

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS
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DRILLING ASSESSMENT REPORT

ON THE

SOUP PROPERTY

N.T.S.: 94D/8

OCTOBER, 1995

SOUP PROPERTY RECEIVED OCT 20 1995 M.R. # VALUE

FILMED

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Owner/Operator: Hemlo Gold Mines Inc.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

24,099

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1.0 INTRODUCTION

During the period of July 1 to August 4, 1995, Hemlo Gold Mines Inc. and Britton Bros. Diamond Drilling Ltd. conducted a 4 hole 317.6 meter drill programme of the Soup Property to test magnetic highs associated with gold anomalous magnetite rich outcrops on surface, gold anomalous talus fines, and radiometric anomalies (from an airborne survey flown in 1993). This report describes the entire 4 hole drill programme although only work performed between July 1 and July 31, 1995 is being applied for assessment.

1.1 Location and Access

The Soup property is located approximately 190 km north-northeast of Smithers, B.C. on N.T.S. Mapsheet 94D/8 in the Omineca Mining division (Drawing 1).

The drillers and support crew were housed at a temporary exploration camp located at the southeast end of Johannson Lake on the Omineca mining road, a distance of 13 km north-northeast of the Soup claim block. Crew changes and drill moves were achieved via a helicopter based at Johannson Lake.

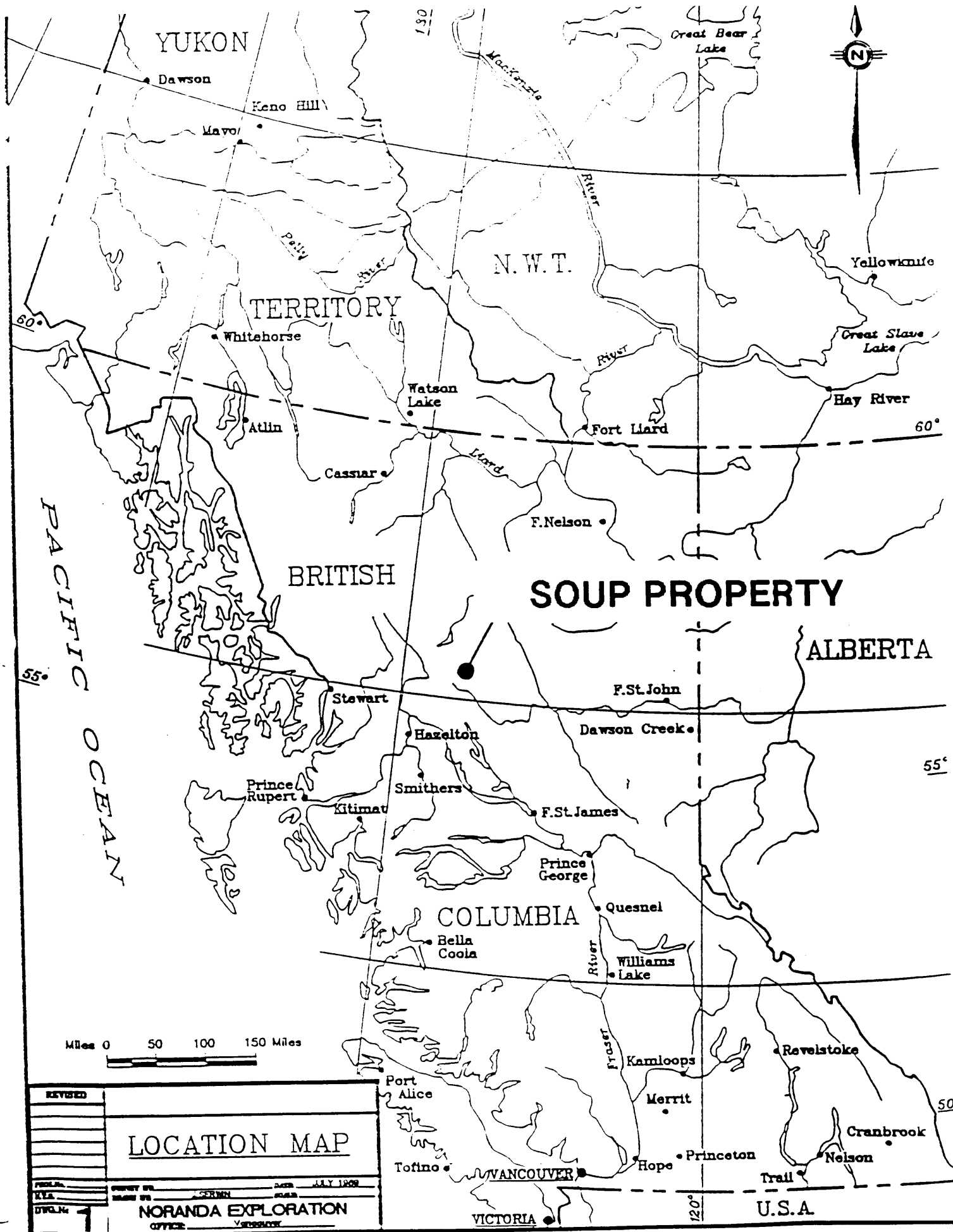
1.2 Topography and Physiography

The Soup property is situated within the Osilinka Ranges and lies on steep south and southwest facing slopes which are drained by small, intermittent creeks flowing into Kliyul Creek. Much of the property is devoid of vegetation due to the steepness of the terrain and elevations which range from 4330 feet in the valley bottom to 7500 feet along the northwest trending ridge located in the eastern section of the claims.

1.3 History

Below is a brief outline of documented work performed on the Soup property and surrounding areas, in chronological order:

- 1930's: Consolidated Mining and Smelting Company explored for lode gold occurrences to the east and southeast of the Soup at Porphyry Creek, Croydon Creek and Granite Basin.
- 1946-48: Springer Sturgeon Gold Mines explored auriferous quartz veins known as the Solo, Bruce and Ginger B occurrences.



SOUP PROPERTY

LOCATION MAP

REVISED	
LOCATION MAP	
FILE NO.	DATE JULY 1909
U.S.A.	
U.V.C.M. 7	
NORANDA EXPLORATION OFFICE	

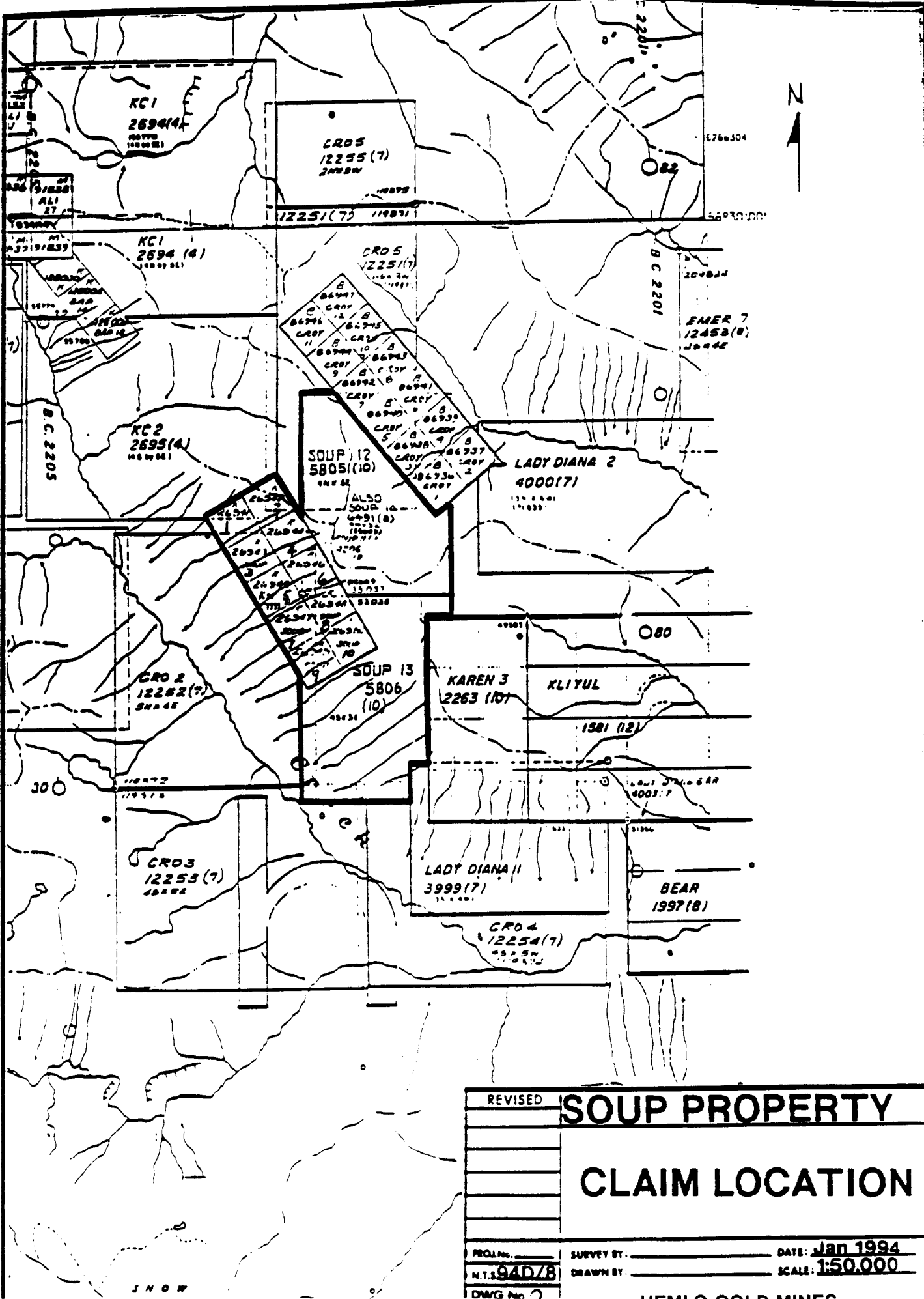
- 1963: This year saw the beginning of exploration on the Davie Creek moly prospect which continued through to 1983 by such companies as Riocanex, Teck, Chevron and Getty Canadian Metals.
- 1964: Southwest Potash Corp. (Amax) conducted mapping and chip sampling of the southern-most Soup skarn horizons.
- 1965: Mapping by K.C. McTaggart revealed the skarn horizon varied in width from 10 to 100 feet and extended discontinuously for over 8,000 feet.
- 1971: Three x-ray holes (70 feet) were drilled into the skarn horizon at one location on the Soup 10 claim by Falconbridge Nickel Mines Ltd.
- 1975: An ore microscopy study was performed on a number of mineralized skarn samples by A.J. Sinclair.
- 1976: A magnetic profiling and modeling survey was conducted by A.J. Sinclair which revealed a stratiform magnetic occurrence with dips of 20 to 30° E.
- 1977: A rock chip sampling programme was conducted by BP Minerals along eleven cross-lines through the skarn horizons.
- 1980-81: Vital Resources Ltd. optioned the claims and subsequently performed a limited soil survey across the skarn horizon stratigraphy.
- 1982: Noranda Exploration Company, Limited optioned the claims from Vital and conducted soil and rock chip sampling as well as magnetometer surveying.
- 1984: Detailed mapping as well as talus-fine and rock chip geochemistry was done by BP Resources Canada Ltd. The geochem survey revealed anomalous Au zones exist stratigraphically above the skarn horizons.
- 1986-87: A detailed magnetometer survey and systematic rock-chip sampling was completed by Lemming Resources Ltd. One new skarn zone was discovered as mineralized talus.
- 1989: A seven hole (1112 feet) diamond drill hole programme was completed by Athlone Resources Ltd. Drilling was focused on skarn horizons as well as northeast-southwest crosscutting structural features which contained discordant magnetite-pyrite-chalcopyrite mineralization.

