	49579	60.50-62.00	1.50	0.035	1.40	36.0	111.0	205.0	192.0	96.0
		Strong MS patches	49580	62.00-63.50	1.50	0.020	0.80	24.0	90.0	55.0	161.0	62.0
		Weak KS patches	49581	63.50-64.65	1.15	0.025	1.00	21.0	54.0	130.0	162.0	62.0
		Moderate PY patches										
		Possible diatremaceous heterolithic with 20cm., 65% fragments chlorite matrix supported with 25% crystalline, 75% siicified lithic fragments.										
		ALTERATION- strong patchy sericite, silica, moderate interstitial black chlorite? weak patchy K-spar?										
		MINERALIZATION- 6% medium grained patchy pyrite, 4% patchy pyrrhotite, trace disseminated arsenopyrite.										
		Lower contact=broken core.										
	<57.75-64.65>	?? MT patches										
		Strong PR patches										
		.2% arsenopyrite - disseminated										
		4 % pyrrhotite - patches										
		MINERALIZATION- 6% medium grained patchy pyrite, 4% patchy pyrrhotite, trace disseminated arsenopyrite.										
		Lower contact=broken core.										
	<59.40-59.58>	pyrite vein or veinlet										
		vein 70°										
		10cm. massive pyrite vein at 70 degrees, fine grained to coarse grained patches.										
64.65	69.00	Debris flow	49582	64.65-66.00	1.35	0.005	0.80	13.0	46.0		154.0	42.0
		Redish-green, heterolithic, foliated										
		laminations 50°										
		Weak SI patches										
		Strong CL interstitial										
		Weak MS patches										
		Moderate HE interstitial										
		Trace QC microveins										
		Primarily chloritic with lesser hematitic debris flow. D.A.P. 6.71 to 57.75m., weak broken core throughout with possible graduating lower contact. Gradually lose clasts, but keeps strong foliation.										
	<64.65-65.20>	Broken Core										
		Rubbly moderate broken core with weak limonite fracture fill, 1% medium grained gouge, faulted contact.										
	<65.90-68.60>	Weak broken core with moderate limonite fracture fill, irregular fracture orientation.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<68.60-69.00> ?? MT disseminated MINERALIZATION- 6% disseminated pyrite.										
		<68.60-69.00> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 6% disseminated pyrite.										
69.00	94.40	volcaniclastics	49583	68.00-69.50	1.50	0.010	0.80	28.0	79.0	20.0	75.0	36.0
		Redish-green, crystalline, foliated	49584	69.50-71.00	1.50	0.010	0.40	29.0	93.0	50.0	152.0	16.0
		foliated 50°	49585	76.00-77.50	1.50	0.005	0.20	7.0	16.0	20.0	14.0	6.0
		Frs=6/m :Vns =3/m	49586	77.50-79.00	1.50	0.005	0.20	10.0	14.0	20.0	51.0	6.0
		Trace SI patches	49587	79.00-80.50	1.50	0.010	0.20	17.0	12.0	5.0	93.0	14.0
		Moderate CL patches	49588	80.50-82.00	1.50	0.025	1.20	60.0	319.0	75.0	117.0	8.0
		Weak CB patches	49589	82.00-83.50	1.50	1.270	3.60	71.0	816.0	80.0	86.0	12.0
		Strong MS patches	49590	83.50-85.00	1.50	0.130	0.40	28.0	49.0	55.0	81.0	18.0
		Trace MT microveins	49591	85.00-86.00	1.00	0.375	0.60	25.0	87.0	45.0	95.0	22.0
		Strong HE foliated	49592	86.00-87.00	1.00	0.020	0.20	15.0	81.0	15.0	119.0	18.0
		Trace QC stockwork	49594	87.00-88.00	1.00	0.020	1.40	35.0	523.0	35.0	148.0	326.0
		Crystalline volcaniclastic? intercalated with BHFl	49595	88.00-89.00	1.00	0.040	0.40	45.0	123.0	65.0	85.0	24.0
		dykes? layers local salt and pepper textures layers,	49596	89.00-90.00	1.00	0.145	0.60	47.0	144.0	75.0	142.0	22.0
		from 45 to 55 degrees, average 50 degrees. BHFl layers	49597	90.00-91.00	1.00	0.175	0.60	57.0	60.0	90.0	133.0	12.0
		with 15% cream augite/biotite generally elongate with	49598	91.00-92.50	1.50	0.030	0.80	40.0	362.0	55.0	56.0	12.0
		foliation. ALTERATION- strong patchy apple green	49599	92.50-94.00	1.50	0.010	0.40	24.0	79.0	35.0	22.0	10.0
		sericite, moderate pervasive chlorite, strong foliated										
		hematite, trace patchy silica, trace irregular										
		quartz/calcite stockwork.										
		<69.00-69.50> Intense MT disseminated MINERALIZATION- 5% medium grained disseminate pyrite.										
		<69.00-69.50> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 5% medium grained disseminated pyrite.										
		<72.30-77.65> Broken Core Oxidized fracturing 50° Weak broken core with weak limonite fracture fill, fractures generally parallel with foliation at 50 degrees.										
		<82.42-82.90> 3 % chalcopyrite - disseminated MINERALIZATION- 3% disseminated calcopyrite, H zone?										
		<82.42-82.90> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% disseminated calcopyrite, H zone?										
		<85.36-85.48> hematite vein										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Moderate MT macroveins										
		Strong HE macroveins										
		Irregular 7 to 3cm. hematite/magnetite vein, H zone?										
		<85.48-91.30> Trace MT disseminated										
		MINERALIZATION- 1% disseminated pyrite, generally with hematite stringers, trace calcopyrite within one 5mm. hematite stringers at 91.15m.										
		<85.48-91.30>MINERALIZATION- 1% disseminated pyrite, generally with hematite stringers, trace calcopyrite within one 5mm. hematite stringers at 91.15m.										
94.40	111.60	Hornblende feldspar breccia	49600	94.00-95.50	1.50	0.010	0.40	18.0	87.0	15.0	47.0	16.0
		Green, heterolithic	49601	95.50-97.00	1.50	0.005		21.0	58.0		60.0	16.0
		Frs=10/m :Vns =28/m	49602	97.00-98.50	1.50	0.005		28.0	81.0		68.0	16.0
		Strong CL pervasive	49603	98.50-100.00	1.50	0.020		42.0	103.0	30.0	83.0	30.0
		Weak MS pervasive	49604	100.00-101.50	1.50	0.005		36.0	96.0	25.0	147.0	24.0
		Moderate KS pervasive	49605	101.50-103.00	1.50	0.520		37.0	183.0	15.0	66.0	28.0
		Moderate QC microveins	49606	103.00-104.50	1.50	0.025		26.0	107.0		66.0	28.0
		Medium to dark green to gray green fragmental unit	49607	104.50-106.00	1.50	0.115		45.0	125.0	85.0	69.0	34.0
		with 90% irregular commonly indistinct fine grained to	49608	107.00-108.00	1.00	0.305	0.40	75.0	122.0	725.0	85.0	36.0
		coarse grained crystalline units often with weak salt	49609	108.00-109.50	1.50	0.015		17.0	50.0	35.0	46.0	6.0
		and pepper textures or oikiocrysts, 10% lithic or very	49610	109.50-111.00	1.50	0.010	0.60	23.0	138.0	20.0	84.0	30.0
		fine grained tuffaceous fragments, fine grained										
		chloritic groundmass decreasing towards lower contact.										
		ALTERATION- strong to moderate pervasive wispy and										
		locally sheeted chlorite, moderate pervasive K-spar?										
		moderate irregular quartz/calcite stockwork with										
		hematite near upper contact. Lower contact=fault zone.										
		<98.25-101.00> Strong MT patches										
		MINERALIZATION- 4% fine grained patchy pyrite with less disseminations.										
		<98.25-101.00> VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 4% fine grained patchy pyrite with less disseminations.										
		<103.00-103.60> Broken Core										
		gouge 20°										
		Weak broken core with gougy fault slips at 20 degrees, weak fault zone.										
		<107.00-111.60> fracturing 60°										
		Moderate broken core increasing towards lower contact, common irregular gougy slips, fractures commonly at 60										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		degrees.										
111.60	113.20	rubbly fault zone Gouge gouge 60° Rubbly gouge abd fried argillites and green/maroon tuffs, gougy sections to 5cm.; gouge often at 60 degrees, local graphitic sections.	49611	111.00-113.00	2.00	0.010		22.0	78.0	35.0	61.0	16.0
113.20	124.00	tuff Fine grained, dark gray, crystalline, layered foliated 5° Frs=15/m :Vns =15/m Strong CB patches Strong MS pervasive Moderate PY disseminated Moderate QC patches Intercalated black mudstone and light green gray bedded crystal tuff, weakly contorted layer, commonly at 5 degrees. ALTERATION- within tuff, strong pervasive sericite, strong patchy calcite and iron-carbonate, trace wispy, moderate patchy irregular quartz/calcite veins. Lower contact=broken core, weak broken core throughout, trace local mariposite. MINERALIZATION- 5% disseminated euhedral pyrite, trace to 1% disseminated calcopyrite.	49612 49613 49614 49615 49616 49617	113.00-114.50 114.50-116.00 116.00-116.94 119.82-121.00 121.00-122.50 122.50-124.00	1.50 1.50 0.94 1.18 1.50 1.50	0.005 0.010 0.005 0.010 0.005 0.005	0.80 1.20 1.60 1.80 1.20 1.80	17.0 14.0 14.0 16.0 17.0 19.0	58.0 49.0 27.0 33.0 26.0 55.0	35.0 65.0 55.0 60.0 60.0 50.0	79.0 114.0 135.0 438.0 45.0 1189.0	12.0 30.0 34.0 4.0 10.0 12.0
		<113.20-124.00> Intense MT disseminated .5% chalcopyrite - disseminated MINERALIZATION- 5% disseminated euhedral pyrite, trace to 1% disseminated calcopyrite.										
		<117.00-120.30> Broken Core *gouge* 5° Moderate to strong broken core, gougy fractures common a 5 degrees, just weak slips.										
		<121.30-124.00>race mariposite/fuchsite patches.										
		<122.80-123.15> Moderate MT wispy 4 % sphalerite - wispy MINERALIZATION- 4% wispy brownsih black sphalerite, 3% wispy pyrite.										
		<122.80-123.15> VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% wispy brownish black sphalerite, 3% wispy pyrite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
124.00	126.85	Broken Core Fine grained, dark green, crystalline, layered Trace CL wispy Weak CB patches Strong MS pervasive Weak QC patches Strong angular broken core. D.A.P. 133.20 to 124.0m, possibly strongly altered HFxl? Irregular fracture orientation.	49618	124.00-126.85	2.85	0.005	1.20	16.0	33.0	60.0	30.0	12.0
126.85	135.50	mudstone Aphanitic, grayish-black, layered, graphitic laminations 80°:contact 70° Frs=10/m :Vns =20/m Trace MS patches Strong QC brecciated Weakly layered black mudstone to medium gray, layering common at 80 degrees. ALTERATION- strong brecciated quartz/calcite veining, trace patchy sericite. MINERALIZATION- 10% disseminated, wispy fracture fill and stringer pyrite. Lower contact=sharp at 70 degrees.	49619	126.85-128.50	1.65	0.010	1.80	19.0	49.0	85.0	100.0	10.0
			49620	128.50-130.00	1.50	0.005						
			49621	130.00-131.50	1.50	0.020	1.00	13.0	49.0	75.0	26.0	10.0
			49622	131.50-133.00	1.50	0.015	2.20	17.0	82.0	60.0	575.0	14.0
			49623	133.00-134.50	1.50	0.005	2.00	20.0	101.0	125.0	256.0	14.0
<126.85-135.50>		Trace MT disseminated MINERALIZATION- 10% disseminated, wispy fracture fill and stringer pyrite. Lower contact=sharp at 70 degrees.										
135.50	153.62	volcaniclastics Green, crystalline, foliated foliated 70°:qz-carb veining 60° Frs=8/m :Vns =15/m Moderate CL pervasive Weak MS pervasive Moderate PY disseminated Moderate QC microveins Intercalated crystal tuff, very fine grained welded tuffs, fragmental and crystalline flows, generally foliated strong up to core axis, say 70 degrees. ALTERATION- strong to moderate pervasive sericite, weak to moderate patchy pervasive chlorite, within fragmental, most commonly irregular intrusive fragments, mostly diorites, Lower contact=E.O.H.	49624	134.50-136.00	1.50	0.010	1.60	15.0	66.0	75.0	121.0	10.0
			49625	136.00-137.50	1.50	0.005	1.20	12.0	65.0	15.0	425.0	4.0
			49626	137.50-139.00	1.50	0.055	1.40	13.0	64.0	65.0	23.0	2.0
			49627	139.00-140.00	1.00	0.010	1.80	21.0	134.0	95.0	10.0	10.0
			49628	140.00-141.19	1.19	0.030	1.60	16.0	81.0	75.0	17.0	8.0
			49629	145.50-147.00	1.50	0.020	1.60	12.0	87.0	35.0	304.0	8.0
			49630	147.00-148.50	1.50	0.005	1.80	9.0	58.0	25.0	88.0	6.0
			49631	148.50-151.00	2.50	0.005	1.20	13.0	42.0	30.0	61.0	6.0
<137.75-141.19>		Trace MT wispy MINERALIZATION- 15% fine grained to medium grained										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		pyrite as irregular wisps and stringers and veins to 5cm.										
<137.75-141.19>		tuff Aphanitic, dark green, veined, layered laminations 80° Weakly banded welded tuff, light green, well mineralized. MINERALIZATION- 15% fine grained to medium grained pyrite as irregular wisps and stringers and veins to 5cm.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-68

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-68	Date Completed:		Geotech by: MBW
LENGTH: 15.24	Core Diam: NQII		

Collar Location

Latitude:	2083.77
Departure:	1984.70
Elevation:	1416.03

S U M M A R Y

0.00-1.89	CASING
1.89-5.50	volcaniclastics
5.50-8.20	Semi-massive hematite ***
8.20-15.24	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	87.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	1.89	CASING										
		Casing.										
1.89	5.50	volcaniclastics	49632	1.89-3.00	1.11	0.025		35.0	129.0		65.0	
		Redish-green, stockwork, heterolithic	49633	3.00-4.00	1.00	0.015		29.0	111.0		48.0	
		Frs=12/m :Vns =30/m	49634	4.00-5.00	1.00	0.005		33.0	134.0		55.0	4.0
		Weak SI patches	49635	5.00-5.50	0.50	0.065		72.0	293.0	5.0	89.0	16.0
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Weak QC stockwork										
		Hematite stockwork zone within heterolithic probable volcaniclastic fragmental with 35% fragments, 50% lithic, 50% crystalline, commonly ophiolitic with fine grained chloritic matrix. ALTERATION- moderate irregular hematite stockwork, strong pervasive chlorite, weak patchy silica, weak irregular quartz/calcite veins/tension fractures.										
	<2.30-5.50>	Broken Core										
		Weak broken core with weak to moderate limonite fracture fill.										
5.50	8.20	Semi-massive hematite	49636	5.50-6.00	0.50	111.100	16.80	440.0	11200.0	225.0	138.0	18.0
		Blackish-red, veined	49637	6.00-6.50	0.50	10.180	0.20	130.0	237.0		315.0	6.0
		vein 47°	49638	6.50-7.00	0.50	42.110	1.40	280.0	215.0	60.0	327.0	18.0
		Frs=8/m :Vns =10/m	49639	7.00-7.59	0.59	9.320		89.0	88.0	70.0	290.0	54.0
		Moderate SI patches	49640	7.59-8.20	0.61	53.250	1.40	35.0	165.0	200.0	155.0	88.0
		Strong CL pervasive										
		Trace MS patches										
		Strong MT vein										
		Intense HE vein										
		Weak SE microveins										
		Weak QC microveins										
		H zone within probable HFBx, massive hematite +/- magnetite +/- silica veins, often with visible gold. Orientation at 45 to 50 degrees, average 47 degrees. ALTERATION- intense veined hematite, strong veined magnetite, strong pervasive chlorite, weak to moderate patchy silica, weak specularite within irregular quartz/calcite veins/tension fractures. Lower contact= broken core. Weak local malachite fracture fill.										
	<5.50-5.89>	MINERALIZATION- 0.5% calcopyrite, visible gold.										
	<5.50-5.89>	massive hematite										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		vein 50° Massive hematite vein with magnetite at 50 degrees. MINERALIZATION- 0.5% calcopyrite, trace visible gold.										
<7.59-8.20>		MINERALIZATION- 0.3% calcopyrite, no observed visible gold.										
<7.59-8.20>		massive hematite vein 45° Massive hematite/magnetite vein at 45 degrees. MINERALIZATION- 0.3% calcopyrite, no observed visible gold.										
<7.72-7.90>		MINERALIZATION- 0.7% calcopyrite, trace visible gold.										
<7.72-7.90>		massive hematite vein 50° Massive hematite with less magnetite vein, strong silica at 50 degrees. MINERALIZATION- 0.7% calcopyrite, trace visible gold.										
8.20	15.24	volcaniclastics	49641	8.20-9.00	0.80	0.210	1.80	49.0	1826.0		173.0	48.0
		Greenish-red, stockwork	49642	9.00-10.00	1.00	0.020		29.0	209.0		42.0	82.0
		qz-carb veining 70°	49643	10.00-11.00	1.00	0.015		31.0	186.0		33.0	22.0
		Frs=6/m :Vns =40/m	49644	11.00-12.00	1.00	0.360		40.0	246.0		38.0	4.0
		Weak SI patches	49645	14.00-15.00	1.00	0.070		17.0	318.0		31.0	
		Strong CL pervasive										
		Strong KS pervasive										
		Weak EP microveins										
		Moderate HE stockwork										
		Weak QC microveins										
		Hematitic stockwork zone within fragmental volcanics. D.A.P. 1.89 to 5.50m. strong hematite stockwork. Lower contact=E.O.H. Quartz/calcite/chlorite/epidote evins at 65 degrees, 1 per meter.										
<12.10-12.80>		Chlorite Streaming Intense CL SHEETED Strong to intense irregular braided chlorite streaming.										
<13.20-13.55>		Intense CL SHEETED Strong to intense irregular braided chlorite streaming.										
(eoh)												