- 1990: Teck Explorations Ltd. completed a detailed large-scale mapping and prospecting programme as well as systematically sampling the skarn occurrences in the southeast portion of the property. Teck recommended further mapping to assess the porphyry Cu-Au potential on the property.
- 1993: Noranda conducted a 288 test pit and 6 hole reverse circulation drilling programme on the Kliyul property as well as cursory mapping and sampling of the Joh, Croydon, Darb and Soup properties.
- 1994: Noranda Exploration Co., Ltd. for Hemlo Gold Mines Inc. established a slope corrected grid upslope of the oxidized magnetite-pyrite-silica occurrences and completed a detailed mapping and sampling programme as well as the collection of talus fines.

1.4 Claims

The Soup property is comprise of 10, 2-post mineral claims (10 units), 1 fractional claim (1 unit), and 3, 4-post mineral claims (36 units), for a total of 47 units (Drawing 2). A list of the claims with corresponding tenure number, anniversary date and owner follows.

<u>CLAIM NAME</u>	<u>TENURE NO.</u>	<u>UNITS</u>	<u>ANNIVERSARY DATE</u>	<u>OWNER</u>
Soup 1	244014	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 2	244015	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 3	244016	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 4	244017	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 5	244018	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 6	244019	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 7	244020	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 8	244021	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 9	244022	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 10	244023	1	August 7, 1998	Hemlo Gold Mines Inc.
Soup 11 Fr	238499	1	August 15, 1997	Hemlo Gold Mines Inc.
Soup 12	238688	12	October 5, 1997	Hemlo Gold Mines Inc.
Soup 13	238689	12	October 5, 1997	Hemlo Gold Mines Inc.
Soup 14	238824	12	August 13, 1997	Hemlo Gold Mines Inc.



S N O W

1.5 Economic Potential

The narrow discontinuous, erratically mineralized magnetite replacement horizons which occur on the Soup property and dip eastward do not provide a very practical target for an economic deposit. However, the potential for a bulk mineable gold associated with stockworks/breccias zones along major structural breaks may exist on the property. Previous drilling of a stockwork/breccia zone, completed by Athlone Resources in 1989, which intersected a high grade section of 0.229 opt Au, 0.47% Cu/15 feet and 1.427 opt Au, 0.17% Cu/10.5 feet (DDH-89-1 and 2 respectively), and chip sampling of outcrops by Hemlo in 1994 which returned 8.5 gpt Au/1m and 11.0 gpt Au/ 2m lend credence to this possibility.

1.6 Survey Control

The surveying of drill hole collars during this programme was conducted using the slope corrected grid established by Noranda in 1994. Two of the lines, L622N and L625N, were re-established during the 1995 field programme as some of the station markers had disappeared during the winter of 1994/95.

1.7 Sampling

Sampling of the drill core was done primarily at 1.0m intervals. Interval length was dependent on the lithologies as well as the abundance of mineralization encountered. All samples were sent to the Noranda Exploration Laboratory at Unit #1, 7550-76th Street, Delta, B.C.

Refer to Appendix I for laboratory analytical techniques and Appendix II for geochemical results from drill core.

2.0 GEOLOGY

2.1 Regional

The Soup property is situated within the Intermontane Belt which is comprised of Upper Triassic to Lower Jurassic island arc volcanics, volcanoclastics and minor sediments of the Takla Group. The Takla Group hosts such Cu-Au porphyry deposits as Mt.

Milligan and Kemess. In the Soup area the dominantly volcanic package has been intruded by Jura-Cretaceous aged diorites, monzonites and syenites associated with the Hogem batholith (Drawing 3).

Prominent structural features in the area include NW, E-W, N-S and NNE-SSW trending fault systems.

2.2 Property Geology

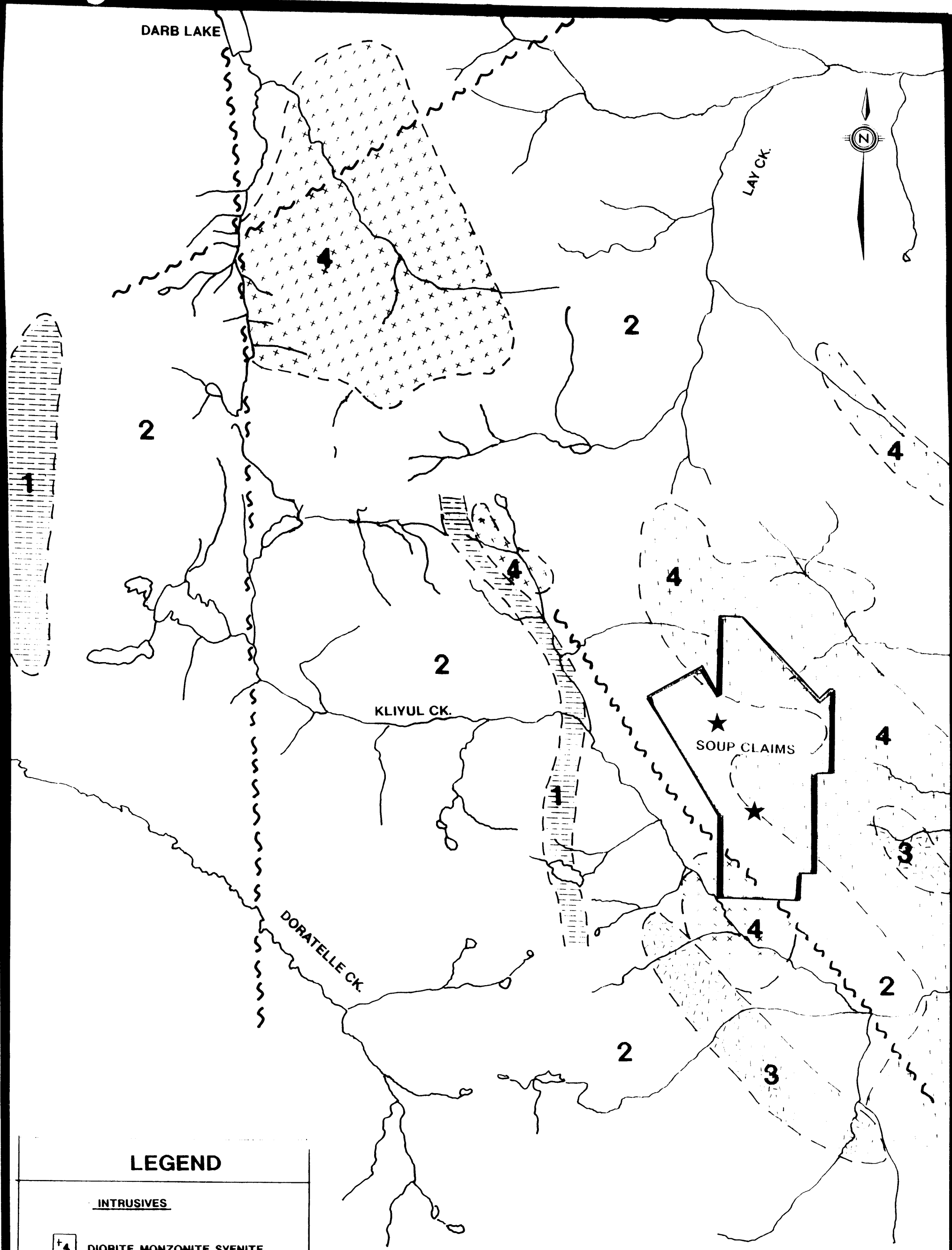
Geological mapping of the Soup property was conducted during the 1994 programme at a 1:5,000 scale on a flagged and picketed, metrically chained, slope corrected grid. Topographic base maps and airphotos were used as a control. The resulting geology map (Drawing 4) was produced at the completion of the 1994 programme and there was no additional mapping in 1995.

The mapped area is underlain by a late Triassic aged volcanic sequence of Takla Group andesites intruded by Triassic-Jurassic aged gabbro/pyroxenites, monzonites and diorites.

The lowermost volcanic unit (Unit 1) is an andesitic tuff. This consists of massive, medium green coloured, fine to medium grained crystal, lithic, and ash tuffs. The crystals are predominantly white feldspar, range from 1 - 3 mm in size, and are often broken. Pyroxene crystals occur only rarely. Fragments observed are monolithic, feldspar rich volcanoclastics similar to the host matrix, and vary in size from 2 mm to 1 cm. This unit dips into the hillslope at an angle of 20°-30° NE.

Stratigraphically above the andesitic tuff unit is a thick succession of augite porphyritic/ feldspar phyric flows and flow breccias (Unit 2). Augite and feldspar vary in relative abundance to each other, with the result that in some locations augite is of rare occurrence and feldspar is the dominant phenocryst. The augite phenocrysts vary in size from < 1 mm to 5 mm whereas the feldspar crystals are all < 2 mm. Locally the augite porphyry is very coarse grain and resembles a coarse grain diorite. This unit weathers gray-green and exhibits blocky to subrounded talus boulders as well as forming steep bluffs and cliffs. Magnetism of this unit varies from moderate to strong. Of local occurrence are minor interbeds of medium to fine grained sericite, chlorite +/- carbonate altered tuffaceous material.

Intruding the above stratigraphy are three main rock types (pyroxenite - Unit 3, diorite - Unit 4 and monzonite - Unit 6) which occur as small stocks, plugs and dykes.



LEGEND

INTRUSIVES

 DIORITE, MONZONITE, SYENITE

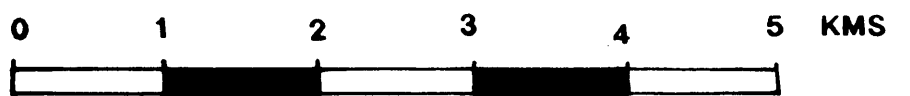
 ULTRAMAFIC ROCKS (PYROXENITE)

TAKLA VOLCANICS (UP. TRIASSIC)

 ANDESITES

 SEDIMENTS (ss. arg. lst.)

**REGIONAL GEOLOGY
SOUP CLAIM AREA**



★ OCCURRENCES

SCALE 1:50,000

The pyroxenite outcrops at the southeast end of the mapped grid, and occurs as a small plug and as a dyke like body. It is coarse grained, dark green, dense and very magnetic. The magnetite occurs as medium to coarse grain disseminations, clots and fracture fillings.

The most abundant intrusive phase observed in outcrop is an equigranular, fine to medium grain, melanocratic diorite, with 2-3 mm mafic phenocrysts set in a pale green to white, plagioclase rich, fine grain groundmass. This unit is moderately to strongly magnetic and exhibits epidotization of feldspars as well as epidote along fractures. Locally malachite, and more rarely azurite, are observed along fracture surfaces.

The monzonite occurs throughout the mapped area as dykes striking north, northwest, and east-west. It is leucocratic, variably magnetic and locally has a distinctive porphyritic texture of 2 - 3 mm feldspar crystals in a gray to pinkish gray, fine grain matrix. Where feldspar phenocrysts are absent 2 - 4 mm hornblende lathes are visible, locally weakly aligned. Field relationships show the porphyritic phase of the monzonite is often in close proximity to magnetite-pyrite-quartz gossanous/stockwork zones.

Mineralization on the property occurs as follows:

1. Quartz veins to 0.5 m wide containing chlorite, epidote, malachite, azurite, chalcopyrite, pyrite and locally minor magnetite. These occur mainly within the diorite (Unit 4).
2. Malachite +/- azurite stained fractures occur mainly within the augite porphyritic feldspar phyric andesite (Unit 2) but are locally present within the diorite.
3. Magnetite-pyrite-quartz gossanous zones occur along the contact zone between the lower andesitic tuffs (Unit 1) and the overlying augite porphyritic feldspar phyric flows. These zones locally display a boxwork texture. Previous workers have mapped these as skarn horizons, and it is these zones which have received most of the attention in the past.
4. Magnetite-minor pyrite-quartz stockwork zones hosted by augite porphyritic feldspar phyric andesite on the hanging wall of a porphyritic monzonite dyke. This mineralizing type outcrops near grid co-ordinates 622N-816E and was drilled by Athlone Resources in 1989. Hole 89-2 returned results of 3.31 gpt Au over 43.5 meters.

3.0 DIAMOND DRILLING PROGRAM

The main focus of the 1995 diamond drilling program was to test the supposition formulated in 1994 that the magnetite-(pyrite)-quartz stockwork zones represent leakage

along fracture sets and shear planes, with their origin in the magnetite-pyrite-quartz gossanous zones, the latter emplaced along zones of weakness, i.e. bedding planes and lithologic contacts. This would suggest that the zones coalesce at depth, thereby forming a viable economic target.

3.1 Presentation of drill hole data

Drilling parameters for holes 1 to 4 are listed in the table below. Refer to Drawings 5 to 10 for plans and sections of these holes. Sections show gold results (ppb) with corresponding sample widths in meters. Geochemical results from drill core are found in Appendix II.

HOLE #	TOTAL LENGTH (meters)	COORDINATES NORTH EAST	AZIMUTH (TRUE)	DIP	DATE COLLARED	DATE COMPLETED
HS-95-1A*	22.9	62217 81745	205	-65	July 24,1995	July 25,1995
HS-95-1	62.8	62217 81744	205	-65	July 25,1995	July 6,1995
HS-95-2	69.5	62217 81746	215	-70	July 26,1995	July 27,1995
HS-95-3	18.3	62515 81800	240	-60	July 27,1995	July 29,1995
HS-95-4	144.1	62194 81647	214	-75	Aug. 4 ,1995	Aug. 6,1995

* HS-95-1A was lost at a depth of 22.9m with all rods and the core barrel left in the hole. HS-95-1 is the second attempt.

3.2 Synopsis of Drill Holes

Complete drill logs can be found in Appendix III.

DDH-HS-95-1A and 1

This hole was drilled to test coincident high airborne and ground magnetic anomalies, gold anomalous talus fines (>300 ppb Au), and an anomalous airborne K-count, in an area of magnetite-quartz stockwork outcrops which returned surface values of 8500 ppb Au/1.0m and 11000 ppb Au/2.0m, upslope from Athlone Resources hole 89-2 (3.3 gpt over 43.5 m).

After 3.0m and 9.5m respectively the holes began in an augite porphyritic feldspar phyric andesite. This unit continues to the bottom of the hole with minor variations in lithology, so that some intervals are described as feldspar phyric or feldspar porphyritic andesite (where augites are rare to absent), and other intervals are described as augite porphyritic andesite (where augite phenocrysts are dominant). These distinctions do not

have sharply defined boundaries and grade into one another over lengths of up to 30 cm. From 47.7 m to 51.6 m and again from 52.2 m to 53.4 m the augite crystals become very coarse and are set in a lighter coloured fine grained groundmass so that the andesite has a coarse grain dioritic texture.

The core is magnetic throughout it's length, with magnetic intensity varying from weak to moderate, and local sections are highly oxidized and fractured. Most of the core is pervasively altered to chlorite which varies in intensity from very weak to strong, and feldspars are weakly altered to epidote. Epidote also occurs as a fracture fill. Carbonate is present in almost all fractures, as well as in <5 mm veinlets, the latter may also contain quartz and/or epidote. From 43.0 m to 48.0 m local sections contain moderate pervasive carbonate.

The best results from this hole were 1 gpt Au/1.2 m (32.2 - 33.4 m) and 0.8 gpt Au, 0.22% Cu /1.3m (45.8 - 47.1 m), both from highly oxidized rubbly sections, the latter exhibiting malachite/azurite on fractures.

The hole reached a depth of 62.8m before being abandoned as the rods had seized.

DDH-HS-95-2

The second hole was drilled from the same pad as DDH-HS-95-1 and had the same target as described above. As the first hole did not come close to reaching the target depth of 225 meters it was hoped that by increasing the dip of the hole and by swinging the head away from the gully this second hole would encounter less broken ground and reach the target depth.

After 6.1m of overburden augite porphyritic feldspar phyric andesite was encountered, continuing to the bottom of the hole. As before, lithologies change throughout and are similar as those described for DDH-HS-95-1. The only difference is a short section of diorite from 24.1 to 24.4 meters.

The highest value obtained from this hole is 1.5 gpt Au/ 1.0m (34.7 -35.7), from a section of oxidized core with trace amounts of azurite on fracture surfaces. This interval intersects the same mineralized horizon as was intersected in DDH-HS-95-1 from 32.2 to 33.4 meters.

Despite changing both the dip and azimuth of this second hole it only reached a depth of 69.5 m before it too was stopped as the rods seized.

DDH-HS-95-3

This hole was located 350m northwest of DDH-HS-95-1 and 2 and was targeted on a coincident talus fine anomaly of >300 ppb Au and anomalous ground magnetics. There are no exposed outcrops within the targeted area.

As in the case of the previous two holes the bedrock encountered in this hole (4.6 m overburden) is an augite porphyritic feldspar phyric andesite. With the exception of one 0.5m interval the lithologies are as described previously. From 8.0 to 8.5m an augite porphyritic lapilli tuff is intersected, with absorbed 3 cm fragments of feldspar phyric or augite porphyritic andesite within a feldspar phyric augite porphyritic andesite matrix.

No anomalous results were returned from this hole.

The hole was stopped short, at a depth of 18.3m , as due to unseasonably cold temperatures and resulting lack of snow melt, the water source dried up.

DDH-HS-95-4

This hole had the same target as DDH-HS-95-1 and 2 but was collared 70m lower in elevation. While waiting for additional snow melt to re-fill the pond , a period of 6 days, this lower set-up was constructed at a natural break in slope, and was located immediately above the gold anomalous magnetite-quartz stockwork outcrop.

Bedrock was intersected at a depth of 2.1m, and as before is an augite porphyritic feldspar phyric andesite with varying lithologies. This is the predominant rock type throughout, but is locally cut by monzonite or andesite dykes, or is intruded by minor intervals of diorite.

From 2.1 to 15.2 meters core recovery is < 50% , with one 3m interval attaining just 16%. However below 15.2m the recovery increases to 90% or greater, except for the interval 80.7m to 81.0m where only fine grain sand was recovered and a major fault is inferred.

From 21.2 to 38.0 meters the augite porphyritic feldspar phyric andesite is host to a magnetite-quartz- pyrite stockwork zone. The interval starts with a stockwork of < 1.5 cm magnetite-quartz veins in a host containing 3% disseminated magnetite. This vein density increases downhole so that by 27.3m there are no distinct veins visible and the core is completely flooded by magnetite-quartz. Where quartz is absent the magnetite is accompanied by intense chlorite alteration. Local sections are highly oxidized, however the majority of the core is a very dark green to black colour. The interval ends with a calcite flooded 3 cm "vein" at 20° to core angle, an angle which is consistent with the orientation of the magnetite-silica outcrop seen on surface.

Another highly oxidized section was intersected from 45.0 to 48.2 meters. No distinct magnetite-quartz veins are visible but the interval contains approximately 25% disseminated magnetite, with magnetite abundance increasing in the envelope of malachite/azurite coated fractures.

The highest values obtained from drill core are restricted to the two magnetic zones described above. One meter sections returned 17 gpt Au, 0.15% Cu (29.9-30.9m), 11.4 gpt Au, 0.22% Cu (30.9- 31.9m), 8.8 gpt Au, 1.3% Cu (35.9-36.9m), 10.8 gpt Au, 0.24% Cu (36.9-38.0m), and 19.7 gpt Au, 0.6% Cu (47.0-48.2m). From 27.6 to 38.0 meters and from 45.0 to 48.2 meters all samples contained > 2.45 gpt Au. Averages for these intervals are 7.02 gpt Au/0.36% Cu and 10.86 gpt Au/0.40% Cu respectively, but with a zone intersection of 20° to core angle the true thickness of these intervals become just 3.56 meters and 1.09 meters respectively.

4.0 SUMMARY

1. Drilling of the Soup property in 1995 failed to reach target depths due to extremely fractured ground, and unseasonably cold weather which contributed to the drying up of the snow melt water source.
2. All holes intersected varying lithologies of augite porphyritic feldspar phyric andesite, grading from augite dominant to augite poor. Within this unit sharp lithologic contacts were seldom seen.
3. DDH-HS-95-1,2 and 4 were drilled on the same target but were collared at different elevations. This results in an untested section of stratigraphy, upslope from DDH-HS-95-4, of approximately 46 meters.
4. DDH-HS-95-1 and 2 were stopped at a depth of 62.8 and 69.5m respectively due to badly broken ground. Corresponding intersections of 1.0 gpt Au /1.2m and 1.5 gpt Au/1.0m were the only anomalous intervals.
5. DDH-HS-95-4 intersected 3.56 meters (true width) of 7.02 gpt Au/0.40% Cu (27.6-38.0m) and 1.09 meters (true width) of 10.86 gpt Au/0.40% Cu (45.0-48.2m), but the remainder of the hole contained no significant values.
6. DDH-HS-95-3 only reached a depth of 18.3 meters before the water source dried up, and no anomalous sections were intersected.
7. As the magnetite-pyrite-quartz gossanous zone was not intersected, the relationship between it and the stratigraphically higher magnetite-pyrite-quartz stockwork zone remains unknown.

5.0 RECOMMENDATIONS

The 1995 drilling program of the Soup property indicates that although the magnetite-pyrite-quartz stockwork zone has good gold and copper grades it has a narrow width and is of limited extent. Further drilling is not recommended.