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-69

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-69	Date Completed:		Geotech by: MBW
LENGTH: 15.24	Core Diam: NQII		

Collar Location

Latitude:	2083.76
Departure:	1984.18
Elevation:	1416.17

SUMMARY

0.00-0.23	CASING
0.23-6.50	volcaniclastics
6.50-7.00	Semi-massive hematite *
7.00-8.00	volcaniclastics
8.00-8.70	massive hematite *
8.70-15.24	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	86.00	-51.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.23	CASING Casing.										
0.23	6.50	volcaniclastics	49646	1.00-2.00	1.00	0.005		35.0	152.0		60.0	
		Redish-green, stockwork, heterolithic	49647	6.00-6.50	0.50	7.630	0.40	199.0	428.0	15.0	406.0	4.0
		Frs=15/m :Vns =25/m Trace SI patches Strong CL pervasive Moderate KS pervasive Moderate HE stockwork Moderate QC stockwork Moderate to strong hematite stockwork within fragmental probable volcanics, heterolithic, 45% fragments with 30% crystalline often oikiolitic phenos in irregular fragments, 70% lithic or fine grained crystalline within ash matrix. ALTERATION- moderate irregular stockwork hematite, increasing towards lower contact, strong pervasive chlorite, moderate irregular quartz/calcite +/- chlorite veining.										
	<0.50-5.30>	Broken Core Weak broken core with moderate limonite fracture fill, irregular fracture orientation, likely due to surficial weathering.										
	<6.32-6.45>	Semi-massive hematite Strong HE SHEETED Irregular semi-massive hematite sheeting.										
	<6.50-7.00>	sheeting 35° Frs=5/m Intense CL pervasive Trace MT pervasive Intense HE SHEETED Moderate SE microveins Moderate QC microveins H zone splay with intensely sheeted to veined hematite, trace magnetite. Intense pervasive black green chlorite, moderate irregular quartz/calcite/specularite evining, weak patchy silica. MINERALIZATION- 1% calcopyrite with wuartz/calcite veins, trace malachite.	49648	6.50-7.00	0.50	2.720		340.0	219.0		673.0	4.0
	<6.50-7.00>	MINERALIZATION- 1% calcopyrite within quartz/calcite veins, trace malachite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
7.00	8.00	volcaniclastics	49649	7.00-7.50	0.50	0.205		209.0	96.0		498.0	
		Redish-green, stockwork, heterolithic	49650	7.50-8.00	0.50	0.465		73.0	120.0	45.0	358.0	22.0
		contact 35°										
		Frs=4/m :Vns =30/m										
		Trace SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Moderate HE stockwork										
		Weak QC stockwork										
		Fragmental volcanic with moderate hematite stockwork zone. D.A.P. 0.23 to 6.50m. Lower contact=sharp at 30 degrees.										
8.00	8.70	massive hematite	49651	8.00-8.70	0.70	51.630	1.60	29.0	239.0	70.0	174.0	90.0
		vein 40°										
		Moderate CL pervasive										
		Moderate MT vein										
		Intense HE vein										
		Strong SE microveins										
		Moderate QC microveins										
		H zone within massive hematite vein with silica, weak magnetite. Veining at 40 degrees, moderate irregular quartz/calcite/specularite veins. MINERALIZATION- 0.3% disseminated calcopyrite, trace visible gold.										
<8.00-8.70>		.3% chalcopyrite - disseminated										
		MINERALIZATION- 0.3% disseminated calcopyrite, trace visible gold.										
8.70	15.24	volcaniclastics	49652	8.70-9.50	0.80	0.135		38.0	401.0		157.0	
		Fine grained, redish-green, stockwork, Brecciated	49653	9.50-10.00	0.50	0.045		31.0	292.0		54.0	
		qz-carb veining 75°	49654	10.00-11.00	1.00	0.030		29.0	266.0		44.0	
		Frs=5/m :Vns =40/m	49655	11.00-12.00	1.00	0.375		41.0	209.0		41.0	2.0
		Trace SI patches	49656	12.00-13.00	1.00	0.015		26.0	386.0		34.0	
		Strong CL pervasive										
		Moderate KS pervasive										
		Moderate EP macroveins										
		Strong HE stockwork										
		Moderate QC macroveins										
		Strong hematite stockwork zone within fragmental volcanics, generally granular lithic or ash. ALTERATION- strong microfracture controlled stockwork hematite, strong pervasive and sheeted chlorite, moderate quartz/calcite/epidote veining to 15cm., average 4 at 75 degrees, weak patchy silica. Lower contact=E.O.H.										
(eoh)												

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-70

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-70	Date Completed:		Geotech by: MBW
LENGTH: 21.34	Core Diam: NQII		

Collar Location	
Latitude:	2083.75
Departure:	1983.74
Elevation:	1416.21

S U M M A R Y

0.00-0.68	CASING
0.68-8.61	volcaniclastics *
8.61-9.75	Semi-massive hematite
9.75-16.33	volcaniclastics
16.33-19.05	Broken Core
19.05-21.34	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	89.00	-55.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.68	CASING Casing.										
0.68	8.61	*volcaniclastics* Greenish-red, heterolithic, stockwork qz-carb veining 35° Frs=20/m :Vns =30/m Strong CL pervasive Moderate KS pervasive Weak EP stockwork Moderate HE stockwork Weak QC stockwork Moderate to strong hematite stockwork zone within heterolithic fragmental probable volcanic with 80% lithic fine grained crystalline, 20% crystalline often poikilitic fine grained ash matrix. Irregular fragments. ALTERATION- strong pervasive chlorite, moderate to strong stockwork and mivorfracture controlled hematite, weak irregular quartz/calcite +/- epidote vein often at 35 degrees. Lower contact=indistinct.	49657 49658 49659 49660 49661	3.00-4.00 5.00-6.00 6.00-7.00 7.00-8.00 8.00-8.61	1.00 1.00 1.00 1.00 0.61	0.015 0.010 0.045 0.020 0.010	 0.40 2.20 	31.0 36.0 37.0 38.0 35.0	100.0 124.0 1090.0 3165.0 361.0	 5.0 	61.0 97.0 74.0 68.0 119.0	 4.0
<0.68-7.50>		Broken Core Weak to moderate broken core with limonite fracture fill, irregular orientation likely due to surficial weather.										
<5.95-6.00>		MINERALIZATION- 3% calcopyrite within irregular quartz/ calcite veins, weak malachite.										
<5.95-6.00>		VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% calcopyrite within irregular quartz/calcite veins, weak malachite.										
8.61	9.75	Semi-massive hematite Grayish-black, sheared sheeting 27° Frs=3/m Intense CL SHEETED Weak MS patches Intense HE SHEETED Trace QC microveins *Weak to moderate H zone, sheeted hematite with* chlorite from 25 to 30 degrees, average 27 degrees. ALTERATION- intense sheeted hematite, chlorite weak patchy sericite. No observed specularite, magnetite,	49662 49663	8.61-9.00 9.00-9.50	0.39 0.50	0.440 0.150	 	62.0 29.0	121.0 67.0	15.0 90.0	270.0 190.0	14.0 16.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		sulphide or visible gold. Lower contact=irregular.										
9.75	16.33	volcaniclastics	49664	9.50-10.00	0.50	0.620	3.20	41.0	3527.0	35.0	201.0	14.0
		Greenish-red, heterolithic, stockwork	49665	10.00-11.00	1.00	0.025	7.20	34.0		15.0	64.0	154.0
		Frs=5/m :Vns =30/m	49666	11.00-12.00	1.00	0.030		30.0	191.0		38.0	52.0
		Trace SI patches										
		Strong CL pervasive										
		Weak MS patches										
		Moderate MT disseminated										
		Moderate KS pervasive										
		Trace EP stockwork										
		Moderate CV patches										
		Weak QC stockwork										
		Moderate hematite stockwork zone within D.A.P. 0.68 to 8.61m., strong disseminated magnetite from 9.75 to 10.85m., otherwise absent. Lower contact=fault zone.										
<9.75-8.61>		Strong MT disseminated										
		Strong disseminated steel gray magnetite.										
16.33	19.05	Broken Core										
		Gouge										
		Strong broken core locally rubbly and irregular gouge seams to 3mm. within D.A.P. 0.68 to 8.61m., hematite stockwork zone within volcanics, weak limonite fracture fill and calcite leaching.										
19.05	21.34	volcaniclastics	49667	20.00-21.00	1.00	0.005		16.0	416.0		35.0	2.0
		Greenish-red, stockwork, heterolithic										
		Frs=15/m :Vns =60/m										
		Weak SI patches										
		Moderate CL pervasive										
		Weak MS patches										
		Moderate KS pervasive										
		Strong HE stockwork										
		Moderate QC stockwork										
		Hematite stockwork zone within volcanics, D.A.P. 16.33 to 19.05m. ALTERATION- strong pervasive with less stockwork hematite, weak patchy silica. Starting to look porphyritic in places, moderate pervasive chlorite, weak patchy light green sericite. Lower contact=E.O.H.										
<20.35-20.42>		Broken Core fracturing 35°										
		Gougy; rubbly broken core. Fractures surface at 35 degrees.										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-71

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-71	Date Completed:		Geotech by: MBW
LENGTH: 25.91	Core Diam: NQII		

Collar Location

Latitude:	2083.74
Departure:	1983.45
Elevation:	1416.25

SUMMARY

0.00-0.28	CASING
0.28-9.83	volcaniclastics
9.83-10.88	Semi-massive hematite
10.88-16.80	volcaniclastics
16.80-17.95	rubbly fault zone
17.95-25.91	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	88.00	-61.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.28	CASING Casing.										
0.28	9.83	volcaniclastics	49668	4.00-5.00	1.00	0.005		36.0	111.0		84.0	2.0
		Redish-green, heterolithic, stockwork	49669	5.00-6.00	1.00	0.010		33.0	182.0		74.0	
		contact 30°	49670	6.00-7.00	1.00	0.075		30.0	104.0		70.0	
		Frs=18/m :Vns =30/m	49671	7.00-8.00	1.00	0.090		45.0	220.0		50.0	2.0
		Trace SI patches	49672	8.00-9.00	1.00	0.010	1.60	47.0	2695.0		52.0	
		Strong CL pervasive	49673	9.00-9.83	0.83	0.005		31.0	275.0		55.0	4.0
		Moderate KS pervasive										
		Moderate HE stockwork										
		Moderate QC stockwork										
		Moderate hematite stockwork zone within heterlithic fragmented probable volcanics, 40% crystalline often oikiolitic, 60% lithic with fine grained ash matrix. ALTERATION- moderate stockwork and microfracture controlled hematite, strong pervasive chlorite, moderate irregular quartz/calcite stockwork. Lower contact=graduational at 30 degrees.										
<0.28-5.50>		Broken Core Weak broken core with irregular fracture orienatation, weak limonite fracture fill.										
9.83	10.88	Semi-massive hematite	49674	9.83-10.50	0.67	23.820		119.0	190.0	25.0	368.0	6.0
		Blackish-red, sheared	49675	10.50-10.88	0.38	0.205		85.0	67.0	70.0	285.0	6.0
		Frs=3/m										
		Weak SI patches										
		Strong CL pervasive										
		Trace MT pervasive										
		Intense HE SHEETED										
		Strong to intense sheeted hematite from 20 to 30 degrees, average 25 degrees, trace pervasive magnetite, weak patchy silica, strong pervasive chlorite, wek H zone? No visible sulphides or visible gold or specularite. Lower contact=indistinct.										
10.88	16.80	volcaniclastics	49676	10.88-11.50	0.62	0.120		103.0	102.0		175.0	
		Redish-green, heterolithic, stockwork	49677	11.50-12.00	0.50	0.425	0.40	35.0	1108.0		47.0	
		Frs=6/m :Vns =25/m	49678	12.00-13.00	1.00	0.115		23.0	364.0		29.0	
		Trace SI patches	49679	13.00-14.00	1.00	0.275		50.0	390.0		50.0	
		Strong CL pervasive										
		Moderate KS pervasive										
		Trace EP microveins										
		Moderate HE stockwork										
		Moderate QC stockwork										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Hematite stockwork zone within fragmented volcanics. D.A.P. 0.28 to 9.83m. Lower contact=fault zone. Quartz/calcite veins often with epidote.										
16.80	17.95	rubbly fault zone Oxidized gouge 60° Rubbly broken core within fragmental volcanics with gouge seams to 25cm. at 60 degrees, moderate bleaching, calcite leaching and limonite fracture fill.										
17.95	25.91	volcaniclastics Greenish-red, heterolithic, stockwork Frs=9/m :Vns =25/m Weak SI patches Strong CL pervasive Moderate KS pervasive Weak HE stockwork Moderate QC stockwork Fragment volcanics. D.A.P. 0.28 to 98.3m. with weak hematite stockwork, decreasing to near absent near lower contact. Lower contact=E.O.H.	49680 49681 49682 49683	20.00-21.00 21.00-22.00 22.00-23.00 23.00-24.00	1.00 1.00 1.00 1.00	0.025 0.010 0.020 0.020		35.0 34.0 37.0 38.0	49.0 107.0 127.0 103.0		56.0 59.0 74.0 69.0	
<21.50-21.65>		gouge gouge 15° Possibly moderate fault slip; 8mm. of gouge at 15 degrees.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-72

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-72	Date Completed:		Geotech by: MBW
LENGTH: 35.05	Core Diam: NQII		

Collar Location

Latitude:	2083.75
Departure:	1983.11
Elevation:	1416.16

S U M M A R Y

0.00-0.20	CASING
0.20-14.53	volcaniclastics
14.53-15.11	Semi-massive hematite
15.11-22.46	volcaniclastics *
22.46-22.91	massive hematite *
22.91-35.05	volcaniclastics **

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	88.00	-70.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.20	CASING Casing.										
0.20	14.53	volcaniclastics Greenish-red, stockwork, heterolithic qz-carb veining 60° Frs=10/m :Vns =40/m Weak SI patches Strong CL pervasive Moderate KS pervasive Trace EP microveins Moderate HE stockwork Weak CV stockwork Moderate QC stockwork Moderate hematite stockwork within heterolithic vaguely fragmental probable volcanics with 15% crystalline, generally oikiolitic, 85% lithic, tuffaceous or very fine grained crystalline, ash matrix. ALTERATION- strong pervasive chlorite, moderate hematite stockwork and microfracture controlled with good lisogang rings, weak patchy silica, likely strong pervasive K-spar, through volcanics often stain weakly. Lower contact=patchy, moderate quartz/calcite stockwork often with epidote, often at 60 degrees.	49685 49686 49687 49688	4.00-5.00 9.00-10.00 10.00-11.00 11.00-12.00	1.00 1.00 1.00 1.00	0.015 0.020 0.005 0.060		40.0 19.0 26.0 28.0	142.0 144.0 161.0 243.0		79.0 28.0 43.0 41.0	 2.0
<0.20-4.90>		Broken Core Weak broken core with weak limonite fracture fill.										
<9.15-10.55>		Moderate hematite stockwork, moderate patchy silica.										
14.53	15.11	Semi-massive hematite Blackish-red, sheared sheeting 40° Frs=2/m Moderate SI patches Moderate MT SHEETED Intense HE SHEETED Massive hematite +/- magnetite veins to 8cm., generally with patchy silica at 40 degrees, no visible sulphide or visible gold. Possible H zone splay.	49689	14.53-15.11	0.58	13.230	0.20	198.0	618.0	95.0	31.0	12.0
15.11	22.46	volcaniclastics Redish-green, stockwork, heterolithic contact 40°:qz-carb veining 60° Weak SI patches	49690 49691 49692 49693	15.11-16.00 16.00-16.72 16.72-17.33 17.33-18.00	0.89 0.72 0.61 0.67	0.600 0.020 0.030 0.020		47.0 35.0 69.0 28.0	376.0 102.0 797.0 765.0		80.0 92.0 89.0 55.0	16.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong CL pervasive	49694	21.00-22.46	1.46	0.040		50.0	228.0		73.0	4.0
		Moderate KS pervasive										
		Trace EP microveins										
		Moderate HE stockwork										
		Weak CV stockwork										
		Moderate QC stockwork										
		Moderate hematite stockwork zone within brecciated volcaniclastic. D.A.P. 0.20 to 14.53m.										
		<16.72-17.33> Weak MT disseminated										
		3 % chalcopyrite - disseminated										
		MINERALIZATION- 3% disseminated calcopyrite, 2% disseminated pyrite.										
		<16.72-17.33> VEINED & DISSEMINATED SULPHIDE										
		MINERALIZATION- 3% disseminated calcopyrite, 2% disseminated pyrite.										
		<20.70-21.25> Broken Core										
		Oxidized										
		fracturing 15°										
		Moderate broken core with moderate limonite fracture fill, fractures often at 15 degrees.										
22.46	22.91	massive hematite	49695	22.46-22.91	0.45	224.400	9.40	95.0	514.0	90.0	174.0	18.0
		Massive hematite/magnetite vein, irregular at 40 degrees, strong patchy silica. MINERALIZATION- trace pyrite, trace visible gold.										
		<22.46-22.91>MINERALIZATION- trace pyrite, trace visible gold.										
22.91	35.05	volcaniclastics	49696	22.91-24.00	1.09	0.880		173.0	99.0	60.0	143.0	
		Dark green, heterolithic	49697	28.00-29.00	1.00	0.205		31.0	66.0	35.0	49.0	8.0
		Frs=10/m :Vns =30/m	49698	33.00-34.00	1.00	0.040		37.0	92.0	25.0	56.0	6.0
		Trace SI pervasive	49699	34.00-35.05	1.05	0.035		32.0	131.0	10.0	68.0	14.0
		Intense CL pervasive										
		Moderate KS pervasive										
		Trace HE wispy										
		Weak PY patches										
		Moderate CV stockwork										
		Weak QC stockwork										
		Dark green fragmental heterolithic volcanic with 35% crystalline, generally oikiolitic, 65% lithic often with silicified fine grained fragments, very fine grained ask? matrix. ALTERATION- strong to intense pervasive chlorite, weak hematite stockwork near upper contact, absent by 28m., trace patchy silica, moderate										