REFERENCES

1. Assessment Report #675: Geology of the Soup Claims, K.C. McTaggart, 1965.
2. Assessment Report #5562: Mineralogical Study of Soup Claims, A.J. Sinclair, 1975.
3. Assessment Report #5985: Ground Magnetics, Soup Claims, A.J. Sinclair, 1976.
4. Assessment Report #6410: Geochemical Survey, Soup Claims, B.P. Minerals, 1977.
5. Assessment Report #7033: Litho geochemistry, Soup Claims, A.J. Sinclair, 1978.
6. Assessment Report #9485: Geochemistry, Soup Claims, Vital Resources, 1981.
7. Assessment Report #10,743: Geochem, Geophysics, Geology, Soup Claims, Noranda Exploration, 1982.
8. Assessment Report #13,315: Geology, Geochem, Soup Claims, B.P. Minerals, 1984.
9. Assessment Report #15,201: Magnetometer, Rock Sampling, Soup Claims, C.M. Rebagliati, 1986
10. Assessment Report: Geological, Geochemical, Linecutting Report on the Soup Property, Hemlo Gold Mines Inc., October, 1994..
11. Assessment Report: Geological, Geochemical and Geophysical Assessment Report on the Soup Report, Hemlo Gold Mines Inc., December, 1994.
12. Summary Report on the Soup Claims, Rebagliati Geological Consulting Ltd. for Athlone Resources Ltd., 1988.
13. Summary Report on the Soup Claims (Drilling), Rebagliati Geological Consulting Ltd. for Athlone Resources Ltd., 1989.

14. Exploration Report on the Soup Property,
Teck Explorations Ltd., 1991.
15. Lord, C.S.: McConnell Creek Map Area, B.C., G.S.C.
Memoir 251, 1948.
16. Roots, E.F.: Aiken Lake Map Area, B.C., G.S.C. Memoir
274, 1954.

APPENDIX I

LABORATORY ANALYTICAL TECHNIQUES

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver.

Preparation of Samples:

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for geochemical analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples * from constant volume), are analysed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples:

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.4 g and chemical quantities are doubled relative to the above noted method for digestion.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn can be determined directly from the digest (dissolution) with a conventional atomic absorption spectrometric procedure. A Varian-Techtron, Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method:

Antimony - Sb: 0.2 g sample is attacked with 3.3 ml of 6% tartaric acid, 1.5 ml conc. hydrochloric acid and 0.5 ml of conc. nitric acid, then heated in a water bath for 3 hours at 95°C. Sb is determined directly from the dissolution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.3 g sample is digested with 1.5 ml of perchloric 70% and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL is used to measure arsenic content in the digest.

Barium - Ba: 0.1 g sample digested overnight with conc. perchloric, nitric and hydrofluoric acid; Potassium chloride added to prevent ionization. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest with an AA-475 complete with EDL.

Gold - Au: 10.0 g sample is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with MIBK from the aqueous solution. AA is used to determine Au.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with the use of a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot from a perchloric-nitric decomposition, usually from the multi-element digestion, is buffered. The aqueous solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

N.B.: If additional elemental determinations are required on panned samples, state this at the time of sample submission. Requests after gold determinations would be futile.

LOWEST VALUES REPORTED IN PPM:

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01
Cd - 0.2	Mo - 1	Sb - 1	W - 2
Co - 1	Ni - 1	As - 1	U - 0.1
Cu - 1	Pb - 1	Ba - 10	
Fe - 100	V - 10	Bi - 1	

APPENDIX II

GEOCHEMICAL RESULTS FROM DRILL CORE

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 150 (HEMILO)

Geol.: GG

Date received: SEP. 05

LAB CODE: 9509-006

Material: 14 Cores (HS95-3/4)

Sheet: 1 of 1

Date completed: SEP. 07

R #34606

Remarks: * Sample screened @ -35 MESH (0.5 mm)

‡ Organic, Δ Humus, S Sulfide

Au - silt & soil, 15.0 g sample digested with aqua-regia and determined by A.A. (D.L. 2 PPB); Rx, 10.0 g/AR/AA (DL 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
88	091301	5	0.2	5.16	2	136	0.5	5	5.21	0.7	70	23	21	119	6.02	0.20	10	12	1.61	746	1	0.07	18	0.12	2	287	0.56	238	41
89	091302	5	0.2	4.74	4	131	0.5	5	4.71	0.5	70	23	19	144	5.45	0.22	12	11	1.51	663	1	0.05	17	0.11	2	255	0.56	242	40
90	091303	5	0.2	5.14	3	245	0.5	5	4.73	0.7	65	20	20	90	6.18	0.45	13	12	1.55	673	1	0.06	16	0.11	2	243	0.53	240	43
91	091304	5	0.2	5.38	2	248	0.5	5	4.91	0.3	61	29	17	133	6.01	0.41	10	12	1.71	658	1	0.05	18	0.10	2	279	0.54	250	43
92	091338	30	0.2	4.55	2	90	0.5	5	4.22	0.4	63	36	27	245	6.19	0.28	10	12	1.95	594	1	0.06	22	0.11	2	248	0.43	228	29
93	091339	25	0.2	4.80	2	439	0.5	5	3.77	0.2	62	26	27	226	7.09	1.19	12	15	2.59	630	1	0.06	25	0.10	2	238	0.46	250	36
95	091340	15	0.2	4.41	2	82	0.5	5	5.56	0.2	58	28	41	196	7.73	0.27	14	11	2.02	704	1	0.08	41	0.12	2	222	0.54	276	36
96	091341	40	0.2	3.87	2	117	0.4	5	3.01	0.4	52	45	41	437	7.89	0.38	13	12	2.21	559	9	0.11	33	0.12	2	198	0.51	255	37
97	091342	35	0.2	3.45	2	167	0.4	5	2.02	0.2	43	50	82	859	6.52	0.48	14	13	2.78	592	6	0.08	46	0.09	2	148	0.39	219	40
98	091343	5	0.2	3.62	2	245	0.4	5	2.59	0.2	51	18	19	289	6.69	0.57	14	12	2.01	837	1	0.09	16	0.11	2	142	0.51	249	54
101	091344	5	0.2	3.35	3	198	0.4	5	2.73	0.7	50	13	24	114	6.20	0.47	15	11	1.93	760	1	0.08	14	0.11	2	140	0.48	246	43
102	091345	5	0.2	5.46	2	250	0.4	5	4.13	0.4	43	18	19	114	6.78	0.47	13	13	2.41	793	1	0.05	16	0.08	2	216	0.42	278	50
103	091346	5	0.2	5.51	2	320	0.5	5	3.08	0.5	46	64	22	295	7.67	0.53	14	16	3.25	1101	1	0.04	25	0.10	2	170	0.48	306	65
104	091347	5	0.2	3.80	2	243	0.4	5	3.01	0.5	44	23	69	216	6.59	0.60	11	11	2.47	677	2	0.09	38	0.09	2	153	0.48	252	44

HEMLO GOLD MINES INC.

PROJECT # 150

N.T.S. 94D8

LAB REPORT # _____

DATE Aug. 13/95

PROJECT SOUP (Drill holes)

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION (meters)	% SULPH.	TYPE	WIDTH (m)								SAMPLED BY
	HS-95-3											
91301	6.3-6.8		Core	0.5								J.H
91302	10.0-11.1		Core	1.1								JH
91303	11.1-12.2		Core	1.1								JH
91304	15.6-16.6		Core	1.0								JH
	HS-95-4											
91338	58.7-59.7		Core	1.0								G.M.
91339	62.0-64.0		}	2.0								}
91340	72.7-74.7			2.0								
91341	74.7-76.7			2.0								
91342	76.7-77.7			1.1								
91343	91.4-93.4			2.0								
91344	93.4-94.5			1.1								
91345	122-125			3.0								
91346	125-128		Core	3.0								G.M
91347	97.5-100.6			3.1								

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP 150 (HEMLO)
 Material: 58 Cores (HS95-1/2/4)
 Remarks: * Sample screened @ -35 MESH (0.5 mm)

Geol.: GG/E
 Sheet: 1 of 2

Date received: AUG. 16
 Date completed: AUG. 22

LAB CODE: 9508-018
 R #3401/4

* Sample screened @ -35 MESH (0.5 mm)

¹ Organic, ^Δ Humus, ^S Sulfide

Au - silt & soil, 15.0 g sample digested with aqua-regia and determined by A.A. (D.L. 2 PPB), Rx, 10.0 g:AR/AA (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents

N.B - The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bc ppm	Bi ppm	Ca %	Cl ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
127	91276 core	5	0.2	4.05	2	230	0.4	5	3.56	0.4	69	28	157	136	5.43	0.66	12	13	2.08	558	1	0.06	106	0.12	3	240	0.35	180	61
128	91277	5	0.2	4.65	2	369	0.4	5	4.70	0.4	77	24	70	129	6.30	0.63	14	12	1.84	922	1	0.09	24	0.10	6	239	0.42	231	76
129	91278	40	0.2	4.78	2	365	0.4	5	4.41	0.2	77	24	35	143	6.65	0.58	14	12	1.94	855	1	0.09	23	0.11	4	248	0.44	252	82
130	91279	145	0.2	2.76	4	159	0.4	5	5.09	0.5	76	21	90	73	5.47	0.28	13	13	2.65	1157	1	0.07	34	0.08	2	81	0.30	206	67
131	91280	110	3.6	3.67	3	125	0.5	5	6.22	0.2	83	30	171	101	7.72	0.26	12	13	3.27	1240	1	0.06	86	0.10	2	132	0.31	234	79
132	91281	55	0.6	3.79	8	149	0.5	5	5.08	0.5	75	29	146	109	6.76	0.35	11	13	3.12	990	1	0.07	102	0.10	2	140	0.35	211	75
133	91282	20	0.2	3.53	2	129	0.3	5	2.60	0.3	61	25	27	373	7.65	0.24	13	9	1.86	607	2	0.08	17	0.12	2	244	0.43	247	45
134	91283	370	0.8	5.18	2	261	0.5	5	2.00	0.3	53	108	16	4620	11.34	0.57	13	19	4.63	938	63	0.04	23	0.11	2	85	0.44	265	70
135	91284	1030	0.2	4.70	7	548	0.5	5	4.58	0.2	76	150	17	542	10.06	1.09	14	13	2.43	780	108	0.07	19	0.11	2	160	0.48	266	56
136	91285	5	0.2	5.43	2	275	0.5	5	4.57	0.6	80	36	15	110	7.29	0.52	13	12	2.02	776	1	0.08	13	0.09	2	294	0.45	276	66
137	91286	20	0.2	4.77	2	148	0.4	5	5.29	0.3	87	46	43	249	7.71	0.25	13	11	2.37	792	2	0.09	25	0.14	2	253	0.47	284	64
138	91287	15	0.4	3.93	2	179	0.4	5	4.72	0.4	77	35	55	200	7.58	0.34	12	11	2.36	895	1	0.08	27	0.13	2	182	0.42	264	74
139	91288	35	0.2	4.70	2	208	0.5	5	6.88	0.8	94	43	68	266	8.82	0.47	14	19	4.16	1119	1	0.06	32	0.12	2	127	0.44	360	79
140	91289	35	0.6	4.23	2	381	0.6	5	8.11	0.3	104	38	59	179	8.32	0.73	15	19	3.63	1549	1	0.06	28	0.12	2	125	0.38	338	76
141	91290	810	2.0	3.72	3	216	0.5	5	2.30	0.8	58	62	104	2156	7.89	0.50	14	17	3.01	1155	36	0.05	45	0.11	4	36	0.08	236	90
142	91291	15	0.2	5.00	5	337	0.5	5	6.44	0.7	89	22	18	108	6.52	0.88	13	13	1.72	1069	1	0.06	10	0.13	6	396	0.23	217	60
143	91292	10	0.2	4.63	2	322	0.4	5	3.71	0.5	74	26	17	169	7.02	0.64	15	12	2.04	808	1	0.09	14	0.11	4	211	0.50	264	76
144	91293	10	0.2	5.08	2	462	0.4	5	3.91	0.2	69	24	14	100	7.01	0.90	14	10	1.78	762	1	0.09	11	0.10	2	282	0.50	273	68
145	91294	100	0.2	3.06	4	406	0.4	5	3.51	0.9	64	44	86	750	5.10	0.72	14	9	2.30	649	2	0.09	68	0.11	2	119	0.34	178	46
146	91295	5	0.4	5.20	2	130	0.6	5	4.76	1.3	74	46	450	126	6.36	0.39	16	24	7.03	1435	1	0.04	368	0.11	2	69	0.31	186	96
147	91296	95	0.2	4.35	4	505	0.5	5	3.69	0.6	76	152	28	231	8.35	1.21	19	18	3.41	986	5	0.07	28	0.12	2	87	0.51	264	61
148	91297	1540	0.4	4.49	6	435	0.5	5	4.08	0.7	79	355	38	674	12.28	1.05	17	15	3.01	918	229	0.09	32	0.12	2	130	0.50	292	68
151	91298	20	0.2	3.46	4	239	0.5	5	5.54	0.6	57	35	101	151	6.65	0.53	10	13	3.46	1064	5	0.05	42	0.10	2	79	0.17	235	75
152	91299	115	0.2	2.79	7	60	0.4	5	5.10	0.6	59	45	114	195	7.15	0.18	10	11	3.24	1089	3	0.05	42	0.09	2	84	0.07	236	77
153	91300	55	0.2	4.00	2	217	0.4	5	4.39	0.5	55	32	20	209	6.18	0.42	12	8	2.00	967	2	0.07	12	0.13	2	169	0.35	211	71
154	91305	280	0.2	4.35	2	437	0.5	5	3.42	0.3	51	51	136	343	8.50	1.02	12	15	4.29	834	2	0.04	61	0.09	2	63	0.34	257	57
155	91306	60	0.2	4.31	7	277	0.4	5	4.57	0.5	57	57	130	488	7.29	0.73	11	15	4.37	903	1	0.05	61	0.08	2	79	0.34	237	55
156	91307	30	0.2	6.67	2	554	0.5	5	5.46	0.2	65	55	19	323	8.26	1.12	12	13	2.54	821	1	0.06	24	0.10	3	306	0.39	303	46
157	91308	15	0.2	7.32	2	1005	0.5	5	3.81	0.4	57	93	8	265	9.14	2.33	13	17	2.90	1123	1	0.07	21	0.15	2	235	0.51	330	58
158	91309	20	0.2	7.70	2	776	0.6	5	4.79	0.6	69	59	8	253	9.69	1.80	15	18	3.07	848	1	0.06	18	0.19	3	284	0.58	361	50
159	91310	65	0.2	7.08	2	1453	0.5	5	1.81	0.5	49	145	31	420	9.93	2.53	14	22	3.34	1540	1	0.07	40	0.15	3	116	0.46	276	88
160	91311	260	0.2	6.28	2	1861	0.4	5	0.36	0.2	25	47	44	321	13.75	3.01	13	16	2.51	850	2	0.06	25	0.12	4	51	0.37	245	76
161	91312	100	0.2	6.37	2	2061	0.4	5	0.17	0.2	14	33	47	258	11.73	2.93	10	17	2.69	874	3	0.05	21	0.10	2	25	0.41	229	70
162	91313	70	0.2	5.77	2	540	0.4	5	0.31	0.2	28	28	47	308	13.17	1.29	12	20	3.54	1195	14	0.05	23	0.12	2	12	0.38	232	86
163	91314 core	80	0.2	3.24	19	377	0.3	5	0.14	0.2	26	35	71	566	23.25	0.88	12	9	1.61	557	286	0.13	16	0.10	2	25	0.36	279	49

2/3/02 Gus 4/9

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SOUP - 150 (HEMLO)

Geol.: GG

Date received: SEP. 05

LAB CODE: 9509-006

Material: 14 Cores (HS95-3/4)

Sheet: 1 of 1

Date completed: SEP. 07

R #34606

Remarks: * Sample screened @ -35 MESH (0.5 mm)

† Organic, Δ Humus, S Sulfide

Au - silt & soil, 15.0 g sample digested with aqua-regia and determined by A.A. (D.L. 2 PPB); Rx, 10.0 g/AR/AA (DL 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO₄/HNO₃ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
88	091301	5	0.2	5.16	2	136	0.5	5	5.21	0.7	70	23	21	119	6.02	0.20	10	12	1.61	746	1	0.07	18	0.12	2	287	0.56	238	41
89	091302	5	0.2	4.74	4	131	0.5	5	4.71	0.5	70	23	19	144	5.45	0.22	12	11	1.51	663	1	0.05	17	0.11	2	255	0.56	242	40
90	091303	5	0.2	5.14	3	245	0.5	5	4.73	0.7	65	20	20	90	6.18	0.45	13	12	1.55	673	1	0.06	16	0.11	2	243	0.53	240	43
91	091304	5	0.2	5.38	2	248	0.5	5	4.91	0.3	61	29	17	133	6.01	0.41	10	12	1.71	658	1	0.05	18	0.10	2	279	0.54	250	43
92	091338	30	0.2	4.55	2	90	0.5	5	4.22	0.4	63	36	27	245	6.19	0.28	10	12	1.95	594	1	0.06	22	0.11	2	248	0.43	228	29
93	091339	25	0.2	4.80	2	439	0.5	5	3.77	0.2	62	26	27	226	7.09	1.19	12	15	2.59	630	1	0.06	25	0.10	2	238	0.46	250	36
95	091340	15	0.2	4.41	2	82	0.5	5	5.56	0.2	58	28	41	196	7.73	0.27	14	11	2.02	704	1	0.08	41	0.12	2	222	0.54	276	36
96	091341	40	0.2	3.87	2	117	0.4	5	3.01	0.4	52	45	41	437	7.89	0.38	13	12	2.21	559	9	0.11	33	0.12	2	198	0.51	255	37
97	091342	35	0.2	3.45	2	167	0.4	5	2.02	0.2	43	50	82	859	6.52	0.48	14	13	2.78	592	6	0.08	46	0.09	2	148	0.39	219	40
98	091343	5	0.2	3.62	2	245	0.4	5	2.59	0.2	51	18	19	289	6.69	0.57	14	12	2.01	837	1	0.09	16	0.11	2	142	0.51	249	54
101	091344	5	0.2	3.35	3	198	0.4	5	2.73	0.7	50	13	24	114	6.20	0.47	15	11	1.93	760	1	0.08	14	0.11	2	140	0.48	246	43
102	091345	5	0.2	5.46	2	250	0.4	5	4.13	0.4	43	18	19	114	6.78	0.47	13	13	2.41	793	1	0.05	16	0.08	2	216	0.42	278	50
103	091346	5	0.2	5.51	2	320	0.5	5	3.08	0.5	46	64	22	295	7.67	0.53	14	16	3.25	1101	1	0.04	25	0.10	2	170	0.48	306	65
104	091347	5	0.2	3.80	2	243	0.4	5	3.01	0.5	44	23	69	216	6.59	0.60	11	11	2.47	677	2	0.09	38	0.09	2	153	0.48	252	44

HEMLO GOLD MINES INC.

PROJECT # 150

N.T.S. 940/8

LAB REPORT # _____

DATE August 5/95

PROJECT SOUP HS-95-4

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPH.	TYPE	WIDTH (m)								SAMPLED BY
91305	12.1 - 15.1m		Core	3								G.M
91306	15.1 - 17.1m		}	2								}
91307	17.1 - 19.4m			2.3								
91308	19.4 - 20.2m			0.8								
91309	20.2 - 21.2			1.0								
91310	21.2 - 22.2			1.0								
91311	22.2 - 23.2			1.0								
91312	23.2 - 24.4			1.2								
91313	24.4 - 25.4			1.0								
91314	25.4 - 26.6			1.2								
91315	26.6 - 27.6			1.0								
91316	27.6 - 28.9			1.3								
91317	28.9 - 29.9			1.0								
91318	29.9 - 30.9			1.0								
91319	30.9 - 31.9			1.0								
91320	31.9 - 32.9			1.0								
91321	32.9 - 33.9			1.0								
91322	33.9 - 34.9			1.0								
91323	34.9 - 35.9			1.0								
91324	35.9 - 36.9			Core	1.0							

APPENDIX III
DIAMOND DRILL LOGS

HEMLO GOLD MINES INC.

DATE COLLARED July 25/95		DATE COMPLETED July 26, 1995		CORE SIZE NQ		DIP TESTS				PROPERTY SOUP		PROJECT NO. 150		N.T.S. No. 94D8		GRID NORTH (W.R.T. TRUE) 320°						
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE				SHEET 4 OF 6		MAGNETIC DECLINATION 23°						
AT. 62217N		ELEV. 2145 m		DIP -65°		RECORDED	CORRECTED	RECORDED	CORRECTED	LAT.	ELEV.	DIP	HOLE No.		LOGGED BY L. ERDMAN							
DEP. 81744E		LENGTH 62.8 m		BEARING 205°						DEP.	LENGTH	BEARING	HS-95-1		DATE JULY 24, 1995							
						GEO TECH				GEOCHEM				ASSAY								
FROM	TO	ROCK TYPE	DESCRIPTION			FROM	TO	% RECO VERY	% Py	% Mt	Frac Dens	FROM	TO	Carb	Chl	Ep	Ser	FROM	TO	SAMPLE No.	Au	Cu
			calcite/epidote veinlet (5 mm).																			
40.3	40.8	AP	FELDSPAR PHYRIC, AUGITE PORPHYRITIC ANDESITE Dark grey with white "dots" (feldspar lathes). Quartz/calcite/epidote fractures at 45° to CA. Rusty fracture fill at 30° and 45° to CA. Feldspar to epidote, pervasively magnetic. Gradational lower contact.			40.3	40.8	-	-	7	1			1	-	2						
40.8	42.0	AP	AUGITE PORPHYRITIC ANDESITE Similar to 38.2 - 40.3 m. Gradational upper contact. 40.9 m. 2 cm quartz/chlorite vein, calcite lower margin trace coarse grained pyrite, no magnetite, 40° to CA. 50.1 m. 3 cm cloudy carbonate vein with epidote alteration in selvage @ 20° to CA.			40.8	42.0	-	-	5	1			1	-	2						
42.0	43.0	AP	FELDSPAR PHYRIC, AUGITE PORPHYRITIC ANDESITE Similar to 40.3 to 40.8 m. Weak epidote alteration of feldspar.			42.0	43.0	-	-	7	1			1	-	1						
43.0	45.8	AND	FELDSPAR PORPHYRITIC ANDESITE Medium grey, ghostly feldspar phenocrysts. Pervasive carbonate, carbonate veinlets/fracture fill. Pervasive magnetite. Pervasive chlorite. Fractures at 10°, 20°, 45° (most common). Rare ghostly pyroxene. 45.0 m. 1 cm carbonate vein, minor quartz, 30° to CA. Trace magnetite on selvage. 45.5 m. 2 cm vein similar to 45.0 m vein but at 45° to CA.			43.0	45.8	-	-	5	5			4	2	-		44.2	45.2	91288	35	266
						42.7	45.7	100										45.2	45.8	91289	35	179

HEMLO GOLD MINES INC.