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	irregular calcite +/- quartz stockwork. Lower contact=E.O.H.										
<22.91-23.50>	Moderate pervasive hematite, strong pervasive chlorite.										
<23.60-24.00>	Broken Core Moderate broken core with trace medium grained gouge.										
<28.10-28.85>	Intense MT patches MINERALIZATION- 5% patchy pyrite, generally with calcite.										
<28.10-28.85>	VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 5% patchy pyrite, generally with calcite.										
<28.85-31.55>	Broken Core Weak broken core with weak limonite fracture fill, irregular fracture orientation, weak calcite leaching.										
<33.35-35.05>	Moderate MT patches MINERALIZATION- 3% medium grained patchy pyrite with less disseminations.										
<33.35-35.05>	VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% medium grained patchy pyrite with less disseminated.										
(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-73

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-73	Date Completed:		Geotech by: MBW
LENGTH: 99.06	Core Diam: NQII		

Collar Location

Latitude:	2083.68
Departure:	1982.71
Elevation:	1415.80

SUMMARY

0.00-0.20	CASING
0.20-13.50	volcaniclastics
13.50-37.42	volcaniclastics **
37.42-60.50	Hornblende Feldspar xtalline ***
60.50-78.00	Hornblende Feldspar xtalline
78.00-99.06	Biotite Hbl Fdsp xtalline *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	101.00	-85.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.20	CASING Casing.										
0.20	13.50	volcaniclastics Redish-green, heterolithic, stockwork Frs=15/m :Vns =40/m Trace SI patches Strong CL pervasive Moderate KS pervasive Moderate HE stockwork Moderate QC stockwork Moderate to weak hematite stockwork zone within heterolithic fragmental probable volcaniclastic with 25% fragements, irregular crystalline, often oikiolitic, 75% lithic very fine grained crystalline or tuffaceous. Likely ash matrix. ALTERATION- moderate to weak stockwork hematite, decreasing towards lower contact, strong pervasive chlorite, weak local patchy silica, weak irregular quartz/calcite veining +/- epidote. Lower contact=graduational.	49700 49701	4.00-5.00 6.00-7.00	1.00 1.00	0.030 0.015		44.0 26.0	185.0 60.0		67.0 34.0	
<0.20-4.60>		Broken Core Weak broken core with weak limonite fracture fill, likely due to surficial weathering.										
<5.90-7.10>		Moderate SI selvages Strong HE stockwork Strong hematite stockwork with moderate silica as patchy and selvages.										
13.50	37.42	volcaniclastics Dark green, heterolithic Frs=15/m :Vns =40/m Trace SI patches Intense CL pervasive Strong KS pervasive Trace HE wispy Weak PY patches Moderate QC microveins Dark green heterolithic fragmental probably volcaniclastics with 45% crystalline often oikiolitic, tuffaceous very fine grained crystalline. Likely ash matrix. ALTERATION- strong to intense pervasive, locally sheeted chlorite, likely moderate to strong pervasive K-spar, trace patchy silica, moderate irregular calcite +/- quartz stockwork. Local patchy	49702 49703 49704 49705 49706 49707 49708 49709 49710 49711 49712 49713	13.00-14.00 14.00-15.00 19.00-20.00 24.00-25.00 25.00-26.00 26.00-27.00 27.00-28.00 28.00-29.00 29.00-30.00 34.00-35.00 35.00-36.00 36.00-37.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.015 0.010 0.030 0.400 0.005 0.010 0.030 0.005 0.010 0.010 0.060 0.165	 0.20 0.20	19.0 14.0 43.0 40.0 39.0 42.0 31.0 41.0 46.0 43.0 58.0 28.0	261.0 61.0 101.0 144.0 100.0 73.0 32.0 73.0 98.0 58.0 170.0 118.0	15.0 10.0 30.0 15.0 10.0 40.0 30.0	42.0 39.0 59.0 75.0 94.0 99.0 93.0 98.0 83.0 70.0 120.0 500.0	6.0 6.0 12.0 20.0 22.0 12.0 4.0 6.0 6.0 12.0 14.0

FROM TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	weak hematite stockwork. Otherwise absent. Lower contact=brecciated and broken core.										
<15.50-18.40>	Chlorite Streaming Bleached sheeting 30° Strong CL SHEETED Strong chlorite sheeting, generally irregular, but often at 30 degrees, weak to moderate bleaching and calcite leaching.										
<21.90-22.00>	gouge gouge 35° 4cm. gouge seam at 35 degrees. May be significant structure.										
<22.00-24.30>	Broken Core Oxidized, bleached Weak broken core with moderate limonite fracture fill, weak bleaching and calcite leaching.										
<25.60-27.00>	Strong MT patches MINERALIZATION- 4% patchy fine grained pyrite with trace disseminated hematite.										
<25.60-27.00>	VEINED & DISSEMINATED SULPHIDE Trace HE disseminated MINERALIZATION- 4% patchy fine grained pyrite with trace disseminated hematite.										
<27.75-30.30>	sheeting 20° Weak HE wispy Weak wispy hematite, often sheeted at 20 degrees.										
<34.00-36.00>	Strong MT patches MINERALIZATION- 4% patchy medium grained pyrite often with calcite and chlorite.										
<34.00-36.00>	VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 4% patchy medium grained pyrite often with calcite and chlorite.										
<35.70-37.42>	Broken Core Bleached Weak mottled broken core with moderate bleaching and limonite fracture fill, moderate patchy silica alteration of fragments.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
37.42	60.50	Hornblende Feldspar xtalline	49714	37.00-38.00	1.00	0.105	0.20	21.0	178.0	5.0	224.0	10.0
		Fine grained, green, massive, crystalline	49715	38.00-39.00	1.00	0.035		39.0	51.0	40.0	176.0	8.0
		Frs=5/m :Vns =15/m	49716	39.00-40.00	1.00	0.050		19.0	80.0	55.0	259.0	12.0
		Trace SI patches	49717	40.00-41.00	1.00	0.060	0.20	22.0	104.0	30.0	109.0	18.0
		Strong CL pervasive	49718	41.00-42.00	1.00	0.050	0.40	22.0	301.0	25.0	152.0	16.0
		Strong KS pervasive	49719	42.00-43.00	1.00	0.020		21.0	192.0	15.0	125.0	16.0
		Weak PY patches	49720	43.00-44.00	1.00	0.010		20.0	123.0	10.0	86.0	14.0
		Weak QC patches	49721	44.00-45.00	1.00	0.030		28.0	158.0		109.0	12.0
		Medium to dark green HFxl with 25% light to dark green	49722	45.00-46.00	1.00	0.025		20.0	201.0	15.0	66.0	6.0
		subhedral hornblende needles to 2mm. very fine grained	49723	46.00-47.00	1.00	0.095		15.0	149.0	30.0	62.0	2.0
		matrix. ALTERATION- strong to moderate pervasive	49725	52.00-53.00	1.00	0.005		12.0	107.0	5.0	78.0	12.0
		chlorite, likely strong pervasive K-spar, weak to	49726	53.00-54.00	1.00	0.005		12.0	71.0		63.0	
		absent patchy silica, trace to absent disseminated	49727	54.00-55.00	1.00	0.005		15.0	61.0		58.0	14.0
		hematite, weak irregular quartz/calcite stockwork.	49728	55.00-56.00	1.00	0.005		20.0	91.0	25.0	51.0	12.0
		Lower contact= graduational.	49729	56.00-57.00	1.00	0.005		18.0	106.0	20.0	67.0	12.0
	<39.50-46.50>	Intense MT patches										
		MINERALIZATION- 5% fine grained to medium grained										
		patchy pyrite, generally with calcite and hematite,										
		trace calcopyrite in quartz/calcite veins.										
	<39.50-46.50>	VEINED & DISSEMINATED SULPHIDE										
		Weak SI selvages										
		Trace HE disseminated										
		Weak QC patches										
		MINERALIZATION- 5% fine grained to medium grained										
		patchy pyrite, generally with calcite and hematite,										
		trace calcopyrite in quartz/calcite veins.										
	<49.18-49.40>	Broken Core										
		Oxidized, bleached										
		fracturing 40°										
		Weak broken core with moderate bleaching and limonite										
		fracture fill, fractures commonly at 45 degrees.										
	<52.30-54.10>	Weak MT disseminated										
		MINERALIZATION- 2% fine grained to medium grained										
		disseminated pyrite.										
	<52.30-54.10>	Chlorite Streaming										
		Strong CL SHEETED										
		Trace HE wispy										
		Strong irregular braided chlorite streaming, trace										
		wispy hematite. MINERALIZATION- 2% fine grained to										
		medium grained disseminated pyrite.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<54.10-59.60>		Moderate MT vein	49730	57.00-58.00	1.00	0.010		18.0	101.0	30.0	61.0	16.0
		MINERALIZATION- 3% pyrite as medium grained veins to 1cm., irregular orientation with less granular patches and disseminations. Trace calcopyrite in quartz/calcite veining, weak silica as chlorite/pyrite irregular stringer selvages.	49731	58.00-59.00	1.00	0.005		12.0	60.0	25.0	36.0	40.0
<54.10-59.60>		VEINED & DISSEMINATED SULPHIDE Weak SI selvages										
		MINERALIZATION- 3% pyrite as medium grained veins to 1cm., irregular orientation with less granular patches and disseminations. Trace calcopyrite in quartz/calcite veining, weak silica as chlorite/pyrite irregular stringer selvages.										
60.50	78.00	Hornblende Feldspar xtalline	49732	59.00-60.00	1.00	0.010		14.0	77.0	45.0	43.0	26.0
		Fine grained, redish-green, crystalline, stockwork	49733	63.00-64.00	1.00	0.005		15.0	77.0		39.0	8.0
		Frs=5/m :Vns =35/m	49734	66.00-67.00	1.00	0.015		16.0	102.0		37.0	10.0
		Weak SI patches	49735	67.00-68.00	1.00	0.020		23.0	107.0		37.0	30.0
		Moderate CL pervasive	49736	68.00-69.00	1.00	0.010		14.0	116.0		44.0	12.0
		Weak MS pervasive	49737	73.00-74.00	1.00	0.005		17.0	89.0		90.0	8.0
		Strong KS pervasive										
		Moderate HE stockwork										
		Trace PY disseminated										
		Weak CV microveins										
		Weak QC microveins										
		Moderate hematite stockwork zone within medium to dark green HFxl with 20%, light to dark green subhedral hornblende needles to 2mm., commonly cryptic, very fine grained to aphanitic matrix. ALTERATION- moderate to strong pervasive locally sheeted quartz, moderate stockwork and microfracture controlled hematite, weak locally patchy silica, weak irregular quartz/calcite veining, weak to moderate patchy apple green sericite. Lower contact=indistinct.										
<65.50-65.96>		Broken Core										
		Rubbly angular broken core, irregular fracture orientation, likely not major structure.										
<67.75-71.40>		Chlorite Streaming Strong CL SHEETED										
		Strong irregular greenish black braided chlorite. No consistant orientation.										
78.00	99.06	Biotite Hbl Fdsp xtalline	49738	80.00-81.00	1.00	0.005		12.0	23.0		40.0	2.0
		Greenish-red, crystalline, stockwork	49739	88.00-89.00	1.00	0.010		11.0	40.0	5.0	260.0	6.0

FROM TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
	qz-carb veining 45°	49740	90.00-91.00	1.00	0.005		14.0	64.0		206.0	4.0
	Frs=5/m :Vns =50/m	49741	97.00-98.00	1.00	0.005		7.0	17.0	15.0	175.0	10.0
	Weak SI patches										
	Moderate CL pervasive										
	Moderate MS pervasive										
	Strong KS pervasive										
	Strong HE stockwork										
	Weak CV microveins										
	Moderate QC microveins										
	Strong hematite stockwork zone within medium green streaked red BHFl with 5% light gray platy biotite phenos euhedral to 4mm., 25% subhedral light green hornblende phenos to 2mm., very fine grained to aphanitic matrix. ALTERATION- moderate to strong pervasive chlorite, moderate apple green sericite, strong hematite stockwork with less pervasive and microfracture controlled, moderate quartz/calcite veining at 45 degrees, 20 3mm. veins per meter, weak local patchy silica, likely strong pervasive K-spar. Lower contact=E.O.H.										
<97.30-97.75>	Moderate MT disseminated MINERALIZATION- 3% medium grained disseminated pyrite.										
<97.30-97.75>	VEINED & DISSEMINATED SULPHIDE MINERALIZATION- 3% medium grained disseminated pyrite.										
<97.75-99.06>	Moderate CL patches Moderate patchy silica.										
(eoh)											

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-74

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-74	Date Completed:		Geotech by: MBW
LENGTH: 16.46	Core Diam: NQII		

Collar Location

Latitude:	2092.37
Departure:	1985.36
Elevation:	1419.02

S U M M A R Y

0.00-2.50	volcaniclastics
2.50-3.93	Semi-massive hematite **
3.93-16.46	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	88.00	-43.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	2.50	volcaniclastics	49742	1.00-2.00	1.00	0.005		45.0	701.0		105.0	12.0
		Dark green, heterolithic, stockwork	49743	2.00-2.50	0.50	0.010		39.0	854.0		106.0	12.0
		Frs=80/m :Vns =35/m										
		Intense CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Moderate QC patches										
		Intensely chloritized moderate hematite stockwork zone within probable fragmental volcanics, 10% crystalline oikiolitic, 70% probable lithic, difficult to distinguish due to intense alteration. ALTERATION- intense black to green chlorite, moderate irregular stockwork and microfracture controlled hematite, moderate patchy quartz/calcite, probable strong pervasive K-spar. Lower contact=broken core.										
2.50	3.93	Semi-massive hematite	49744	2.50-3.00	0.50	0.010		34.0	122.0		118.0	10.0
		Blackish-red, veined	49745	3.00-3.50	0.50	18.230	0.60	246.0	131.0		601.0	24.0
		Frs=5/m :Vns =30/m	49746	3.50-3.93	0.43	25.320	2.00	123.0	281.0	15.0	499.0	32.0
		Moderate SI patches										
		Intense CL pervasive										
		Weak MT pervasive										
		Intense HE vein										
		Weak SE microveins										
		Weak QC microveins										
		Reddish greenish black H zone with massive hematite and much less magnetite veins to 18cm., often at 50 degrees. ALTERATION- intense veined and sheeted hematite, intense black green chlorite, weak pervasive magnetite, with specularite within irregular quartz/calcite veining, moderate patchy silica. Trace visible gold at 3.35m. MINERALIZATION- trace wispy calcopyrite.										
<2.50-3.93>		.2% chalcopyrite - wispy										
		MINERALIZATION- trace wispy calcopyrite.										
<3.30-3.48>		MINERALIZATION- trace visible gold.										
<3.30-3.48>		hematite vein										
		Strong SI patches										
		Moderate EP pervasive										
		Intense HE vein										
		Massive hematite with less magnetite and patchy silica vein, irregular oricntation. MINERALIZATION- trace visible gold.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<3.79-3.87>		vein 50° Massive hematite/magnetite vein at 50 degrees.										
3.93	16.46	volcaniclastics Redish-green, stockwork, heterolithic Frs=5/m :Vns =35/m Weak SI patches Moderate CL pervasive Weak MS patches Strong KS pervasive Trace EP patches Strong HE stockwork Moderate QC stockwork Medium green to greenish gray streaked red hematite stockwork zone within probable volcanis, with 15% massive lithic or fine grained crystalline, 5% crystalline oikiolitic. ALTERATION- strong stockwork microfracture controlled hematite with good lisogang rings, moderate pervasive chlorite, weak patchy silica, moderate irregular quartz/calcite stockwork, trace patchy epidote. Lower contact=E.O.H.	49747 49748 49749 49750 49751 49752 49753 49754	3.93-5.00 5.00-6.00 6.00-7.00 7.00-8.00 8.00-9.00 9.00-10.00 10.00-11.00 15.50-16.46	1.07 1.00 1.00 1.00 1.00 1.00 1.00 0.96	0.050 0.030 0.440 0.055 0.115 0.005 0.115 0.005	0.60	45.0 32.0 52.0 20.0 25.0 28.0 19.0 28.0	794.0 109.0 87.0 13.0 108.0 304.0 222.0 38.0		140.0 46.0 53.0 28.0 29.0 47.0 46.0 170.0	12.0 14.0 10.0 2.0 4.0 6.0 6.0 12.0
<6.55-8.00>		spec/calcite/chlorite vein microveins 50° Frs=5/m Specularite/calcite/quartz +/- chlorite veins/tension fractures commonly at 50 degrees, 5 per meter, average 6mm.										
<15.46-16.46>		Chlorite Streaming sheeting 45° Strong CL SHEETED Moderate to strong pervasive and sheeted chlorite at 45 degrees.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-75

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-75	Date Completed:		Geotech by: MBW
LENGTH: 21.64	Core Diam: NQII		