DATE COLLARED July 27/95		DATE COMPLETED July 29, 1995		CORE SIZE NQ		DIP TESTS				PROPERTY SOUP		PROJECT NO. 150		N.T.S. No. 94D/8		GRID NORTH (W.R.T. TRUE) 320°							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE				SHEET 1 OF 3		MAGNETIC DECLINATION 23°									
LAT. 62515N		ELEV. 2180 m		DIP -60°		RECORDED	CORRECTED	RECORDED	CORRECTED	LAT.	ELEV.	DIP	HOLE No.		LOGGED BY L. ERDMAN								
DEP. 81800E		LENGTH 18.3 m		BEARING 240°						DEP.	LENGTH	BEARING	HS-95-3		DATE AUGUST 3, 1995								
						GEOTECH				GEOCHEM				ASSAY									
FROM	TO	ROCK TYPE	DESCRIPTION			FROM	TO	% RECO VERY	% Py	% Mt	Frac Dens	FROM	TO	Chl	Carb	Ep	FROM	TO	SAMPLE No.	Au	Cu		
0.0	4.6		CASING.																				
4.6	6.1	AP	AUGITE PORPHYRY Broken core, two types of augite porphyritic andesite, dark green, uphole, lighter green downhole with a contact at 20° to CA. Minor rusty fractures. Augite and feldspar phenocrysts of equal size, <2 mm, but also smaller feldspar lathes. Lighter green section has greater amount of pervasive epidote alteration.			4.6	6.1	35	-	-	1			-	-	2							
6.1	7.1	AND	FELDSPAR AUGITE PORPHYRITIC ANDESITE Dark grey colour with crowded white feldspar lathes. Minor (<1%) well formed pyroxene phenocrysts. Carbonate fracture fill, rusty fracture fill, from 6.4 to 6.5 m. Also greater epidote alteration from 6.4 to 6.5 m. Lower contact at 25° to CA (broken core so may not be accurate).			6.1	7.1			Tr	5	1			1	1	6.3	6.8	91301	5	119		
7.1	7.5	AP	AUGITE PORPHYRY Grey-green colour, distinctly porphyritic with dark green augite phenocrysts to 4 mm, 20% volume. Groundmass is feldspar phyric. Weak alteration of feldspar to epidote. Lower contact is broken but looks to be about 80° to CA.			7.1	7.5			-	1	-			-	-	-						
7.5	8.0	AND	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE Similar to 6.1 to 7.1 m.			7.5	8.0			Tr	5	1			-	-	-						
8.0	8.5	AP	AUGITE PORPHYRY LAPILLI TUFF Dark green to green-grey colour with rounded fragments to 3 cm of feldspar phyric or augite porphyritic andesite as seen at 6.1 to 7.1 m. and 7.1 to 7.5 m. Fragments are absorbed. Variable magnetism dependent on fragment lithology. Matrix is a feldspar phyric augite porphyritic andesite.			8.0	8.5			-	3	-			-	-	-						

HEMLO GOLD MINES, INC.

DATE COLLARED Aug 4/95			DATE COMPLETED Aug. 6/95-3 A.M.			CORE SIZE NQ			DIP TESTS				PROPERTY SOUP			PROJECT NO.150		N.T.S. No. 94D8		GRID NORTH (W.R.T. TRUE) 320'								
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE					SHEET 10 OF 12		MAGNETIC DECLINATION 23'											
LAT. 62194N			ELEV. 2075 m			DIP -75°			RECORDED		CORRECTED		RECORDED		CORRECTED		LAT.		ELEV.		DIP		HOLE No.		LOGGED BY L. ERDMAN			
DEP. 81647E			LENGTH 144.1 m			BEARING 214°											DEP.		LENGTH		BEARING		HS-95-4		DATE AUGUST 5, 1995			
									GEO TECH				GEOCHEM				ASSAY											
FROM	TO	ROCK TYPE	DESCRIPTION			FROM	TO	% RECO VERY	Py	Mt	Frac dens	FROM	TO	Chl	Carb	Ep.	FROM	TO	SAMPLE No.									
94.0	94.4	DK	Diabase dyke. Medium grey, very fine grained. Upper contact at 30°. Lower contact is broken. Very fine grained magnetite.																									
94.4	96.9	AP	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE Same rock as at 93.2 to 94.0 but local sections have more distinct feldspar crystals, pyroxene phenocrysts < 1%.			94.4	96.9	-	-	2	-			-	-	-												
						94.5	97.5	90																				
96.9	97.5	AP	AUGITE PORPHYRY - Completely altered. Green, pyroxene phenocrysts in epidote matrix. Local strong magnetite on fractures but host is non-magnetic.			96.9	97.5	-	-	1	-			-	-	5												
97.5	111.4	AP	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE. Medium grey, fine grained porphyritic. Well defined feldspar phenocrysts ≤ 1 mm, 25% volume. Generally pyroxene phenocrysts (15%) are of a similar size but locally pyroxene phenocrysts are ≤ 4 mm. Rusty fractures at 45° and 135°, rare fractures sub parallel to CA. Weak alteration of feldspar to epidote.			97.5	111.4	-	Tr	2	2			-	-	1	97.5	100.6	91347									
						97.5	100.6	75																				
						100.6	103.6	50																				
						103.6	106.7	100																				
						106.7	109.7	100																				
						109.7	112.8	100																				
111.4	111.7	AP	AUGITE PORPHYRY Medium green, very fine grained with feldspar and augite phenocrysts. Feldspar (2%), augite (3%), both ≤ 2 mm size. Augites altering to carbonate/epidote/chlorite. Fractures at 15°, 30°, 60° with carbonate/epidote.			111.4	111.7	-	Tr	1	5			1	1	1												
111.7	112.3	MZ	MONZONITE See description for 113.0-120.4. Contacts are broken but upper contact is from 40° to 50°.			111.7	112.3	-	-	-	-			-	-	-												
112.3	112.8	AP	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE Broken rusty core. Similar to 97.5 to 111.4. Epidote on fractures.			112.3	112.8	-	Tr	3	5			-	-	1												

HEMLO GOLD MINES, INC.

DATE COLLARED Aug 4/95		DATE COMPLETED Aug. 6/95-3 A.M.		CORE SIZE NO		DIP TESTS				PROPERTY SOUP		PROJECT NO.150		N.T.S. No. 9408		GRID NORTH (W.R.T. TRUE) 320°			
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE				SHEET 5 OF 12		MAGNETIC DECLINATION 23°			
LAT. 62194N		ELEV. 2075 m		DIP -75°		RECORDED	CORRECTED	RECORDED	CORRECTED	LAT.	ELEV.	DIP		HOLE No.		LOGGED BY L. ERDMAN			
DEP. 81647E		LENGTH 144.1 m		BEARING 214°						DEP.	LENGTH	BEARING		HS-95-4		DATE AUGUST 5, 1995			
FROM	TO	ROCK TYPE	DESCRIPTION	GEOTECH						GEOCHEM						ASSAY			
				FROM	TO	% RECO VERY	Py	Mt	Frac dens	FROM	TO	Chl	Carb	Ep.	FROM	TO	SAMPLE No.		
			Variably magnetic from none to trace. Rare very fine grained pyrite.																
49.6	51.0	AND	ANDESITE Gray-green, fine grained with poorly developed crystals. Carbonate fracture fill at 30°, 140°. End of interval with 2 cm quartz/carbonate vein at 20°. Disseminated fine grained magnetite. Pyroxene crystals to 1 mm visible on split surface of core.	49.6	51.0	-	-	2	1			-	1	-	49.2	51.2	91337		
51.0	51.5	AND	ANDESITE Similar to 48.2 to 49.6 but no malachite present. Gradational contact with interval below.	51.0	51.5	-	-	1	1			1	1	1					
51.5	52.3	AND	ANDESITE Finer grain phase of the andesite in the interval above.	51.5	52.3	-	-	-	-			-	-	-					
52.3	57.5	AP	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE Medium grey, fine grain porphyry. Pyroxene phenos are not abundant and locally no pyroxene is observed. Crowded feldspar crystals present throughout so rock has a grainy appearance. Rusty fracture fill present locally. Feldspar veinlets and fracture fill, veinlets have an epidote salvage, 30°, 25°, 10°, 20° 54m-Chlorite vein with calcite margins at 10° to CA. Generally trace magnetite, locally 3° magnetite. 56.7 m - 2 cm quartz/carbonate/epidote vein at 20° with 3% magnetite in 3 cm envelope. At 56.8 a magnetite fracture fill with 0.4 cm epidote envelope, pervasive magnetite stronger in rock adjacent to fracture. Weak epidote alteration of feldspar	52.3	57.5	-	-	1	1			2	1	1					
				51.8	54.9	100													
				54.9	57.9	100													
57.5	57.7	DY	DYKE - ANDESITE Very fine grained, green grey. Upper contact at 10°, lower contact broken. Minor <1mm feldspar crystals.	57.5	57.7			-	-	-		-	-	-					

HEMLO GOLD MINES, INC.

DATE COLLARED Aug 4/95		DATE COMPLETED Aug. 6/95-3 A.M.		CORE SIZE NQ		DIP TESTS				PROPERTY SOUP			PROJECT NO.150		N.T.S. No. 94D8		GRID NORTH (W.R.T. TRUE) 320'							
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE					SHEET 9 OF 12		MAGNETIC DECLINATION 23'							
LAT. 62194N		ELEV. 2075 m		DIP -75°		RECORDED		CORRECTED		RECORDED		CORRECTED		LAT.	ELEV.	DIP	HOLE No.		LOGGED BY L. ERDMAN					
DEP. 81647E		LENGTH 144.1 m		BEARING 214°										DEP.	LENGTH	BEARING	HS-95-4		DATE AUGUST 5, 1995					
		ROCK TYPE	DESCRIPTION			GEOTECH				GEOCHEM					ASSAY									
FROM	TO					FROM	TO	% RECO VERY	Py	Mt	Frac dens	FROM	TO	Chl	Carb	Ep.	FROM	TO	SAMPLE No.					
80.7	81.0	AND	ANDESITE (?) No core, just sand.			80.7	81.0	-																
81.0	82.3	AND	FELDSPAR/PYROXENE PHYRIC ANDESITE Dark grey, fine grained feldspar crystals rarely euhedral, all < 1 mm, pyroxene crystals to 2 mm, feldspar ~ 30% volume, pyroxene ~ 3%. Similar to 61.7 to 65.3 but finer overall grain size. Salt/pepper texture. Disseminated fine grain magnetite, rusty fracture fill. Weak chlorite alteration of pyroxene phenocrysts.			81.0	82.3	-	-	5	-			1	-	-								
82.3	82.7	DI	DIORITE Light grey. Leucocratic magnetite diorite, rusty fractures Local disseminated magnetite, chlorite alteration of mafics.			82.3	82.7	-	-	Tr	-			1	-	-								
82.7	86.9	AND	FELDSPAR/PYROXENE PHYRIC ANDESITE Same rock type as at 81.0 to 82.3			82.7	86.9	-	-	5	-			1	-	-								
						82.2	85.3	50																
86.9	88.3	AND	ANDESITE Medium green, very fine grained. Very broken core, rusty fracture fill. Feldspar: noneuhedral, <<1mm. Locally pyroxene phenocrysts to 2 mm are present. Feldspar content > pyroxene.			86.9	88.3	-	-	2	-			1	-	-								
						85.3	88.4	60																
88.3	89.3	AND	FELDSPAR/PYROXENE PHYRIC ANDESITE Same rock type as at 82.7 to 86.9			88.3	89.3	-	-	5	-			1	-	-								
89.3	93.2	AND	ANDESITE Grey green, fine grain, very broken core, rusty fractures. Fine grained magnetite. No phenocrysts present, no veining. Similar to 86.9 - 88.3			89.3	93.2	-	-	5	-							91.4	93.4	91343				
93.2	94.0	AP	FELDSPAR PHYRIC AUGITE PORPHYRITIC ANDESITE Medium green, fine grained. Indistinct <1 mm feldspar with minor augite crystals of the same size. Rusty fractures.			93.2	94			Tr	2	1						93.4	94.5	91344				