Collar Location

Latitude:	2092.30
Departure:	1983.35
Elevation:	1420.27

S U M M A R Y

0.00-5.09	volcaniclastics
5.09-7.35	Semi-massive hematite
7.35-16.90	volcaniclastics
16.90-20.75	Broken Core
20.75-21.64	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	92.00	-54.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	5.09	volcaniclastics	49755	4.00-5.00	1.00	0.005		38.0	961.0		80.0	12.0
		Redish-green, heterolithic, stockwork										
		Frs=9/m :Vns =25/m										
		Weak SI patches										
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Weak CV microveins										
		Moderate QC microveins										
		Moderate hematite stockwork zone within medium to dark green streaked red heterolithic fragmental probable volcanic with 15% crystalline, generally oikiolitic irregular fragments, 85% fine grained granular lithic, tuffaceous or fine grained crystalline. ALTERATION- strong pervasive chlorite, moderate stockwork hematite, weak local patchy silica, moderate irregular quartz/calcite stockwork. Lower contact=distinct, irregular.										
<3.00-3.80>		Broken Core										
		Weak to moderate subangular broken core with weak limonite fracture fill, likely surficial weathering, irregular fracture orientation.										
5.09	7.35	Semi-massive hematite	49756	5.00-5.50	0.50	0.050	2.00	36.0	2228.0		103.0	8.0
		Blackish-red, veined, sheared	49757	5.50-6.00	0.50	8.010		185.0	182.0		286.0	18.0
		vein 45°:vein 70°	49758	6.00-6.50	0.50	31.420	1.80	214.0	186.0	35.0	384.0	14.0
		Frs=4/m	49759	6.50-7.00	0.50	0.905		135.0	92.0		426.0	18.0
		Intense CL pervasive										
		Weak MT vein										
		Trace EP microveins										
		Intense HE vein										
		Trace SE microveins										
		Weak QC microveins										
		H zone within probable fragmental volcanics with massive hematite/silica veins to 15cm., from 45 to 70 degrees. ALTERATION- intense sheeted to veined hematite, trace pervasive magnetite, intense pervasive black green chlorite, moderate veined silica, weak irregular quartz/calcite +/- epidote stockwork, trace specularite within quartz/calcite veins. No observed sulphides or visible gold.										
<5.60-5.75>		hematite vein										
		vein 70°										
		12cm. massive hematite/silica/magnetite vein at 70										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		degrees.										
<5.91-6.02>		vein 45°										
		10cm. hematite/silica with less specularite vein at 45 degrees.										
<6.30-6.38>		Semi-massive hematite										
		sheeting 35°										
		Intense HE SHEETED										
		Hematite sheeting at 35 degrees with less silica.										
<6.42-6.49>		hematite vein										
		vein 70°										
		6cm. hematite/silica vein at 70 degrees.										
<7.12-7.20>		vein 70°										
		3 1.2cm. hematite/magnetite veins at 70 degrees.										
7.35	16.90	volcaniclastics	49760	7.00-7.50	0.50	0.375		51.0	120.0	5.0	135.0	18.0
		Greenish-red, heterolithic, stockwork	49761	7.50-8.00	0.50	0.010		34.0	85.0		54.0	16.0
		Frs=8/m :Vns =20/m	49762	8.00-9.00	1.00	0.005		36.0	79.0		41.0	14.0
		Moderate CL pervasive	49763	9.00-10.00	1.00	0.010		38.0	138.0		44.0	10.0
		Strong KS pervasive	49764	11.50-12.00	0.50	5.830		87.0	422.0		61.0	12.0
		Strong HE stockwork	49765	15.00-16.00	1.00	0.025		29.0	110.0		55.0	6.0
		Moderate CV stockwork										
		Strong QC stockwork										
		Strong hematite stockwork zone within fragmental volcanics. D.A.P. 0.0 to 5.09m., strong stockwork hematite, trace patchy epidote.										
16.90	20.75	Broken Core	49766	18.00-19.00	1.00	0.080		47.0	118.0		81.0	14.0
		Green, bleached										
		fracturing 50°:contact 45°										
		:Vns =8/m										
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate QC stockwork										
		Rubbly patches of broken core within medium to dark green weakly bleached probable fragmental volcanics with strong pervasive chlorite, trace wispy hematite, weak limonite fracture fill, weak quartz/calcite stockwork, fractures commonly at 50 degrees. Lower contact=8cm. quartz/calcite/ chlorite vein at 45 degrees.										
20.75	21.64	volcaniclastics										
		Redish-green, heterolithic, stockwork										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Frs=3/m :Vns =35/m										
		Weak SI patches										
		Strong CL pervasive										
		Weak MS patches										
		Strong KS pervasive										
		Moderate HE stockwork										
		Moderate CV stockwork										
		Moderate QC stockwork										
		Moderate hematite stockwork zone within probable										
		fragmental volcanics, D.A.P. 0.0 to 5.09m. Lower										
		contact=										
		E.O.H.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-76

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-76	Date Completed:		Geotech by: MBW
LENGTH: 25.91	Core Diam: NQII		

Collar Location

Latitude:	2092.37
Departure:	1982.59
Elevation:	1420.48

S U M M A R Y

0.00-6.40	volcaniclastics
6.40-10.59	Semi-massive hematite *
10.59-24.99	volcaniclastics
24.99-25.91	Hornblende Feldspar xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	92.00	-65.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	6.40	volcaniclastics										
		Redish-green, stockwork, heterolithic										
		contact 45°										
		Frs=8/m :Vns =35/m										
		Weak SI patches										
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Moderate CV stockwork										
		Moderate QC stockwork										
		Medium to dark green streaked red probable fragmental volcanic with irregular or indistinct fragments, 20% crystalline usually oikiolitic, 0% lithic, tuffaceous (massive) or fine grained crystalline within ash matrix? ALTERATION- strong to intense pervasive dark green chlorite, moderate irregular stockwork hematite, weak patchy silica, moderate irregular quartz/calcite stockwork. Lower contact=sharp at 45 degrees.										
<1.40-3.60>		Broken Core										
		Weak broken core with weak limonite fracture fill, likely due to surficial weathering.										
6.40	10.59	Semi-massive hematite	49767	6.00-6.50	0.50	0.160	1.40	29.0	2057.0		41.0	
		Dark red, veined	49768	6.50-7.00	0.50	3.420		25.0	157.0		45.0	
		vein 35°	49769	7.00-7.50	0.50	11.420	0.40	73.0	161.0	25.0	81.0	4.0
		Moderate SI patches	49770	7.50-8.00	0.50	21.840	0.80	361.0	179.0	45.0	197.0	6.0
		Intense CL pervasive	49771	8.00-8.50	0.50	11.300	0.80	390.0	303.0	65.0	303.0	6.0
		Moderate CB patches	49772	8.50-9.00	0.50	0.240		91.0	101.0	10.0	254.0	4.0
		Intense HE vein	49773	9.00-9.50	0.50	0.835		58.0	100.0	15.0	79.0	4.0
		Trace SE microveins	49774	9.50-10.00	0.50	0.280		30.0	75.0	5.0	48.0	4.0
		Moderate QC stockwork	49775	10.00-10.50	0.50	0.645		25.0	51.0		35.0	
		Moderate H zone with massive hematite/silica veins to 16cm. within fragmental volcanics. ALTERATION- intense pervasive black green chlorite, moderate patchy silica, moderate to strong patchy carbonate (iron-carbonate?) no apparent magnetite, trace visible gold at 7.6m.										
<6.40-6.55>		hematite vein										
		Irregular hematite vein with less quartz and calcite.										
<7.35-7.60>		MINERALIZATION- trace visible gold, trace specularite within quartz/calcite veins.										
<7.35-7.60>		hematite vein										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		vein 35°..										
		Moderate SE microveins										
		16cm. hematite/iron-carbonate/silica vein at 35 degrees. MINERALIZATION- trace visible gold, trace specularite within quartz/calcite veins.										
<7.99-8.09>		Irregular massive hematite vein.										
10.59	24.99	volcaniclastics	49776	10.50-11.00	0.50	0.290		20.0	53.0		26.0	
		Redish-green, stockwork, heterolithic	49777	14.00-15.00	1.00	0.010		35.0	266.0		49.0	
		qz-carb veining 50°	49778	19.00-20.00	1.00	0.005		36.0	95.0		70.0	
		Weak SI patches										
		Strong CL pervasive										
		Strong KS pervasive										
		Trace EP microveins										
		Strong HE stockwork										
		Moderate CV stockwork										
		Moderate QC microveins										
		Hematite stockwork zone. D.A.P. 0.0 to 6.40m. within fragmental volcanics, trace epidote within quartz/calcite veins at 50 degrees, strong stockwork and microfracture controlled hematite with good lisogang rings. Lower contact=broken core.										
<17.50-18.10>		Broken Core										
		Bleached										
		Weak broken core and weak bleaching and calcite leaching with strong irregular chlorite streaming, weak wispy chlorite, similar to broken core and CL96-75.										
<22.67-22.85>		Oxidized										
		Strong angular rubble with moderate limonite fracture fill.										
24.99	25.91	Hornblende Feldspar xtalline	49779	24.00-25.91	1.91	0.010		9.0	33.0		56.0	
		Greenish-red, broken, Brecciated										
		Moderate SI patches										
		Moderate MS patches										
		Strong HE SHEETED										
		Strong to moderate rubbly broken core overprinted, shattered, brecciated HFxl with up to 20% cream hornblende needles to 1.5mm., aphanitic matrix, angular fragments to 1.5cm. ALTERATION- strong sheeted and pervasive hematite, moderate patchy silica and apple green sericite.										
(eoh)												

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-77

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-77	Date Completed:		Geotech by: MBW
LENGTH: 33.53	Core Diam: NQII		

Collar Location

Latitude:	2092.37
Departure:	1982.09
Elevation:	1420.58

S U M M A R Y

0.00-0.32	CASING
0.32-10.00	volcaniclastics
10.00-11.20	massive hematite *
11.20-16.07	volcaniclastics
16.07-28.00	volcaniclastics
28.00-30.00	Broken Core
30.00-33.53	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	93.00	-75.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.32	CASING Casing.										
0.32	10.00	volcaniclastics Redish-green, stockwork, heterolithic Frs=15/m :Vns =35/m Trace SI patches Strong CL pervasive Strong KS pervasive Moderate HE stockwork Weak CV stockwork Moderate QC stockwork Moderate hematite stockwork within heterolithic brecciated dark green streaked red probable volcanic with 15% indistinct crystalline, generally oikiolitic fragments, 85% lithic, tuffaceous of fine grained crystalline, likely ash matrix. ALTERATION- moderate hematite stockwork weak, strong to intense pervasive chlorite, moderate irregular quartz/calcite stockwork, hematite increasing towards lower contact.	49780 49781 49782	8.00-8.50 8.50-9.00 9.00-10.00	0.50 0.50 1.00	0.015 0.015 1.070	4.20 1.00	37.0 28.0 38.0	5380.0 1302.0 168.0	10.0 10.0	44.0 45.0 63.0	2.0
<0.60-4.50>		Broken Core Weak angular broken core with weak limonite fracture fill; likely due to surficial weathering.										
<8.65-10.00>		sheeting 45° Strong CL SHEETED Strong HE SHEETED										
10.00	11.20	massive hematite Veined contact 40° Frs=4/m :Vns =10/m Moderate SI patches Weak MT pervasive Intense HE vein Trace SE microveins Weak QC microveins Massive hematite vein at 40 to 45 degrees with moderate patchy silica +/- specularite and calcite, weak local pervasive magnetite. MINERALIZATION- trace visible gold at 10.9m. Lower contact=sharp at 40 degrees. H zone.	49783 49784	10.00-10.50 10.50-11.20	0.50 0.70	31.720 44.600	1.40 1.80	82.0 48.0	240.0 252.0	85.0 80.0	26.0 35.0	6.0 10.0
<10.00-11.20>		MINERALIZATION- trace visible gold at 10.9m. Lower contact=sharp at 40 degrees. H zone.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
11.20	16.07	volcaniclastics	49785	11.20-12.00	0.80	0.145		135.0	114.0	40.0	109.0	
		Greenish-red, stockwork, veined	49786	12.00-13.00	1.00	0.130		89.0	110.0	125.0	60.0	6.0
		Frs=4/m :Vns =20/m	49787	13.00-13.50	0.50	0.150		108.0	69.0	20.0	109.0	
		Weak SI patches	49788	13.50-14.00	0.50	1.460		127.0	93.0	25.0	67.0	2.0
		Intense CL pervasive	49789	14.00-15.00	1.00	2.860		54.0	217.0	10.0	57.0	
		Weak MS patches	49790	15.00-15.60	0.60	0.140		122.0	580.0	5.0	38.0	
		Trace MT vein	49791	15.60-16.07	0.47	31.640	0.60	850.0	470.0	375.0	30.0	2.0
		Strong KS pervasive										
		Strong HE vein										
		Moderate QC microveins										
		H zone halo within fragmental volcanic with intense pervasive black green chlorite, strong hematite stockwork and veins to 10cm., 1 per meter. Weak patchy sericite, silica. Lower contact=sharp, irregular. Veins generally irregular orientation with local weak magnetite, weak irregular quartz/calcite +/- chlorite veins.										
	<12.60-12.75>	Semi-massive hematite										
		Irregular massive hematite patch, trace magnetite.										
	<13.55-14.00>	Irregular massive to semi-massive pyrite patch.										
	<15.80-15.98>	hematite vein										
		vein 35°										
		14cm. massive hematite/magnetite vein at 35 degrees.										
16.07	28.00	volcaniclastics	49792	16.07-17.00	0.93	0.110		118.0	161.0	15.0	37.0	
		Dark green, stockwork, heterolithic	49793	17.00-18.00	1.00	0.950		38.0	81.0		35.0	
		Frs=5/m :Vns =25/m	49795	26.00-27.00	1.00	0.010		33.0	94.0	40.0	62.0	
		Trace SI patches										
		Intense CL pervasive										
		Strong KS pervasive										
		Trace EP microveins										
		Moderate HE stockwork										
		Trace CV microveins										
		Moderate QC microveins										
		Heterolithic fragmental volcanic with moderate hematite stockwork. D.A.P. 0.32 to 10.0m. Lower contact=fault zone. Intense pervasive chlorite.										
	<24.60-25.00>	Broken Core										
		fracturing 30°										
		Moderate broken core and calcite leaching, weak limonite frracture fill, fractures commonly at 30 degrees.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<28.00-30.00>		gouge 45° Intense CL pervasive Moderate QC microveins Moderate to strong subangular broken core within fragmental volcanic, gougy slip phenos to 8mm. from 40 to 50 degrees, intense to bleached moderate pervasive sheeted irregularly chlorite, no observed hematite.										
30.00	33.53	volcaniclastics Dark green, stockwork, heterolithic Intense CL pervasive Strong KS pervasive Weak HE stockwork Moderate CV stockwork Moderate QC stockwork Heterolithic fragmental volcanic. D.A.P. 0.32 to 10.0m. Lower contact=E.O.H.	49796	30.00-31.00	1.00	0.010		29.0	125.0	50.0	47.0	10.0
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-78

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-78	Date Completed:		Geotech by: MBW
LENGTH: 41.15	Core Diam: NQII		

Collar Location

Latitude:	2092.38
Departure:	1981.70
Elevation:	1420.71

SUMMARY

0.00-0.18	CASING
0.18-17.80	volcaniclastics
17.80-18.50	Semi-massive hematite
18.50-29.50	volcaniclastics
29.50-30.18	Broken Core
30.18-41.15	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	99.00	-88.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.18	CASING Casing.										
0.18	17.80	volcaniclastics	49813	4.00-5.00	1.00	0.015		45.0	200.0		64.0	
		Redish-green, heterolithic, stockwork	49814	10.00-11.00	1.00	0.005		41.0	154.0	5.0	94.0	
		Frs=12/m :Vns =30/m	59325	11.00-12.00	1.00	0.005		31.0	94.0	5.0	98.0	10.0
		Trace SI patches	59326	12.00-13.00	1.00	0.005		28.0	44.0	10.0	74.0	6.0
		Strong CL pervasive	59327	13.00-14.00	1.00	0.010		21.0	86.0	20.0	34.0	10.0
		Trace MS patches	59328	14.00-15.00	1.00	0.010		22.0	36.0	5.0	34.0	8.0
		Weak EP patches	59329	15.00-16.00	1.00	0.005		28.0	100.0		35.0	20.0
		Moderate HE stockwork	49815	16.00-17.00	1.00	0.005		47.0	101.0		39.0	36.0
		Moderate CV patches	49816	17.00-17.80	0.80	0.055		68.0	339.0	5.0	60.0	12.0
		Moderate QC stockwork										
		Dark green streaked red moderate hematite stockwork zone within heterolithic fragmental with 30% crystalline generally oikiolithic, with 70% lithic, or fine grained undifferentiated tuffaceous or very fine grained crystalline, likely ash matrix. ALTERATION- strong pervasive chlorite, weak patchy epidote, moderate stockwork hematite with less disseminations, moderate irregular quartz/calcite and calcite stockwork. Lower contact stockwork=sharp, irregular.										
	<9.50-10.45>	Moderate EP patches Moderate patchy epidote; looks like selective alteration of phenos.										
	<13.30-14.15>	Broken Core Bleached, oxidized Weak to moderate broken core with moderate bleaching and limonite fracture fill.										
17.80	18.50	Semi-massive hematite	49817	17.80-18.11	0.31	65.700	2.20	400.0	51.0	300.0	124.0	4.0
		Redish-black, veined	49818	18.11-18.50	0.39	0.495		523.0	57.0	355.0	167.0	
		vein 30°										
		Frs=4/m :Vns =35/m										
		Weak SI patches										
		Intense CL pervasive										
		Intense HE vein										
		Moderate QC macroveins										
		Weak H zone with one 1 to 8cm. massive hematite vein at 30 degrees, otherwise strong pervasive hematite with intense black green pervasive chlorite, one 3cm. quartz/calcite/chlorite/hematite vein ribboned at 30 degrees. Lower contact=graduational, weak patchy silica.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
18.50	29.50	volcaniclastics	49819	18.50-19.00	0.50	0.170		239.0	106.0	25.0	112.0	
		Dark green, heterolithic, stockwork	49820	19.00-19.50	0.50	1.690		243.0	104.0	170.0	61.0	2.0
		qz-carb veining 40°	49821	19.50-20.00	0.50	0.040		224.0	110.0	120.0	82.0	4.0
		Frs=12/m :Vns =20/m	49822	20.00-21.00	1.00	0.205		130.0	68.0	30.0	74.0	
		Strong CL pervasive	49823	21.00-21.50	0.50	0.020		145.0	88.0	55.0	67.0	
		Strong KS pervasive	49824	21.50-22.00	0.50	12.740	1.60	187.0	523.0	115.0	84.0	16.0
		Weak HE patches	49825	22.00-23.00	1.00	0.645		76.0	201.0	35.0	76.0	6.0
		Trace PY disseminated	59330	23.00-24.00	1.00	0.020		33.0	95.0	35.0	46.0	8.0
		Moderate QC microveins	59331	24.00-25.00	1.00	0.010		41.0	96.0	40.0	66.0	8.0
		Dark green streaked red near upper contact,	59332	25.00-26.00	1.00	0.005		36.0	77.0	45.0	82.0	6.0
		heterolithic fragmental volcaniclastic with H zone	59333	26.00-27.00	1.00	0.010		34.0	95.0	55.0	82.0	6.0
		halo from upper contact to 22.0, 30% porphyritic often	59334	27.00-28.00	1.00	0.030		36.0	89.0	50.0	109.0	8.0
		oikiolitic indistinct fragments, some crystals look	49826	28.00-29.00	1.00	0.055	0.20	62.0	105.0	45.0	79.0	4.0
		like augites. ALTERATION- intense pervasive chlorite,										
		moderate to absent patchy hematite, moderate										
		quartz/calcite veining often at 40 degrees; probable										
		tension fractures. Lower contact=bleaching around										
		fault zone.										
	<18.50-22.00>	Chlorite Streaming										
		sheeting 20°										
		Intense CL SHEETED										
		Moderate PY patches										
		Intense sheeted chlorite, generally at shallow angles										
		to core axis, average at 20 degrees, moderate patchy										
		hematite generally with calcite or more semi-massive										
		with silica (21.70 to 22.0m.) H zone halo.										
29.50	30.18	Broken Core										
		Strong subangular broken core with moderate bleaching										
		and limonite fracture fill, strong calcite leaching,										
		fractures irregular, but generally at low angles to										
		core axis.										
30.18	41.15	volcaniclastics	49827	30.18-31.00	0.82	0.025		39.0	85.0	40.0	71.0	4.0
		Green, heterolithic										
		Frs=15/m :Vns =12/m										
		Trace SI patches										
		Intense CL pervasive										
		Strong KS pervasive										
		Moderate CV stockwork										
		Moderate QC stockwork										
		Strongly chloritized heterolithic fragmental volcanic.										
		D.A.P. 18.50 to 29.50m. Absent hematite, intense										
		pervasive to sheeted chlorite.										