APPENDIX IV
STATEMENT OF COSTS

HEMLO GOLD MINES INC.
STATEMENT OF COSTS

PROJECT: SOUP

DATE: October 12, 1995

TYPE OF REPORT: DRILLING

- a) Wages:
- | | |
|------------------|------------------------|
| No. of Mandays : | 28 |
| Rate per Manday: | \$204.25 |
| Dates From : | July 1 - July 31, 1995 |
| Total Wages : | \$5,730.00 |
- b) Food & Accommodations:
- | | |
|------------------|------------------------|
| No. of Mandays : | 52 |
| Rate per Manday: | \$30.00 |
| Dates From : | July 1 - July 31, 1995 |
| Total Costs : | \$1,560.00 |
- c) Transportation:
- | | |
|------------------|------------------------|
| No. of Mandays : | 21 |
| Rate per Manday: | \$60.00 |
| Dates From : | July 1 - July 31, 1995 |
| Total Costs : | \$1,260.00 |
- d) Supplies:
- | | |
|------------------|------------------------|
| No. of Mandays : | 44 |
| Rate per Manday: | \$36.50 |
| Dates From : | July 1 - July 31, 1995 |
| Total Costs : | \$1,606.00 |

e) Analysis:
(See attached schedule)

f) Drilling Costs: \$25,517.00
Contractor: Britton Bros. Diamond Drilling

g) Cost of Preparation of Report:
Author : 2 days @ \$300. = \$600.
Drafting: 2 days @ \$220. = \$440.
Typing : 1 day @ \$150. = \$150.

h) Other:
Helicopter flights \$35,861.00

Contractor:
Pacific Western Helicopters

TOTAL COST \$73,099.00

h) Unit Costs for Drilling
No. of Mandays : 52
No. of Units : 173.5 meters
Unit Costs : \$421.32/meter
Total Cost : \$73,099.00

GRAND TOTAL \$73,099.00

HEMLO GOLD MINES INC.

DETAILS OF ANALYSIS COSTS

PROJECT: SOUP

ELEMENT	NO. OF DETERMINATIONS	COST PER DETERMINATION	TOTAL COSTS
30 element ICP plus Au	25	\$15.00	\$375.00

HEMLO GOLD MINES INC.
STATEMENT OF COSTS

PROJECT: SOUP

DATE: October 12, 1995

TYPE OF REPORT: PHYSICAL

a) Wages:
No. of Mandays : 16
Rate per Manday: \$206.06
Dates From : July 14 - July 31, 1995
Total Wages : \$3,297.00

b) Food & Accommodations:
No. of Mandays : 16
Rate per Manday: \$27.50
Dates From : July 14 - July 31, 1995
Total Costs : \$440.00

c) Other:
Helicopter Flights: \$7,290.00

Contractor:
Pacific Western Helicopters

TOTAL COST \$11,027.00

d) Unit Costs for
No. of Mandays : 16
No. of Units : 3 Pads/1 Pond
Unit Costs : \$689.19
Total Cost : \$11,027.00

GRAND TOTAL \$11,027.00

APPENDIX V
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Linda R. Erdman, of the City of Vancouver, Province of British Columbia, hereby certify that:

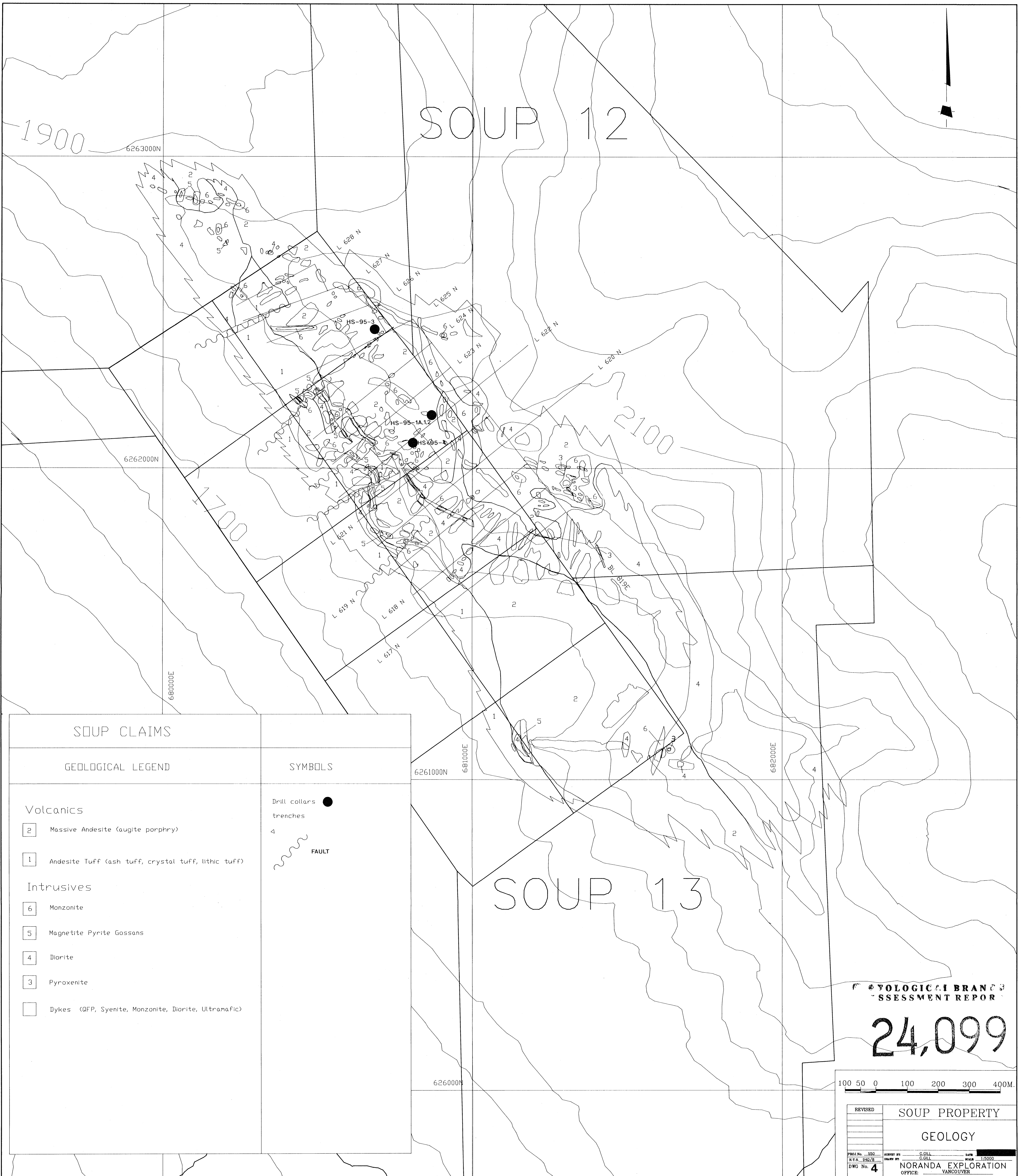
I am a geologist residing at 1397 Matthews Avenue, Vancouver, B.C.

I have graduated from the University of British Columbia in 1978 with a BSc in geology, and in 1985 with an MSc in geology.

I have worked in mineral exploration since 1976.

I have been with Hemlo Gold Mines Inc. since March, 1995.

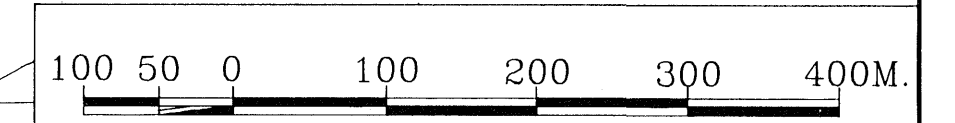
Linda R. Erdman, MSc.



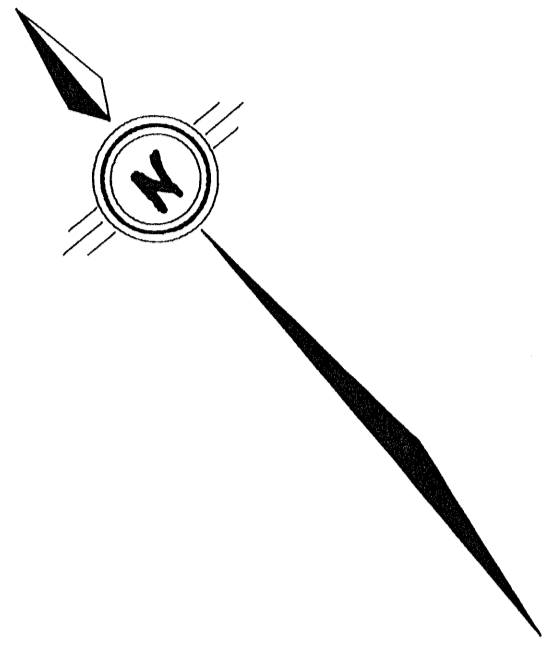
SOUP CLAIMS	
GEOLOGICAL LEGEND	SYMBOLS
<p>Volcanics</p> <p>2 Massive Andesite (augite porphyry)</p> <p>1 Andesite Tuff (ash tuff, crystal tuff, lithic tuff)</p> <p>Intrusives</p> <p>6 Monzonite</p> <p>5 Magnetite Pyrite Gossans</p> <p>4 Diorite</p> <p>3 Pyroxenite</p> <p>Dykes (QFP, Syenite, Monzonite, Diorite, Ultramafic)</p>	<p>● Drill collars trenches</p> <p>4 ~ FAULT</p>

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,099



REVISED	SOUP PROPERTY		
	GEOLOGY		
PROJ. No. 550	DRAWN BY G. GILL	CHECKED BY G. GILL	DATE
N.T.S. 240/8	SCALE BY G. GILL	SCALE	1:5000
DWG No. 4	NORANDA EXPLORATION		
	OFFICE: VANCOUVER		



95-3

95-1
95-1A
95-2

95-4

TOLOGICAL BRANCH
ASSESSMENT REPORT

24,099

DRAWING 5

HEMLO GOLD MINES INC.