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<33.60-	41.15>	gouge 40°:fracturing 40°	49828	34.00-35.00	1.00	0.015		35.0	98.0		56.0	4.0
		:Vns =15/m	49829	39.00-40.00	1.00	0.005		43.0	69.0	5.0	45.0	
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate CV stockwork										
		Moderate QC stockwork										
		Strongly chloritized dark green heterolithic fragmental volcanic. D.A.P. 18.50 to 41.15m. overprinted by moderate to strong broken core and several gougy seams, gouge and fractures commonly at 40 degrees. ALTERATION- strong pervasive chlorite, K-spar moderate irregular stockwork quartz/calcite, weak limonite fracture fill and local bleaching. Lower contact=E.O.H.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-79

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: RJM
DRILL HOLE: CL96-79	Date Completed:		Geotech by: MBW
LENGTH: 30.48	Core Diam: NQII		

Collar Location

Latitude:	2092.37
Departure:	1981.85
Elevation:	1420.65

S U M M A R Y

0.00-0.09	CASING
0.09-15.23	Hornblende feldspar breccia
15.23-16.50	Semi-massive hematite
16.50-23.50	Hornblende feldspar breccia
23.50-26.86	rubbly fault zone
26.86-30.48	Hornblende feldspar breccia *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	98.00	-81.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	0.09	CASING Casing.										
0.09	15.23	Hornblende feldspar breccia Redish-green, stockwork, heterolithic Frs=6/m :Vns =80/m Trace SI patches Moderate CL pervasive Moderate KS pervasive Moderate HE stockwork Moderate CV stockwork Moderate QC stockwork Moderate hematite stockwork zone within heterolithic volcanics 10% crystalline generally oikiolitic, 90% this tuffaceous or fine grained crystallin. Possibly cross cut by indistinct fine grained crystalline dykes. ALTERATION- moderate to strong stockwork and microfracture controlled hematite, strong to moderate pervasive chlorite, moderate irregular calcite +/- quartz stockwork, weak patchy silica.	49797 49798 49799 49800 49801	5.00-6.00 12.00-13.00 13.00-14.00 14.00-14.50 14.50-15.23	1.00 1.00 1.00 0.50 0.73	0.005 0.005 0.010 0.010 2.320	 0.40 0.60 0.20	40.0 19.0 19.0 20.0 138.0	105.0 119.0 691.0 1892.0 861.0	35.0 10.0 10.0 115.0	46.0 35.0 41.0 44.0 109.0	 2.0 4.0 6.0
<0.09-4.40>		Broken Core Weak broken core with weak limonite fracture fill; likely due to surficial weathering.										
<11.20-15.00>		Hornblende Feldspar xtalline Fine grained, crystalline, stockwork HFxl? dyke within volcanics with 25% light green translucent sub to anhedral phenos to 1.5mm. aphanitic matrix.										
<14.90-15.10>		Moderate malachite/azurite/chrisocola fracture fill.										
15.23	16.50	Semi-massive hematite Red, sheared, veined vein 45°:qz-carb veining 40° Trace SI patches Strong CL pervasive Trace MT pervasive Intense HE vein Weak QC microveins Moderate H zone within fragmental volcaniclastic with strong hematite sheeting and massive hematite veins to 30cm. from 40 to 50 degrees, average 50 degrees, strong pervasive chlorite, weak patchy silica. No observed sulphide of visible gold. Lower	49802 49803	15.23-16.00 16.00-16.50	0.77 0.50	16.720 4.220	0.40 	780.0 470.0	119.0 72.0	370.0 165.0	219.0 256.0	6.0 4.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		contact=graduational, quartz/calcite +/- chlorite veins to 2cm. average one at 40 degrees.										
16.50	23.50	Hornblende feldspar breccia	49804	16.50-17.00	0.50	0.085		280.0	189.0	45.0	99.0	2.0
		Dark green, stockwork, heterolithic	49805	17.00-18.00	1.00	0.025		80.0	673.0	30.0	58.0	2.0
		qz-carb veining 40°	49806	18.00-19.00	1.00	0.020		1040.0	166.0	525.0	45.0	2.0
		Frs=8/m :Vns =25/m	49807	19.00-20.00	1.00	0.675		770.0	287.0	335.0	48.0	6.0
		Trace SI patches	49808	20.00-21.00	1.00	0.025		48.0	187.0	15.0	71.0	20.0
		Intense CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Weak QC microveins										
		Heterolithic fragmental volcanic. D.A.P. 0.09 to 15.23m. with intense pervasive black green chlorite; 30% crystalline fragments, some look like augite phenos. Lower contact=fault zone, quartz/calcite/chlorite veins common at 40 degrees.										
	<19.65-19.77>	hematite vein vein 20°										
		1cm. hematite plus black green chlorite vein at 20 degrees.										
23.50	26.86	rubbly fault zone	49809	24.00-25.00	1.00	0.030		42.0	178.0	25.0	79.0	6.0
		Green										
		fracturing 40°										
		Intense CL pervasive										
		Strong angular broken core with gougy seams (medium grained) to 8cm., moderate bleaching and calcite leaching, weak limonite fracture fill, intense pervasive chlorite, no hematite evident. Fractures common at 40 degrees.										
26.86	30.48	Hornblende feldspar breccia	49810	26.86-28.00	1.14	0.010		34.0	121.0	20.0	83.0	4.0
		Massive	49811	28.00-29.00	1.00	0.005		34.0	158.0	5.0	70.0	2.0
		Medium to dark green fine grained fragmental volcaniclastic? very fine grained HFxl, no observed fragments or phenos unit, massive green. ALTERATION- strong pervasive chlorite, K-spar? moderate irregular calcite stockwork often with traces of wispy hematite. MINERALIZATION- 3% fine grained irregular pyrite patches with less disseminations. Lower contact=E.O.H.	49812	29.00-30.00	1.00	0.580	0.20	86.0	297.0	75.0	40.0	2.0
	<26.86-30.48>	Moderate MT patches										
		MINERALIZATION- 3% fine grained irregular pyrite patches with less disseminations. Lower contact=E.O.H.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-80

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-80	Date Completed:		Geotech by: MBW
LENGTH: 21.34	Core Diam: NQII		

Collar Location

Latitude:	2105.98
Departure:	1977.97
Elevation:	1423.51

S U M M A R Y

0.00-14.93	volcaniclastics **
14.93-15.90	Semi-massive hematite
15.90-21.34	Hornblende Feldspar xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	83.00	-45.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	14.93	volcaniclastics	49838	2.00-2.50	0.50	0.050		40.0	126.0	20.0	54.0	6.0
		Redish-green, heterolithic, stockwork	49839	2.50-3.00	0.50	0.100		47.0	181.0	50.0	49.0	8.0
		Frs=8/m :Vns =20/m	49840	3.00-3.50	0.50	0.130		49.0	247.0	55.0	40.0	8.0
		Weak SI patches	49841	3.50-4.00	0.50	0.010		28.0	96.0	30.0	44.0	
		Strong CL pervasive	49842	4.00-4.50	0.50	0.005		16.0	34.0	15.0	34.0	2.0
		Moderate KS pervasive	49830	14.00-14.50	0.50	0.010		46.0	108.0	10.0	71.0	22.0
		Weak EP microveins	49831	14.50-14.93	0.43	0.215	3.40	126.0	5293.0	95.0	218.0	180.0
		Moderate HE stockwork										
		Weak PY disseminated										
		Weak CV microveins										
		Moderate QC microveins										
		Mottled green red fragmental, local narrow brecciated zones at 1.96m. for 4cm. with wispy hematite in chlorite with chlorite rich interval, local pyrite veinlets, grayish appearance up to 2cm.										
	<2.00-3.20>	Intense MT microveins										
		MINERALIZATION- 5% pyrite as microveins.										
	<2.00-3.20>	pyrite vein or veinlet										
		Moderate PY microveins										
		MINERALIZATION- 5% pyrite as microveins.										
	<3.20-3.60>	Intense MT microveins										
		MINERALIZATION- 5% pyrite as microveins, wispy hematite.										
	<3.20-3.60>	pyrite vein or veinlet										
		MINERALIZATION- 5% pyrite as microveins, wispy hematite.										
	<7.20-7.90>	Broken Core										
		Weakly broken core.										
14.93	15.90	Semi-massive hematite	49832	14.93-15.50	0.57	3.520		229.0	141.0	35.0	177.0	8.0
		Blackish-red, veined	49833	15.50-15.82	0.32	5.850		458.0	228.0	20.0	125.0	6.0
		vein 45°:vein 50°										
		Frs=2/m										
		Strong CL pervasive										
		Weak MT patches										
		Intense HE vein										
		Trace SE microveins										
		Weak QC microveins										
		H 1 zone, semi-massive hematite in black chlorite stringers and patches.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
15.90	21.34	Hornblende Feldspar xtalline	49834	15.82-16.50	0.68	0.020		151.0	135.0	20.0	50.0	6.0
		Redish-green, heterolithic, stockwork	49835	16.50-17.00	0.50	0.010		43.0	76.0	20.0	58.0	
		Frs=8/m :Vns =25/m	49836	17.00-17.50	0.50	0.025		41.0	173.0	10.0	82.0	4.0
		Moderate SI patches	49837	17.50-18.00	0.50	0.010		41.0	215.0	10.0	87.0	6.0
		Strong CL pervasive										
		Moderate KS pervasive										
		Weak EP microveins										
		Moderate HE stockwork										
		Weak PY disseminated										
		Weak CV microveins										
		Moderate QC microveins										
		Mottled green red with local barren ghost veins, local red coloured calcite veinlets.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-81

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-81	Date Completed:		Geotech by: MBW
LENGTH: 27.43	Core Diam: NQII		

Collar Location

Latitude:	2105.89
Departure:	1977.55
Elevation:	1423.55

S U M M A R Y

0.00-17.75	volcaniclastics *
17.75-19.52	Semi-massive hematite *
19.52-27.43	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	85.00	-54.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	17.75	volcaniclastics	49843	3.00-3.50	0.50	0.085		67.0	169.0	55.0	55.0	8.0
		Redish-green, heterolithic, stockwork	49844	3.50-4.00	0.50	0.110		73.0	181.0	65.0	37.0	6.0
		Frs=7/m :Vns =15/m	49845	4.00-4.50	0.50	0.110		55.0	174.0	45.0	41.0	6.0
		Moderate SI patches	49846	4.50-5.00	0.50	0.125		49.0	197.0	20.0	42.0	6.0
		Strong CL pervasive	49847	5.00-6.00	1.00	0.005		39.0	98.0	20.0	60.0	8.0
		Moderate KS patches	49848	6.00-7.00	1.00	0.005		28.0	106.0		76.0	
		Weak EP microveins	49849	17.25-17.75	0.50	0.260	0.40	98.0	600.0	40.0	69.0	
		Moderate HE stockwork										
		Weak SE microveins										
		Weak PY disseminated										
		Weak QV microveins										
		Weak CV microveins										
		Moderate QC microveins										
		Mottled green gray to red quartz, epidote veinlets										
		locally, in some areas, pseudo breccia appearance due										
		to hematite, mottling along fractures.										
	<3.25-4.80>	Intense MT wispy										
		MINERALIZATION- 5% wispy pyrite.										
	<3.25-4.80>	Chlorite Streaming										
		Blackish-red, laminated										
		Frs=3/m :Vns =5/m										
		Weak SI patches										
		Intense CL pervasive										
		Moderate HE stockwork										
		Strong PY laminations										
		Black chlorite zone with minor hematite veinlets as										
		well as stringers. MINERALIZATION- 5% wispy pyrite.										
17.75	19.52	Semi-massive hematite	49850	17.75-18.25	0.50	14.560	2.20	208.0	796.0	195.0	375.0	18.0
		Blackish-red, veined	49851	18.25-18.75	0.50	25.610	3.60	1721.0	3910.0	1070.0	375.0	
		:vein 45°	49852	18.75-19.25	0.50	0.030		87.0	75.0		86.0	
		Moderate SI patches										
		Intense CL pervasive										
		Strong MT patches										
		Moderate KS pervasive										
		Strong HE microveins										
		Weak SE microveins										
		Weak QC microveins										
		H zone, semi-massive hematite with 5cm. of massive										
		magnetite at 18.50m. MINERALIZATION- coarse visible										
		gold at 18.5m. in magnetite, strongly chloritic,										
		malachite in vugs along massive magnetite.										
	<17.75-19.52>	MINERALIZATION- coarse visible gold at 18.5m. in										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		magnetite, strongly chloritic, malachite in vugs along magnetite.										
19.52	27.43	volcaniclastics	49853	19.25-20.00	0.75	0.015		37.0	91.0		68.0	
		Redish-green, heterolithic, stockwork	49854	20.00-21.00	1.00	0.015		40.0	257.0		85.0	
		:vein 10°	49855	21.00-22.00	1.00	0.005		39.0	426.0		75.0	
		Frs=3/m :Vns =17/m	49856	22.00-23.00	1.00	0.010		36.0	114.0		82.0	
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS patches										
		Strong EP pervasive										
		Strong HE stockwork										
		Weak PY wispy										
		Weak CV microveins										
		Moderate QC microveins										
		Appears to be coarsely fragmental with abundant local epidote, strong chloritic alteration.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-82

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-82	Date Completed:		Geotech by: MBW
LENGTH: 37.80	Core Diam: NQII		

Collar Location

Latitude:	2105.87
Departure:	1977.22
Elevation:	1423.56

S U M M A R Y

0.00-19.36	volcaniclastics *
19.36-21.50	Semi-massive hematite
21.50-30.00	volcaniclastics **
30.00-37.80	Hornblende Feldspar xtalline *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	85.00	-64.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	19.36	volcaniclastics	49857	4.50-5.00	0.50	0.060		37.0	303.0	5.0	44.0	
		Redish-green, heterolithic, stockwork	49858	5.00-5.50	0.50	0.050		32.0	194.0	60.0	40.0	
		Frs=8/m :Vns =12/m	49859	5.50-6.00	0.50	0.010		39.0	222.0	30.0	47.0	
		Weak SI patches	49860	6.00-6.50	0.50	0.040		32.0	186.0	40.0	51.0	
		Strong CL pervasive	49861	6.50-7.00	0.50	0.005		28.0	147.0	10.0	28.0	
		Moderate KS pervasive	49862	7.00-7.50	0.50	0.005		31.0	129.0	25.0	58.0	
		Moderate EP microveins	49863	7.50-8.00	0.50	0.010		25.0	80.0	10.0	97.0	
		Moderate HE stockwork	49864	8.00-9.00	1.00	0.005		31.0	95.0		86.0	
		Weak PY disseminated	49865	9.00-10.00	1.00	0.005		41.0	151.0		92.0	
		Weak CV microveins	49866	10.00-11.00	1.00	0.010		31.0	122.0		118.0	
		Moderate QC microveins	49867	11.00-12.00	1.00	0.005		37.0	158.0		169.0	
		Same as CL96-81, narrow tuffaceous appearing zones.	49868	12.00-13.00	1.00	0.010		47.0	260.0		199.0	
	<4.50-6.70>	Moderate MT wispy										
		MINERALIZATION- 3% wispy pyrite laminations.										
	<4.50-6.70>	volcaniclastics										
		Blackish-red, laminated										
		Weak SI patches										
		Intense CL pervasive										
		Moderate KS pervasive										
		Moderate HE stockwork										
		Moderate PY laminations										
		Weak QV vein										
		Moderate QC microveins										
		Black chlorite alteration as wispy laminations with accompanying wispy pyrite laminations, weak hematite.										
		MINERALIZATION- 3% wispy pyrite laminations.										
	<12.30-12.80>	Broken Core										
		Broken core, minor limonite in fractures, at 14.6m., narrow quartz/chlorite veinlet to 1cm.										
19.36	21.50	Semi-massive hematite	49869	13.00-14.00	1.00	0.005		41.0	146.0		171.0	
		Blackish-red, veined	49870	18.00-19.00	1.00	0.010		20.0	63.0		55.0	
		Frs=2/m :Vns =40/m	49871	19.00-19.45	0.45	0.365	1.80	122.0	1099.0	35.0	144.0	
		Weak SI patches	49872	19.45-20.00	0.55	20.240	15.40	270.0	15500.0	435.0	483.0	14.0
		Intense CL pervasive	49873	20.00-20.50	0.50	1.590		162.0	447.0	80.0	248.0	
		Intense MT vein	49874	20.50-21.00	0.50	0.095		47.0	112.0		133.0	
		Moderate KS pervasive	49875	21.00-21.50	0.50	0.010		40.0	91.0		95.0	
		Intense HE vein										
		Weak QV vein										
		Weak QC microveins										
		H zone, mottled pink to black with 4cm. massive magnetite vein, vein has massive chlorite stringers to 2cm.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
21.50	30.00	volcaniclastics	49876	21.50-22.00	0.50	0.010	1.00	41.0	1125.0		92.0	
		laminations 25°:qz-carb veining 25°	49877	22.00-23.00	1.00	0.005		38.0	135.0		110.0	
		Frs=3/m :Vns =8/m	49878	23.00-24.00	1.00	0.010		41.0	165.0		93.0	
		Weak SI patches	49879	24.00-25.00	1.00	0.010		38.0	136.0		82.0	
		Strong CL pervasive	49880	25.00-26.00	1.00	0.005		43.0	158.0		81.0	
		Moderate KS pervasive	49881	29.00-30.00	1.00	0.030	1.00	53.0	263.0		307.0	
		Weak PY laminations										
		Weak QV vein										
		Moderate QC microveins										
		MINERALIZATION- minor wispy pyrite veins, mottled dark gray green to red,pyrite to 1%.										
	<21.50-30.00>	Trace MT wispy										
		MINERALIZATION- minor wispy pyrite veins, mottled dark gray to green to red, pyrite to 1%.										
	<29.70-29.90>	MINERALIZATION- mottled pink green, pyrite to 3%.										
	<29.70-29.90>	sulphide-hematite vein										
		Strong SI patches										
		Intense CL pervasive										
		Strong KS pervasive										
		Strong HE vein										
		Moderate PY interstitial										
		MINERALIZATION- mottled pink green, pyrite to 3%.										
30.00	37.80	Hornblende Feldspar xtalline	49882	30.00-31.00	1.00	0.050	0.40	21.0	384.0	15.0	120.0	28.0
		Green, fragmental, foliated	49883	31.00-32.00	1.00	0.005		14.0	268.0		69.0	
		Frs=3/m :Vns =5/m										
		Strong SI patches										
		Strong CL pervasive										
		Strong KS pervasive										
		Moderate HE stockwork										
		Moderate PY laminations										
		Moderate QV microveins										
		Moderate QC microveins										
		Dark gray green, fine grained minor quartz/chlorite veinlets, wispy hematite veinlets. MINERALIZATION- pyrite to 1%. E.O.H.- 37.80m.										
	<30.00-37.80>	MINERALIZATION- pyrite to 1%. E.O.H.- 37.80m.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-83

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-83	Date Completed:		Geotech by: MBW
LENGTH: 51.51	Core Diam: NQII		

Collar Location

Latitude:	2105.87
Departure:	1976.98
Elevation:	1423.52

S U M M A R Y

0.00-51.51	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	80.00	-74.00	

HOLE: CL96-83 HOMESTAKE MINING COMPANY - Clone

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	51.51	volcaniclastics	49884	0.00-1.00	1.00	0.020		47.0	224.0		57.0	
		Greenish-red, heterolithic, stockwork	49885	1.00-2.00	1.00	0.010		42.0	90.0		70.0	
		Frs=5/m :Vns =6/m	49886	2.00-3.00	1.00	0.005		43.0	227.0		64.0	
		Moderate SI patches	49887	3.00-4.00	1.00	0.020		47.0	239.0	5.0	80.0	
		Strong CL pervasive	49888	4.00-5.00	1.00	0.020		47.0	204.0	20.0	66.0	
		Moderate KS pervasive	49889	5.00-6.00	1.00	0.005		44.0	267.0	10.0	85.0	
		Moderate EP microveins	49890	6.00-7.00	1.00	0.010		48.0	359.0	15.0	86.0	
		Moderate HE stockwork	49891	7.00-8.00	1.00	0.005		46.0	288.0	20.0	93.0	
		Moderate PY laminations	49892	8.00-9.00	1.00	0.015		51.0	315.0	35.0	81.0	
		Weak QV vein	49893	9.00-10.00	1.00	0.005		63.0	394.0	5.0	82.0	
		Moderate QC microveins	49894	10.00-11.00	1.00	0.005		44.0	263.0	30.0	70.0	
		Weakly mottled green red crackle zone at 6.5m. to	49895	11.00-12.00	1.00	0.005		42.0	174.0	45.0	104.0	
		15cm. with strong epidote/quartz veining, as well as	49896	12.00-13.00	1.00	0.005		45.0	233.0		144.0	
		at 3.2m., strong hematite at 1.83 to 2.80m., local	49897	13.00-14.00	1.00	0.010		43.0	298.0	60.0	128.0	
		strong pyrite with black chlorite patches.	49898	14.00-15.00	1.00	0.005		63.0	241.0		137.0	
		MINERALIZATION- pyrite occurs as wispy laminations,	49899	15.00-16.00	1.00	0.005		55.0	254.0	30.0	119.0	
		disseminated grains and as coarse grained patches, 3%	49900	16.00-17.00	1.00	0.005		45.0	165.0	20.0	119.0	
		pyrite occasionally weak hematite occurs along with	48001	17.00-18.00	1.00	0.010		53.0	166.0	60.0	150.0	
		the pyrite.	48002	18.00-19.00	1.00	0.005		51.0	191.0	20.0	255.0	
<28.50-51.51>			48003	19.00-20.00	1.00	0.010	0.40	52.0	171.0	45.0	227.0	8.0
(eoh)												

12/03/96

From	TO	Measured Width	Recovery	RQD	Hardness
0.00	0.00	0.00	0	0	

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-84

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-84	Date Completed:		Geotech by: MBW
LENGTH: 91.14	Core Diam: NQII		

Collar Location

Latitude:	2105.83
Departure:	1976.79
Elevation:	1423.21

S U M M A R Y

0.00-19.80	volcaniclastics ***
19.80-27.00	Hornblende Feldspar xtalline **
27.00-31.40	Semi-massive hematite *
31.40-64.40	Hornblende Feldspar xtalline *
64.40-71.60	Semi-massive hematite *****
71.60-91.14	Hornblende Feldspar xtalline *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	85.00	-85.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	19.80	volcaniclastics	48039	0.00-1.00	1.00	0.010		43.0	139.0		73.0	
		Redish-green, heterolithic, stockwork	48040	1.00-2.00	1.00	0.015		55.0	79.0		83.0	
		Frs=3/m :Vns =5/m	48041	2.00-3.00	1.00	0.005		53.0	190.0		89.0	
		Moderate SI patches	48042	3.00-4.00	1.00	0.010		63.0	390.0	25.0	73.0	
		Strong CL pervasive	48043	4.00-5.00	1.00	0.005		58.0	343.0	30.0	74.0	8.0
		Moderate KS pervasive	48044	5.00-6.00	1.00	0.005		94.0	458.0	10.0	75.0	16.0
		Weak EP microveins	48045	6.00-7.00	1.00	0.020		56.0	286.0		71.0	6.0
		Moderate HE stockwork	48046	7.00-8.00	1.00	0.010		62.0	244.0	65.0	73.0	14.0
		Weak QV vein	48047	8.00-9.00	1.00	0.005		65.0	209.0		121.0	4.0
		Moderate QC microveins	48048	9.00-10.00	1.00	0.005		63.0	228.0	35.0	150.0	8.0
		Mottled variably red green, strong CaCo3 stockwork at	48049	10.00-11.00	1.00	0.010		59.0	163.0	15.0	135.0	10.0
		9.0 to 9.30m. quartz epidote veining.	48050	11.00-12.00	1.00	0.005		79.0	279.0	55.0	131.0	12.0
<4.30-8.00>		Strong MT laminations										
		MINERALIZATION- pyrite as wispy laminations and coarse										
		patches up to 4%.										
<4.30-8.00>		Chlorite Streaming										
		Stockwork										
		Frs=3/m :Vns =25/m										
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Strong HE stockwork										
		Strong PY laminations										
		Moderate QC microveins										
		Wispy hematite along fractures, pyrite laminations										
		along black chloritic. MINERALIZATION- pyrite as wispy										
		laminations and coarse patches up to 4%.										
<10.50-11.30>		MINERALIZATION- pyrite to 3%.										
<10.50-11.30>		Chlorite Streaming										
		Laminated										
		Frs=3/m										
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Strong HE stockwork										
		Strong PY laminations										
		Moderate QC microveins										
		Coarse pyrite in black chloritic patches.										
		MINERALIZATION- pyrite to 3%.										
<14.30-15.30>		MINERALIZATION- pyrite as 4%.	48051	12.00-13.00	1.00	0.010		74.0	149.0	55.0	157.0	10.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<14.30-15.30>		Chlorite Streaming Laminated Frs=3/m Moderate SI patches Strong CL pervasive Moderate KS pervasive Strong HE stockwork Strong PY laminations Moderate QC microveins Abundant hematite along fractures abundant pyrite as patchy and along fractures. MINERALIZATION- pyrite to 4%.	48052	13.00-14.00	1.00	0.005		61.0	80.0	30.0	185.0	2.0
			48053	14.00-15.00	1.00	0.005		45.0	121.0	25.0	50.0	4.0
19.80	27.00	Hornblende Feldspar xtalline Fine grained, green, porphyritic Frs=8/m :Vns =7/m Moderate SI patches Moderate CL pervasive Moderate KS pervasive Weak HE stockwork Moderate PY laminations Moderate QC microveins Medium grained, subhedral to anhedral feldspar in fine grained granular mass, strong calcite stockwork, pyrite along fractures. MINERALIZATION- pyrite to 3%.	48054	15.00-16.00	1.00	0.005		54.0	246.0	15.0	51.0	6.0
			48055	16.00-17.00	1.00	0.005		29.0	90.0	40.0	69.0	4.0
			48056	17.00-18.00	1.00	0.010		32.0	99.0	40.0	80.0	10.0
			48057	18.00-19.00	1.00	0.015		31.0	89.0	35.0	80.0	12.0
			48058	19.00-20.00	1.00	0.005		34.0	123.0	40.0	91.0	16.0
			48059	20.00-21.00	1.00	0.005		36.0	157.0	25.0	148.0	12.0
			48060	21.00-22.00	1.00	0.010		37.0	108.0	40.0	127.0	22.0
			48061	22.00-23.00	1.00	0.005		40.0	104.0	25.0	133.0	8.0
			48062	23.00-24.00	1.00	0.005		34.0	93.0	15.0	117.0	8.0
			48063	24.00-25.00	1.00	0.005		35.0	101.0	25.0	79.0	12.0
			48064	25.00-26.00	1.00	0.005		34.0	57.0		72.0	4.0
			48065	26.00-27.00	1.00	0.010		32.0	121.0	40.0	170.0	16.0
<19.80-27.00>		MINERALIZATION- pyrite to 3%.										
<24.00-27.00>		Chlorite Streaming Fine grained, greenish-red, laminated Frs=8/m :Vns =10/m Moderate SI patches Strong CL pervasive Moderate KS pervasive Strong HE stockwork Strong PY laminations Moderate QC microveins Abundant chlorite along foliated section, local hematite as well as pyrite veinlets and laminations.										
<26.60-26.70>		MINERALIZATION- pyrite to 5%.										
<26.60-26.70>		semi-massive sulphides Aphanitic, yellow, veined Intense PY vein Massive pyrite in quartz/carbonate vein. MINERALIZATION- pyrite to 5%.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
27.00	31.40	Semi-massive hematite	48066	27.00-27.50	0.50	6.980	4.20	41.0	196.0	95.0	671.0	102.0
		Fine grained, redish-black, veined	48067	27.50-28.00	0.50	0.490	0.40	24.0	91.0	45.0	253.0	24.0
		Frs=3/m	48068	28.00-28.50	0.50	0.425	0.60	52.0	207.0		442.0	24.0
		Moderate SI patches	48069	28.50-29.00	0.50	1.530	0.80	136.0	177.0	80.0	485.0	12.0
		Intense CL pervasive	48070	29.00-29.50	0.50	5.640	1.40	124.0	130.0	110.0	316.0	34.0
		Strong MT patches	48071	29.50-30.00	0.50	1.950	0.80	58.0	112.0	25.0	403.0	20.0
		Strong KS pervasive	48072	30.00-30.50	0.50	0.090		39.0	98.0	45.0	313.0	16.0
		Strong HE vein	48073	30.50-31.40	0.90	0.460	0.80	79.0	372.0	50.0	1102.0	44.0
		Strong PY vein										
		Moderate QC microveins										
		H zone at 27.0 to 27.50m. intense chlorite laminated										
		pyrite at 20 degrees to core axis. Coarse grained										
		pyrite as veinlets, strong magnetism in chlorite										
		portion, hematite occurs as patches and semi-massive										
		veins at 20 degrees to core axis. MINERALIZATION-										
		pyrite to 7%, 1 to 2% magnetite at 31.0 to 31.40m.,										
		strong magnetism.										
	<27.00-31.40>	MINERALIZATION- pyrite to 7%, 1 to 2% magnetite at										
		31.0 to 31.40m., strong magnetism.										
31.40	64.40	Hornblende Feldspar xtalline	48074	31.40-32.00	0.60	0.005		28.0	91.0	15.0	98.0	10.0
		Fine grained, redish-green, heterolithic, stockwork	48075	32.00-33.00	1.00	0.010		24.0	41.0	10.0	49.0	8.0
		Frs=15/m :Vns =25/m	48076	33.00-34.00	1.00	0.005		30.0	59.0	10.0	43.0	8.0
		Moderate SI patches	48077	34.00-35.00	1.00	0.005		22.0	45.0	15.0	45.0	8.0
		Strong CL pervasive	48078	35.00-36.00	1.00	0.010		32.0	212.0		52.0	6.0
		Moderate KS pervasive	48079	36.00-37.00	1.00	0.005		30.0	197.0		53.0	6.0
		Moderate HE stockwork	48080	37.00-38.00	1.00	0.010		35.0	161.0		44.0	6.0
		Moderate PY disseminated	48081	38.00-39.00	1.00	0.005		31.0	119.0		39.0	4.0
		Moderate QC microveins	48082	39.00-40.00	1.00	0.005		33.0	92.0		42.0	6.0
		Mottled red green locally, highly fractured, strong	48083	40.00-41.00	1.00	0.040		31.0	78.0		45.0	6.0
		calcite stockwork, limonite on fractures locally.	48084	41.00-42.00	1.00	0.005		32.0	127.0		39.0	6.0
	<31.50-32.00>	Broken Core										
		Broken core.										
	<33.00-34.00>	Broken core.										
	<35.50-35.66>	Fault.										
	<52.00-52.50>	Broken core vuggy with limonite on fractures.	48085	42.00-43.00	1.00	0.005		30.0	123.0		32.0	6.0
	<59.95-60.00>	rubbly fault zone	48086	43.00-44.00	1.00	0.010		32.0	130.0		31.0	4.0
		Gouge	48087	44.00-45.00	1.00	0.005		27.0	76.0		38.0	6.0
		Fault, ground up pyrite along gouge at 35 degrees to	48088	45.00-46.00	1.00	0.005		28.0	97.0		41.0	8.0
		core axis.	48089	46.00-47.00	1.00	0.005		23.0	58.0		36.0	8.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		--										
		<63.00-63.12>MINERALIZATION- 50% pyrite.	48090	47.00-48.00	1.00	0.005		21.0	49.0		36.0	10.0
		<63.00-63.12> sulphide-hematite vein	48091	48.00-49.00	1.00	0.010		23.0	92.0	5.0	42.0	10.0
		Intense HE vein	48092	49.00-50.00	1.00	0.005		25.0	118.0		69.0	12.0
		Intense PY vein	48093	50.00-51.00	1.00	0.115		36.0	120.0	115.0	67.0	22.0
		MINERALIZATION- 50% pyrite.	48094	51.00-52.00	1.00	0.010		31.0	120.0	25.0	62.0	14.0
64.40	71.60	Semi-massive hematite	48095	52.00-53.00	1.00	0.005		32.0	122.0	20.0	49.0	14.0
		Blackish-red, veined	48096	53.00-54.00	1.00	0.005		28.0	87.0	35.0	50.0	14.0
		Frs=5/m	48097	54.00-55.00	1.00	0.005		29.0	94.0	25.0	45.0	12.0
		Moderate SI patches	48098	55.00-56.00	1.00	0.010		30.0	97.0	20.0	49.0	52.0
		Intense CL pervasive	48099	56.00-57.00	1.00	0.040		79.0	326.0	30.0	70.0	16.0
		Strong MT patches	48100	57.00-58.00	1.00	0.175		41.0	188.0	10.0	55.0	12.0
		Moderate KS pervasive	48101	58.00-59.00	1.00	0.025		37.0	121.0	5.0	64.0	8.0
		Intense HE vein	48102	59.00-60.00	1.00	0.030		40.0	91.0	35.0	83.0	6.0
		Strong SE vein	48103	60.00-61.00	1.00	0.560	0.20	90.0	288.0	110.0	342.0	8.0
		Strong PY patches	48104	61.00-62.00	1.00	0.310	0.40	73.0	440.0	135.0	908.0	6.0
		Moderate QC microveins	48105	62.00-62.50	0.50	0.160	3.60	86.0	1574.0	225.0	1125.0	6.0
		H zone at upper contact, strong chlorite veining alon	48106	62.50-63.00	0.50	2.720	1.40	239.0	652.0	230.0	1148.0	162.0
		quartz/calcite veins, massive hematite from 64.60 to	48107	63.00-63.50	0.50	3.210	2.60	635.0	703.0	555.0	640.0	450.0
		65.90m. abundant specularite veinlets at 64.90 to	48108	63.50-64.00	0.50	12.890	1.00	941.0	121.0	815.0	415.0	32.0
		65.50m., visible gold as numerous fine grained specks	48109	64.00-64.40	0.40	8.530	0.80	659.0	114.0	600.0	352.0	18.0
		at 64.9 to 65.5m., local silicification, at 67.5m.	48110	64.40-65.00	0.60	53.500	5.00	320.0	177.0	285.0	186.0	26.0
		narrow calcite convented broken zone, weak limonite on	48111	65.00-65.50	0.50	75.600	7.20	231.0	91.0	260.0	165.0	26.0
		fractures. MINERALIZATION- pyrite to 5%.	48112	65.50-66.00	0.50	59.700	11.00	142.0	2311.0	275.0	105.0	46.0
		<64.40-71.60>MINERALIZATION- pyrite to 5%.	48113	66.00-66.50	0.50	0.665	1.00	270.0	1436.0	305.0	97.0	16.0
		<68.50-68.60>MINERALIZATION- pyrite up to 5% at 20 degrees to core	48114	66.50-67.00	0.50	0.420	0.60	147.0	531.0	145.0	123.0	18.0
		axis.	48115	67.00-67.50	0.50	0.490	1.20	238.0	1240.0	290.0	168.0	18.0
		<68.50-68.60> sulphide-hematite vein	48116	67.50-68.00	0.50	0.355	1.00	468.0	2030.0	490.0	197.0	48.0
		Intense HE vein										
		Intense SE vein										
		Intense PY coarse grained										
		MINERALIZATION- pyrite up to 5% at 20 degrees to core										
		axis.										
		<69.75-69.81>MINERALIZATION- pyrite up to 5% at 20 degrees to core	48117	68.00-69.00	1.00	0.140		167.0	284.0	170.0	94.0	20.0
		axis.										
		<69.75-69.81> sulphide-hematite vein										
		Intense HE vein										
		Intense PY coarse grained										
		MINERALIZATION- pyrite up to 5% at 20 degrees to core										
		axis.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
<70.70-70.80>		MINERALIZATION- pyrite up to 5% at 20 degrees to core axis.	48118	69.00-70.00	1.00	0.005		49.0	155.0	45.0	60.0	12.0
<70.70-70.80>		sulphide-hematite vein Intense HE vein Intense PY coarse grained MINERALIZATION- pyrite up to 5% at 20 degrees to core axis.										
<71.30-71.60>		MINERALIZATION- pyrite up to 5% at 20 degrees to core axis.	48119	70.00-71.00	1.00	0.125		332.0	722.0	315.0	59.0	38.0
<71.30-71.60>		sulphide-hematite vein Intense HE vein Intense PY coarse grained MINERALIZATION- pyrite up to 5% at 20 degrees to core axis.										
71.60	91.14	Hornblende Feldspar xtalline	48120	71.00-72.00	1.00	0.060		140.0	342.0	140.0	55.0	20.0
		Heterolithic, stockwork	48121	72.00-73.00	1.00	0.005		126.0	70.0	100.0	126.0	8.0
		Frs=5/m :Vns =10/m	48122	73.00-74.00	1.00	0.005		90.0	112.0	70.0	118.0	8.0
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Moderate HE stockwork										
		Weak PY disseminated										
		Moderate QC microveins										
		Locally mottled red green local strong chlorite, pyrite along veinlets and as dissemination.										
		MINERALIZATION- pyrite to 2%.										
<71.60-91.14>		MINERALIZATION- pyrite to 2%.										
<77.00-78.00>		Chlorite Streaming										
<82.00-83.40>		Broken Core										
		Broken core.										
(eoh)												