SDUP

PLAN VIEW OF 1995 DRILL HOLES
GRID NORTH AT 320 WRT TRUE NORTH

DATE: 95/10/18

SCALE: 1/500

2150

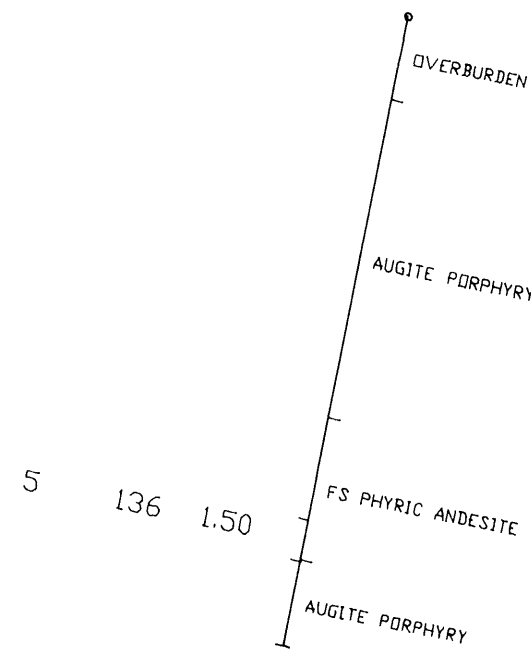
81700E

81750E

81800E

2150

95-1A



95-1A
22.90 m.

2100

2100

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,099

2050

2050

HEMLO GOLD MINES INC.

SOUP
SECTION 622N
SOUP-DDH-S95-1A
EAST-WEST FACING NORTH
Au ppb, Cu ppm, width(m), Geology

DRAWING 6

DATE: 95/10/10

SCALE: 1/250

2150

81700E

81750E

81800E

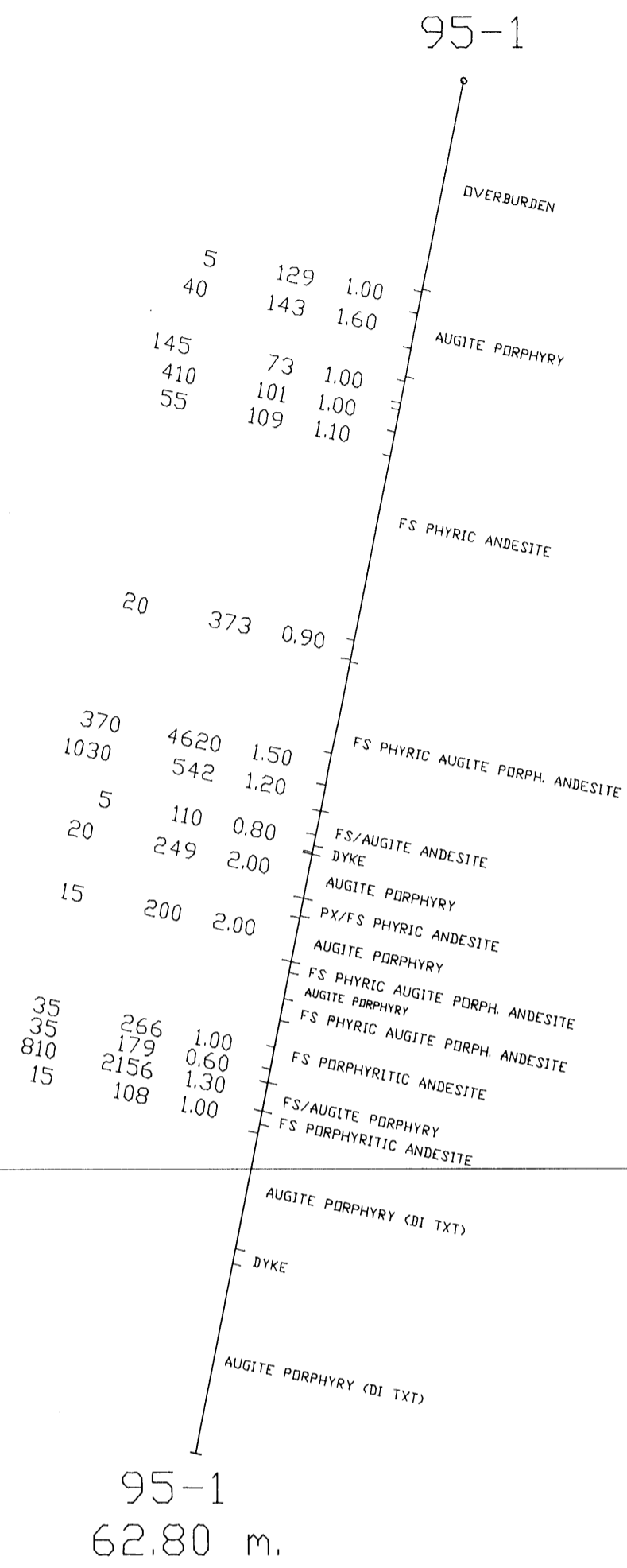
2150

2100

2100

2050

2050



95-1
62.80 m.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,099

HEMLD GOLD MINES INC.

SOUP

SECTION 622N
SOUP-DDH-S95-1

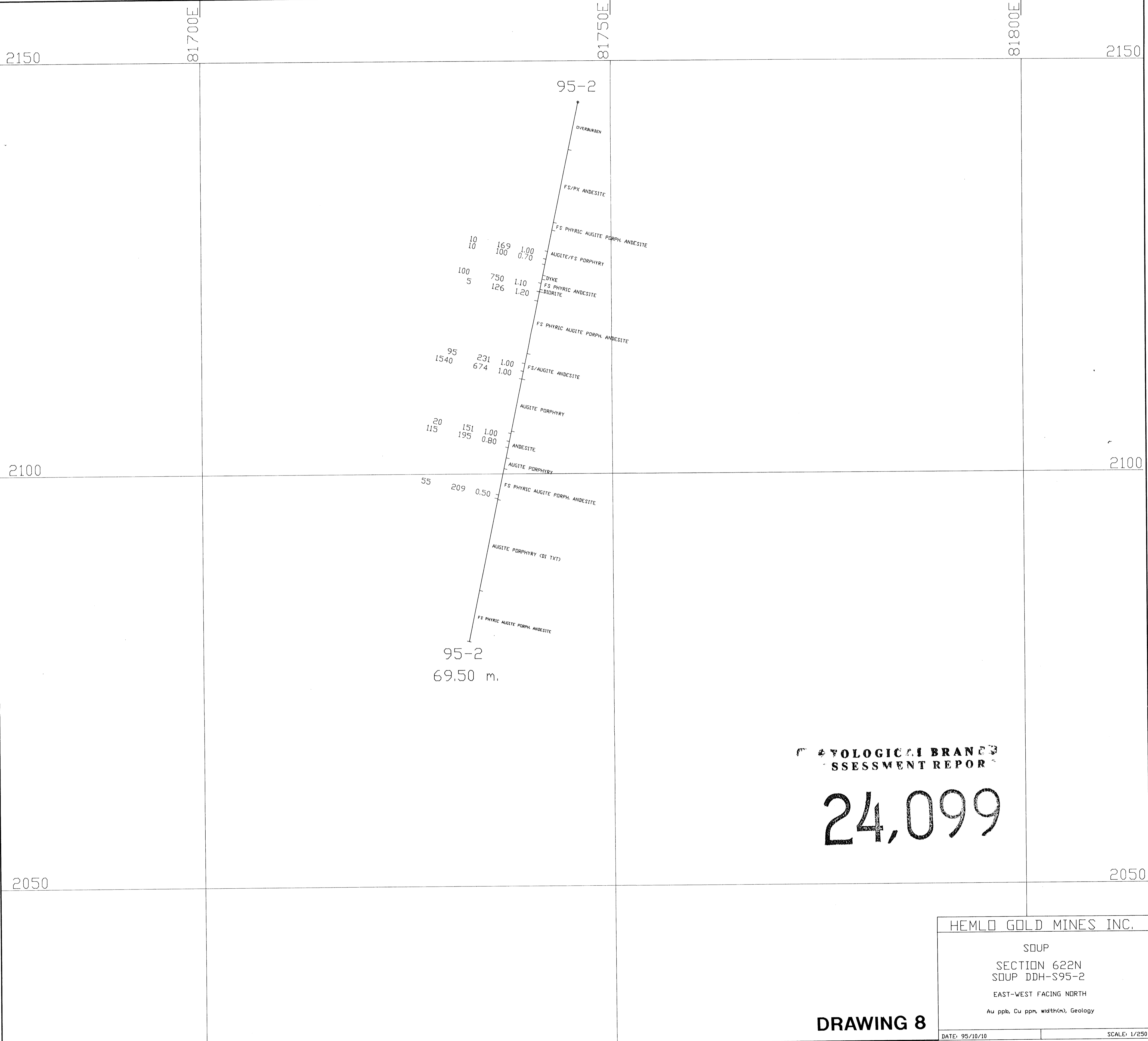
EAST-WEST FACING NORTH

Au ppb, Cu ppm, width(m), Geology

DRAWING 7

DATE: 95/10/12

SCALE: 1/250



GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,099

DRAWING 8

HEMLO GOLD MINES INC.	
SOUP	
SECTION 622N	
SOUP DDH-S95-2	
EAST-WEST FACING NORTH	
Au ppb, Cu ppm, width(m), Geology	
DATE: 95/10/10	SCALE: 1/250

2100

2100

81600E

81650E

81700E

2050

2050

2000

2000

1950

1950

1900

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,099

81700E

1900

HEMLD GOLD MINES INC.

SDUP
SECTION 622N
DDH 95-4
EAST-WEST FACING NORTH
Au(ppb), Cu(ppm), Width(meters) & Geology

DRAWING 10

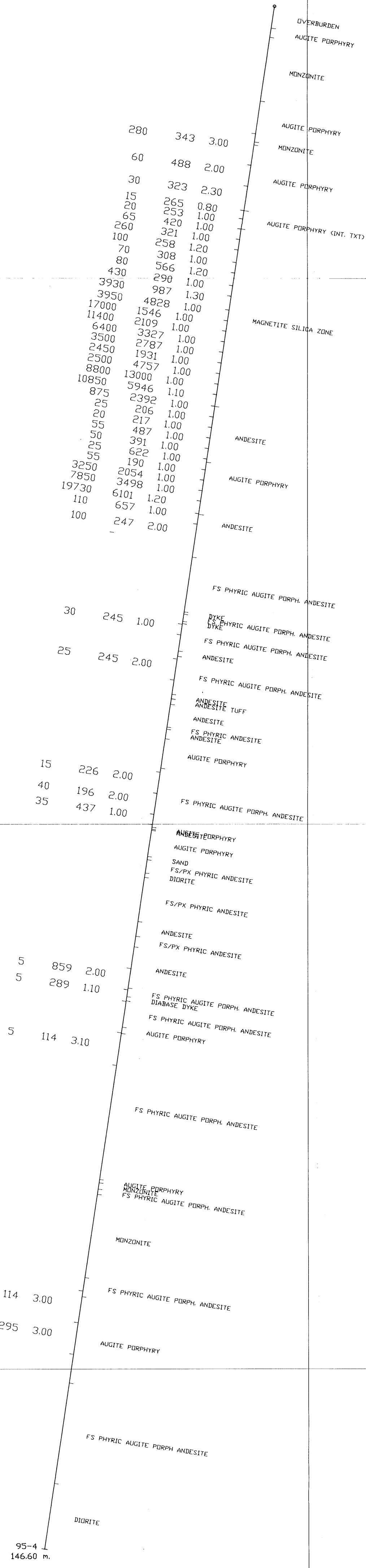
DATE: 95/09/29

SCALE: 1/250

81600E

81650E

95-4



95-4
146.60 m.