HOMESTAKE MINING COMPANY

DRILL HOLE LOG

CL96-85

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-85	Date Completed:		Geotech by: MBW
LENGTH: 75.29	Core Diam: NQII		

Collar Location

Latitude:	2105.86
Departure:	1976.83
Elevation:	1423.51

S U M M A R Y

0.00-75.29

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	87.00	-80.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		<0.00-75.29>	48123	0.00-1.00	1.00	0.005		42.0	96.0	15.0	41.0	6.0
		(eoh)	48124	1.00-2.00	1.00	0.005		36.0	71.0	15.0	48.0	6.0
			48125	2.00-3.00	1.00	0.005		64.0	319.0	40.0	47.0	6.0
			48126	3.00-4.00	1.00	0.005		59.0	405.0	45.0	32.0	16.0
			48127	4.00-5.00	1.00	0.005		42.0	216.0	45.0	34.0	10.0
			48128	5.00-6.00	1.00	0.005		50.0	153.0	45.0	29.0	8.0
			48129	6.00-7.00	1.00	0.005		33.0	147.0	30.0	41.0	10.0
			48130	7.00-8.00	1.00	0.005		39.0	165.0	15.0	48.0	10.0
			48131	8.00-9.00	1.00	0.005		37.0	141.0	15.0	51.0	10.0
			48132	9.00-10.00	1.00	0.005		33.0	139.0	15.0	47.0	12.0
			48133	10.00-11.00	1.00	0.005		31.0	119.0	50.0	49.0	16.0
			48134	11.00-12.00	1.00	0.005		28.0	92.0	45.0	65.0	14.0
			48135	12.00-13.00	1.00	0.005		29.0	81.0	35.0	68.0	14.0
			48136	13.00-14.00	1.00	0.005		29.0	93.0	20.0	62.0	12.0
			48137	14.00-15.00	1.00	0.005		31.0	101.0	25.0	60.0	12.0
			48138	15.00-16.00	1.00	0.005		30.0	114.0	35.0	58.0	12.0
			48139	16.00-17.00	1.00	0.005		34.0	104.0	25.0	116.0	12.0
			48140	17.00-18.00	1.00	0.005		33.0	118.0	30.0	118.0	12.0
			48141	18.00-19.00	1.00	0.005		33.0	90.0	25.0	144.0	14.0
			48142	19.00-20.00	1.00	0.005		32.0	99.0	20.0	163.0	22.0
			48143	20.00-21.00	1.00	0.005		33.0	140.0	15.0	190.0	26.0
			48144	21.00-22.00	1.00	0.010		36.0	111.0	20.0	151.0	32.0
			48145	22.00-23.00	1.00	0.005		36.0	109.0	25.0	140.0	36.0
			48146	23.00-24.00	1.00	0.010		36.0	95.0	25.0	102.0	28.0
			48147	24.00-25.00	1.00	0.020		32.0	72.0	20.0	75.0	24.0
			48148	25.00-26.00	1.00	1.010	0.80	59.0	100.0	35.0	305.0	32.0
			48149	26.00-27.00	1.00	1.030	0.40	50.0	86.0	75.0	238.0	30.0
			48150	27.00-28.00	1.00	0.980	0.20	99.0	96.0	110.0	360.0	30.0
			48151	28.00-29.00	1.00	0.005		17.0	215.0		75.0	16.0
			48152	29.00-30.00	1.00	0.025		14.0	151.0		64.0	20.0
			48153	30.00-31.00	1.00	0.005		13.0	111.0		92.0	20.0
			48154	31.00-32.00	1.00	0.005		12.0	110.0		81.0	26.0
			48155	32.00-33.00	1.00	0.005	0.20	16.0	627.0	5.0	159.0	16.0
			48156	33.00-34.00	1.00	0.010		17.0	227.0	20.0	230.0	16.0
			48157	34.00-35.00	1.00	0.005		12.0	135.0	5.0	130.0	16.0
			48158	35.00-36.00	1.00	0.745	1.60	24.0	1119.0	30.0	263.0	50.0
			48159	36.00-37.00	1.00	0.470		31.0	204.0		138.0	28.0
			48160	37.00-38.00	1.00	0.005		29.0	157.0		50.0	12.0
			48161	38.00-39.00	1.00	0.005		25.0	162.0	10.0	43.0	14.0
			48162	39.00-40.00	1.00	0.005		30.0	112.0		43.0	14.0
			48163	40.00-41.00	1.00	0.005		34.0	114.0		37.0	12.0
			48164	41.00-42.00	1.00	0.005		27.0	82.0	10.0	42.0	14.0
			48165	42.00-43.00	1.00	0.130		34.0	160.0	60.0	179.0	20.0
			48166	43.00-44.00	1.00	0.020	0.40	33.0	528.0	65.0	107.0	22.0
			48167	44.00-45.00	1.00	0.005		31.0	221.0	25.0	99.0	16.0
			48168	45.00-46.00	1.00	0.010	0.20	34.0	238.0	40.0	183.0	22.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
			48169	46.00-47.00	1.00	0.055		25.0	264.0	20.0	139.0	14.0
			48170	47.00-48.00	1.00	0.790	0.20	17.0	276.0	20.0	92.0	4.0
			48171	48.00-49.00	1.00	0.405	2.00	17.0	1845.0	45.0	77.0	6.0
			48172	49.00-50.00	1.00	0.070		25.0	285.0	25.0	67.0	12.0
			48173	50.00-50.50	0.50	0.060		22.0	197.0	15.0	54.0	12.0
			48174	50.50-51.00	0.50	0.080		34.0	270.0	30.0	69.0	14.0
			48175	51.00-51.50	0.50	0.015		26.0	120.0	25.0	52.0	12.0
			48176	51.50-52.00	0.50	0.155		58.0	388.0	50.0	103.0	12.0
			48177	52.00-52.50	0.50	0.445	0.40	57.0	1225.0	85.0	100.0	10.0
			48178	52.50-53.00	0.50	1.520	0.80	71.0	232.0	80.0	96.0	4.0
			48179	53.00-53.50	0.50	0.030	1.00	71.0	558.0	40.0	98.0	
			48180	53.50-54.00	0.50	0.110	1.40	48.0	660.0	30.0	90.0	12.0
			48181	54.00-54.50	0.50	0.780	0.80	81.0	535.0	65.0	86.0	
			48182	54.50-55.00	0.50	3.480	0.80	83.0	829.0	120.0	70.0	6.0
			48183	55.00-55.50	0.50	0.480	0.60	306.0	862.0	245.0	117.0	
			48184	55.50-56.00	0.50	0.800	0.40	369.0	219.0	140.0	127.0	
			48185	56.00-56.50	0.50	0.600	0.20	507.0	273.0	375.0	151.0	
			48186	56.50-57.00	0.50	2.960	0.40	873.0	296.0	875.0	160.0	
			48187	57.00-57.50	0.50	5.850	4.00	872.0	459.0	980.0	194.0	6.0
			48188	57.50-58.00	0.50	0.015	0.40	77.0	131.0	115.0	132.0	
			48189	58.00-59.00	1.00	0.005		35.0	117.0		63.0	
			48190	59.00-60.00	1.00	0.280		97.0	127.0	75.0	118.0	4.0
			48191	60.00-61.00	1.00	1.040	0.20	196.0	92.0	250.0	2084.0	72.0
			48192	61.00-62.00	1.00	3.030	0.40	277.0	456.0	295.0	319.0	2.0
			59338	62.00-63.00	1.00							
			59339	63.00-64.00	1.00							
			59340	64.00-65.00	1.00							
			59341	65.00-66.00	1.00							

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-86

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-86	Date Completed:		Geotech by: MBW
LENGTH: 15.24	Core Diam: NQII		

Collar Location

Latitude:	2126.24
Departure:	1977.14
Elevation:	1430.44

S U M M A R Y

0.00-10.00	volcaniclastics
10.00-11.20	Semi-massive hematite
11.20-15.24	volcaniclastics

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	81.00	-46.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	10.00	volcaniclastics	48193	1.00-2.00	1.00	0.005		59.0	239.0	15.0	133.0	
		Redish-green, heterolithic, stockwork	48194	2.00-3.00	1.00	0.005		44.0	87.0		201.0	
		hematite stringers 60°:qz-carb veining 45°	48195	3.00-4.00	1.00	0.005		47.0	121.0		148.0	
		Frs=4/m :Vns =20/m	48196	4.00-5.00	1.00	0.005		75.0	137.0	20.0	189.0	10.0
		Moderate SI patches	48197	5.00-6.00	1.00	0.005		57.0	88.0	10.0	152.0	
		Strong CL pervasive	48198	6.00-7.00	1.00	0.005		60.0	127.0		135.0	
		Moderate KS pervasive	48199	7.00-8.00	1.00	0.005		52.0	110.0		252.0	
		Moderate EP patches	48200	8.00-9.00	1.00	0.010		47.0	91.0		159.0	
		Moderate HE stockwork	48201	9.00-10.00	1.00	0.045		77.0	83.0		78.0	
		Weak PR microveins										
		Weak CV microveins										
		Moderate QC microveins										
		2 % pyrrhotite - microveins										
		Mottled red green, patchy and wispy hematite, quartz										
		carbonate veining locally along core axis, generally										
		at 45 degrees, locally veins up to 2cm. with boxwork										
		calcite veining associated with hematite and apparent										
		K-feldspar alteration.										
10.00	11.20	Semi-massive hematite	48202	10.00-10.50	0.50	6.670	2.00	581.0	482.0	2035.0	152.0	148.0
		Redish-green, mottled	48203	10.50-11.00	0.50	1.730		125.0	188.0	230.0	157.0	24.0
		hematite stringers 45°										
		Moderate SI patches										
		Strong CL pervasive										
		Weak MT patches										
		Moderate KS pervasive										
		Moderate HE wispy										
		Moderate PY massive										
		Moderate QC microveins										
		H zone, generally weak H zone with minor hematite										
		stringers.										
<10.26-10.51>		MASSIVE SULPHIDE VEIN										
		Chlorite 90°										
		Trace SI vein										
		Strong CL massive										
		Moderate MT patches										
		Strong HE vein										
		Intense PY massive										
		Coarse grained massive pyrite, vuggy limonite in										
		fractures, locally bleached light purple, massive										
		chlorite at 90 degrees to core axis.										
11.20	15.24	volcaniclastics	48204	11.00-11.50	0.50	0.510	0.20	61.0	562.0	50.0	97.0	6.0
		Redish-green, heterolithic, stockwork	48205	11.50-12.00	0.50	0.005		43.0	95.0	25.0	80.0	6.0
		hematite stringers 45°:qz-carb veining 60°	48206	12.00-13.00	1.00	0.005	0.20	39.0	366.0	10.0	76.0	6.0

FROM	TO	D E S C R I P T I O N	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Frs=5/m :Vns =25/m	48207	13.00-14.00	1.00	0.005		36.0	63.0		59.0	6.0
		Moderate SI patches	48208	14.00-15.00	1.00	0.020		36.0	81.0	45.0	57.0	18.0
		Strong CL pervasive										
		Moderate KS pervasive										
		Moderate HE stockwork										
		Moderate PY patches										
		Moderate QC microveins										
(coh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-87

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-87	Date Completed:		Geotech by: MBW
LENGTH: 24.38	Core Diam: NQII		

Collar Location

Latitude:	2125.93
Departure:	1975.59
Elevation:	1431.47

S U M M A R Y

0.00-14.87	volcaniclastics *
14.87-15.85	Semi-massive hematite
15.85-24.38	volcaniclastics *

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	82.00	-54.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	14.87	volcaniclastics -	48209	1.00-2.00	1.00	0.005		31.0	73.0	20.0	48.0	12.0
		Redish-green, heterolithic, stylolitic	48210	2.00-3.00	1.00	0.035		36.0	97.0	15.0	71.0	10.0
		hematite stringers 45°:qz-carb veining	48211	3.00-4.00	1.00	0.010		77.0	251.0	70.0	66.0	18.0
		Frs=5/m :Vns =24/m	48212	4.00-5.00	1.00	0.010		44.0	90.0	5.0	123.0	12.0
		Moderate SI patches	48213	5.00-6.00	1.00	0.005		30.0	50.0		153.0	6.0
		Strong CL pervasive	48214	6.00-7.00	1.00	0.005		31.0	55.0		147.0	6.0
		Moderate KS pervasive	48215	7.00-8.00	1.00	0.005		39.0	87.0		107.0	22.0
		Moderate EP patches	48216	8.00-9.00	1.00	0.010		34.0	82.0		116.0	16.0
		Moderate HE stockwork	48217	9.00-10.00	1.00	0.005		33.0	68.0		118.0	8.0
		Weak PY disseminated	48218	10.00-11.00	1.00	0.005		34.0	91.0		122.0	12.0
		Weak QV vein	48219	11.00-12.00	1.00	0.005		37.0	96.0		129.0	10.0
		Moderate QC microveins	48220	12.00-13.00	1.00	0.005		42.0	103.0		118.0	10.0
		Locally brecciated with quartz/calcite veins forming	48221	13.00-14.00	1.00	0.015		31.0	92.0		79.0	8.0
		boxwork textures in zones up to 3cm., calcite veins	48222	14.00-14.87	0.87	0.005		55.0	245.0		95.0	10.0
		cut and offset hematite stringers up to 1cm.										
<1.00-2.00>		Broken Core										
		Broken core, vuggy limonite with minor clay on										
		fractures.										
<2.70-3.30>		MINERALIZATION- 6% pyrite.										
<2.70-3.30>		Chlorite Streaming										
		Stockwork										
		hematite stringers 55°										
		Frs=2/m :Vns =30/m										
		Moderate SI patches										
		Intense CL pervasive										
		Moderate KS pervasive										
		Strong HE stockwork										
		Moderate PY microveins										
		Moderate QC microveins										
		Zone of intense chlorite with abundant hematite and										
		pyrite as veinlets. MINERALIZATION- 6% pyrite.										
14.87	15.85	Semi-massive hematite	48223	14.87-15.37	0.50	1.040		554.0	198.0	355.0	98.0	8.0
		Redish-green, veined, mottled	48224	15.37-15.85	0.48	8.060	0.60	734.0	152.0	725.0	143.0	10.0
		Weak SI patches										
		Intense CL microveins										
		Moderate KS pervasive										
		Intense HE stockwork										
		Weak PY disseminated										
		Moderate QC microveins										
		H zone, zone is brecciated in appearance with pinkish										
		calcite fragments in highly chloritic rock, hematite										
		stringers offset up to 1 to 2cm. along 1cm. calcite										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		veinlets.										
15.85	24.38	volcaniclastics	48225	15.85-16.50	0.65	1.980		230.0	98.0	175.0	132.0	12.0
		Redish-green, stockwork, mottled	48226	16.50-17.00	0.50	0.080		108.0	124.0	80.0	110.0	12.0
		hematite stringers 45°:qz-carb veining 45°	48227	17.00-18.00	1.00	0.060		74.0	224.0	30.0	92.0	10.0
		Frs=3/m :Vns =15/m	48228	18.00-19.00	1.00	0.005		35.0	228.0	25.0	75.0	16.0
		Moderate SI patches	48229	19.00-20.00	1.00	1.290	0.40	213.0	600.0	180.0	107.0	26.0
		Strong CL pervasive	48230	20.00-21.00	1.00	0.420		97.0	317.0	85.0	106.0	32.0
		Moderate KS pervasive	48231	21.00-22.00	1.00	0.005		38.0	103.0	30.0	83.0	20.0
		Moderate HE stockwork	48232	22.00-23.00	1.00	0.075	1.80	32.0	1593.0	75.0	68.0	14.0
		Weak PY disseminated										
		Moderate QC microveins										
		Minor chlorite streaming, abundant limonite on										
		fracture from 24.0 to 24.05m.										
		quartz/carbonate/chlorite vein, local intense chlorite										
		streaming. MINERALIZATION- fine grained pyrite to 1%.										
<15.85-24.38>		Trace MT fine grained										
		MINERALIZATION- fine grained pyrite to 1%.										
(eoh)												

11/29/96

HOMESTAKE MINING COMPANY — DRILL HOLE LOG — CL96-88

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-88	Date Completed:		Geotech by: MBW
LENGTH: 33.53	Core Diam: NQII		

Collar Location

Latitude:	2126.03
Departure:	1975.81
Elevation:	1429.57

S U M M A R Y

0.00-21.30	volcaniclastics *
21.30-26.80	volcaniclastics *
26.80-27.20	massive hematite *
27.20-33.53	Hornblende Feldspar xtalline

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	80.00	-65.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	21.30	volcaniclastics	48234	1.00-2.00	1.00	0.005		44.0	193.0	385.0	50.0	18.0
		Redish-green, stockwork, wispy	48235	2.00-3.00	1.00	0.005		42.0	173.0	340.0	53.0	18.0
		hematite stringers 45°:qz-carb veining 25°	48236	3.00-4.00	1.00	0.005		54.0	193.0	230.0	52.0	18.0
		Frs=5/m :Vns =20/m	48237	4.00-5.00	1.00	0.005		41.0	119.0	75.0	91.0	18.0
		Moderate SI patches	48238	5.00-6.00	1.00	0.005		45.0	93.0	50.0	174.0	20.0
		Strong CL pervasive	48239	6.00-7.00	1.00	0.005		44.0	125.0	35.0	231.0	22.0
		Strong KS pervasive	48240	7.00-8.00	1.00	0.005		44.0	126.0	20.0	200.0	24.0
		Weak EP patches	48241	8.00-9.00	1.00	0.005		43.0	124.0	20.0	175.0	26.0
		Moderate HE stockwork	48242	9.00-10.00	1.00	0.005		41.0	132.0	25.0	113.0	22.0
		Moderate PY microveins	48243	10.00-11.00	1.00	0.005		40.0	129.0	10.0	141.0	22.0
		Weak QV vein	48244	11.00-12.00	1.00	0.005		35.0	113.0	35.0	102.0	16.0
		Moderate QC microveins	48245	12.00-13.00	1.00	0.005		34.0	82.0	20.0	77.0	18.0
		Mottled red green with locally strong epidote.	48246	13.00-14.00	1.00	0.005		38.0	85.0	10.0	71.0	22.0
		MINERALIZATION- 1% pyrite micorveins.	48247	14.00-15.00	1.00	0.005		39.0	110.0	25.0	89.0	24.0
	<0.00-21.30>	Trace MT microveins	48248	15.00-16.00	1.00	0.080		39.0	145.0	15.0	131.0	22.0
		MINERALIZATION- 1% pyrite micorveins.	48249	16.00-17.00	1.00	0.060		48.0	171.0	45.0	148.0	30.0
	<3.00-3.05>	Broken Core										
		Broken										
		Broken into small fragments.										
	<3.05-10.30>	volcaniclastics										
		Redish-green, foliated, wispy										
		hematite stringers 45°:qz-carb veining 45°										
		Frs=5/m :Vns =40/m										
		Moderate SI patches										
		Intense CL pervasive										
		Moderate KS pervasive										
		Weak EP patches										
		Strong HE stockwork										
		Weak PY microveins										
		Moderate QC microveins										
		Strongly hematitic and chloritic, foliated.										
	<11.20-11.80>	calcite vein										
		Pink calcite connecting HFBx clasts up to 4cm.,										
		forming 40% of zone.										
21.30	26.80	volcaniclastics	48250	17.00-18.00	1.00	0.005		47.0	116.0	40.0	126.0	40.0
		Fine grained, green, porphyritic	48251	18.00-19.00	1.00	0.005		39.0	88.0	30.0	94.0	30.0
		Frs=3/m	48252	19.00-20.00	1.00	0.005		35.0	171.0	35.0	155.0	36.0
		Weak SI patches	48253	20.00-21.00	1.00	0.005		36.0	197.0	35.0	204.0	50.0
		Weak CL pervasive	48254	21.00-21.50	0.50	0.040		38.0	468.0	40.0	284.0	44.0
		Moderate KS pervasive	48255	21.50-22.00	0.50	0.015		32.0	142.0	140.0	254.0	38.0
		Weak HE stringer	48256	22.00-22.50	0.50	0.030		24.0	77.0	275.0	117.0	50.0

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Strong PY vein	48257	22.50-23.00	0.50	0.005		21.0	71.0	50.0	169.0	22.0
		Weak QV microveins	48258	23.00-23.50	0.50	0.005		20.0	58.0	45.0	110.0	22.0
		Weak QC microveins	48259	23.50-24.00	0.50	0.005		20.0	52.0	35.0	89.0	20.0
		Limonite on fractures, generally dens. MINERALIZATION-	48260	24.00-24.50	0.50	0.005		17.0	43.0	35.0	70.0	22.0
		pyrite as coarse grained veinlets and as coarse	48261	24.50-25.00	0.50	0.005		15.0	46.0	25.0	70.0	20.0
		grained fracture filling to 4%, minor hematite.	48262	25.00-25.50	0.50	0.005		15.0	70.0	75.0	68.0	22.0
	<21.30-26.80>	?? MT vein	48263	25.50-26.00	0.50	0.005		13.0	57.0	25.0	61.0	22.0
		MINERALIZATION- pyrite as coarse grained veinlets and	48264	26.00-26.50	0.50	0.005		13.0	59.0	60.0	59.0	22.0
		as coarse grained fracture filling to 4%, minor										
		hematite.										
26.80	27.20	massive hematite	48265	26.50-27.20	0.70	0.025		41.0	1594.0	35.0	72.0	36.0
		Veined										
		Strong CL pervasive										
		Strong MT patches										
		Moderate KS pervasive										
		Intense PY vein										
		H zone generally narrow semi to massive hematite,										
		strong chlorite. MINERALIZATION- 6 to 7% pyrite, 1%										
		calcopyrite as coarse grained blebs, 3% magnetite as										
		coarse blebs.										
	<26.80-27.20>	?? MT blebs										
		1 % chalcopyrite - blebs										
		MINERALIZATION- 6 to 7% pyrite, 1% calcopyrite as										
		coarse blebs, 3% magnetite as coarse blebs.										
27.20	33.53	Hornblende Feldspar xtalline	48266	27.20-28.00	0.80	0.005		16.0	168.0		50.0	18.0
		Redish-green, heterolithic, stockwork	48267	28.00-29.00	1.00	0.005		19.0	400.0		38.0	14.0
		hematite stringers 45°:cleavage, foliation 20°	48268	29.00-30.00	1.00	0.005		15.0	149.0		35.0	20.0
		Frs=8/m :Vns =40/m										
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Strong HE stockwork										
		Weak PY disseminated										
		Weak QV microveins										
		Weak QC microveins										
		Local hematite alteration along fractures, giving the										
		rock the appearance of pseudo breccia.										
(eoh)												

HOMESTAKE MINING COMPANY

DRILL HOLE LOG

CL96-89

PROJECT: Clone	Date Commenced:	Contractor: JT THOMAS	Logged by: ERK
DRILL HOLE: CL96-89	Date Completed:		Geotech by: MBW
LENGTH: 44.20	Core Diam: NQII		

Collar Location

Latitude:	2125.76
Departure:	1974.36
Elevation:	1431.87

S U M M A R Y

0.00-25.50	volcaniclastics ***
25.50-29.40	Semi-massive hematite
29.40-36.00	volcaniclastics
36.00-44.20	Hornblende Feldspar xtalline **

DOWN HOLE SURVEYS

Depth	Azim	Inclin	Method
0.00	86.00	-76.00	

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
0.00	25.50	volcaniclastics	48269	1.00-2.00	1.00	0.005		35.0	135.0	30.0	43.0	24.0
		Redish-green, stockwork, heterolithic	48270	2.00-3.00	1.00	0.010		33.0	111.0	15.0	50.0	26.0
		hematite stringers 60°:qz-carb veining 60°	48271	3.00-4.00	1.00	0.005		31.0	89.0	20.0	54.0	30.0
		Frs=6/m :Vns =20/m	48272	4.00-5.00	1.00	0.005		36.0	113.0	30.0	54.0	32.0
		Moderate SI patches	48273	5.00-6.00	1.00	0.020		40.0	91.0		46.0	24.0
		Strong CL pervasive	48274	6.00-7.00	1.00	0.005		38.0	70.0	15.0	49.0	30.0
		Moderate KS pervasive	48275	7.00-8.00	1.00	0.005		40.0	143.0	10.0	49.0	26.0
		Moderate EP microveins	48276	8.00-9.00	1.00	0.005		33.0	240.0		50.0	28.0
		Moderate HE wispy	48277	9.00-10.00	1.00	0.445		96.0	221.0	45.0	56.0	32.0
		Moderate PY vein	48278	10.00-11.00	1.00	0.005		55.0	140.0	25.0	56.0	34.0
		Weak QV microveins	48279	11.00-12.00	1.00	0.005		39.0	131.0	30.0	58.0	34.0
		Moderate QC microveins	48280	12.00-13.00	1.00	0.005		37.0	91.0	25.0	55.0	28.0
		Mottled red green. MINERALIZATION- 2% pyrite as veins.	48281	13.00-14.00	1.00	0.005		35.0	102.0	40.0	72.0	24.0
<0.00-25.50>		Weak MT vein	48282	14.00-15.00	1.00	0.010		48.0	194.0	85.0	91.0	28.0
		MINERALIZATION- 2% pyrite as veins.	48283	15.00-16.00	1.00	0.005		150.0	96.0	75.0	118.0	34.0
<4.50-9.90>		MINERALIZATION- 5 to 6% pyrite.										
<4.50-9.90>		volcaniclastics										
		Moderate SI patches										
		Strong CL pervasive										
		Moderate KS pervasive										
		Strong HE wispy										
		Strong PY vein										
		Weak QV microveins										
		Strong QC microveins										
		Abundant hematite as stringers and stockwork, local										
		abunadant pyrite as veinlets within hematite rich										
		sections. MINERALIZATION- 5 to 6% pyrite.										
<11.90-14.80>		?? MT fine grained										
		MINERALIZATION- trace of fine grained pyrite.										
<11.90-14.80>		QUARTZ-CALCITE VEINS										
		Greenish-white, veined										
		Moderate SI patches										
		Moderate CL pervasive										
		Moderate KS pervasive										
		Weak HE patches										
		Weak PY disseminated										
		Moderate CV replaced phenocryst										
		Intense QC vein										
		Section is almost 50% quartz/calcite veining, broken										
		breccia, abundant replacement of feldspar phenocrysts										
		with calcite, calcite is slightly pink.										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		MINERALIZATION- traces of fine grained pyrite.										
<17.00-18.00>		Chlorite Streaming	48284	16.00-17.00	1.00	0.005		375.0	105.0	120.0	192.0	40.0
		Black, stylolitic	48285	17.00-18.00	1.00	2.330		707.0	221.0	735.0	238.0	38.0
		stringer										
		Intense CL stringer										
		Moderate HE vein										
		Strong PY patches										
		Zone of strong black chlorite with patches of coarse										
		grained pyrite along with the chlorite stringers,										
		minor sections of K-spar alteration with hematite.										
25.50	29.40	Semi-massive hematite	48286	18.00-19.00	1.00	0.280		556.0	839.0	370.0	262.0	34.0
		Blackish-red, stylolitic, stockwork	48287	19.00-20.00	1.00	0.005		143.0	1935.0	90.0	104.0	38.0
		stringer 25°:qz-carb veining 30°	48288	20.00-21.00	1.00	0.005		93.0	517.0	40.0	83.0	36.0
		Frs=3/m :Vns =50/m	48289	21.00-22.00	1.00	0.005		77.0	408.0	20.0	92.0	38.0
		Moderate SI patches	48290	22.00-23.00	1.00	0.010		56.0	217.0	10.0	70.0	36.0
		Strong CL pervasive	48291	23.00-24.00	1.00	0.013		55.0	224.0		65.0	36.0
		Strong KS pervasive	48292	24.00-25.00	1.00	0.005		46.0	190.0		58.0	36.0
		Strong HE stringer	48293	25.00-25.50	0.50	0.005		42.0	388.0		72.0	36.0
		Weak PY microveins	48294	25.50-26.00	0.50	0.065		25.0	175.0		94.0	26.0
		Weak QC microveins	48295	26.00-27.00	1.00	0.005		26.0	331.0	10.0	234.0	30.0
		H zone generally weak hematite stringer zone. Mottled,	48296	27.00-27.50	0.50	0.110		35.0	149.0	55.0	935.0	40.0
		heterolithic, wispy hematite.	48297	27.50-28.00	0.50	0.025	0.60	54.0	153.0	50.0	776.0	32.0
<27.30-27.40>		Blackish-red, stylolitic										
		stringer 25°										
		Intense CL pervasive										
		Intense HE stringer										
		Semi-massive hematite stringers to 25 degrees, strong										
		pervasive chlorite.										
<29.00-29.40>		Blackish-red, stockwork	48298	28.00-28.50	0.50	0.005		16.0	39.0	10.0	156.0	26.0
		Intense CL pervasive	48299	28.50-29.00	0.50	0.005		14.0	64.0	5.0	114.0	24.0
		Intense HE stockwork										
		Semi-massive stockwork hematite, strong pervasive										
		chlorite.										
29.40	36.00	volcaniclastics	48300	29.00-29.50	0.50	0.005		18.0	103.0	15.0	159.0	18.0
		Redish-green, stockwork, massive	48301	29.50-30.00	0.50	0.005		31.0	53.0	10.0	427.0	18.0
		vein 60°:cleavage, foliation 45°	48302	30.00-30.50	0.50	0.095		31.0	71.0	10.0	240.0	20.0
		Frs=3/m :Vns =20/m	48303	30.50-31.00	0.50	0.005		16.0	87.0		135.0	26.0
		Moderate SI patches	48304	31.00-32.00	1.00	0.005		13.0	138.0	15.0	111.0	26.0
		Strong CL pervasive	48305	32.00-33.00	1.00	0.005		14.0	85.0	10.0	120.0	28.0
		Strong EP pervasive	48306	33.00-34.00	1.00	0.005		16.0	50.0	15.0	173.0	20.0
		Moderate PY vein										
		Moderate QC microveins										

FROM	TO	DESCRIPTION	Sample	INTERVAL	WIDTH	Au g/T	Ag ppm	Co ppm	Cu ppm	As ppm	Zn ppm	Pb ppm
		Massive hornblende feldspar breccia, stockwork, moderate to strong patchy silica, moderate to strong pervasive chlorite, moderate to strong pervasive K-spar, moderate to strong veined pyrite, moderate to strong quartz/calcite veining.										
		<30.40-30.45> pyrite vein or veinlet Aphanitic, yellow, veined Moderate SI patches Moderate CL pervasive Strong KS pervasive Intense PY vein Weak QC microveins										
		Coarsely crystalline, weak calcite/chlorite veins to 0.5mm., local strong K-spar alteration.										
36.00	44.20	Hornblende Feldspar xtalline	48307	38.00-39.00	1.00	0.010		17.0	77.0	50.0	104.0	32.0
		Redish-green, stockwork, heterolithic	48308	39.00-40.00	1.00	0.010		14.0	74.0	15.0	55.0	26.0
		qz veining 10°:cleavage, foliation 70°	48309	40.00-41.00	1.00	0.010		24.0	106.0	35.0	46.0	30.0
		Frs=3/m :Vns =15/m										
		Moderate SI patches										
		Moderate CL pervasive										
		Moderate KS pervasive										
		Moderate HE stockwork										
		Moderate PY patches										
		Moderate QC microveins										
		Indistinct contact, local strong calcite/hematite veinlets at 36.80 to 37.50m.										
		<38.80-38.85> ?? MT vein MINERALIZATION- strong pyrite vein.										
		<38.80-38.85> pyrite vein or veinlet Aphanitic, yellow, veined Intense PY vein MINERALIZATION- strong pyrite vein.										
		<39.00-41.00> ?? MT vein MINERALIZATION- sparse pyrite veinlets and coarse grained patches.										
		<39.00-41.00> volcaniclastics Veined Moderate PY vein MINERALIZATION- sparse pyrite veinlets and coarse grained patches.										
(eoh)												