Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
BV 4260	2335/94		Trondheim	**Fortrolig**
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra	Fortrolig pga Muting	Fortrolig fra dato:

Tittel

Kells Creek Property, Oppdal, Norway.
1994 Exploration season.

Forfatter	Dato	Bedrift
Livgard, Egil	26/10 1994	Livgard Consultans Consolidated Logan Mines Ltd. Calais Resources Ltd.

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Oppdal	Sør-Trøndelag	Trondheimske		

Fagområde	Dokument type	Forekomster
Boring	Rapport	

Råstofftype	Emneord
Malm/metall	Cu Au

Sammendrag

During the 1994 exploration season on the Kells Creek property, 1,428.65 metres of diamond drilling was carried out in 16 holes. The drilling encountered pervasive leaching creating ubiquitous small cavities and usually light clay aleration, but also very strong leaching and alteration north of Trond river. K-feldspathization, albitization, and silification partly very strong, possibly mainly associated with faulting, fracturing and brecciation wich may have provided access for hydrotermal solutions. Minor copper mieralization (chrysocolla) was noted usually associated with leach cavities as seen in core while surface showings are quartz veins and quartz-feldspar dykes with copper.

Very minor gold values were encountered. Most values, though very low, were found in Hole #1 closest to the location of the first high grade block. This block was found on top of glacio-fluvial material, perhaps an end morrain of partly washed material, formed by a late local ice sheet. The sorrounding area has very little outcrop. A small local soil survey did not give values of interest.

1 duplikat.

KELLS CREEK PROPERTY
OPPDAL, NORWAY

1994 Exploration Season

Prepared for:
Consolidated Logan Mines Ltd.
and
Calais Resources Ltd.

Prepared by:
Livgard Consultants
E. Livgard, P.Eng.

October 26, 1994

KELLS CREEK PROPERTY
OPPDAL, NORWAY

1994 Exploration Season

Prepared for:
Consolidated Logan Mines Ltd.
and
Calais Resources Ltd.

Prepared by:
Livgard Consultants
E. Livgard, P.Eng.

October 26, 1994

TABLE OF CONTENTS

List of Figures

Appendices

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

During the 1994 exploration season on the Kells Creek property, 1,428.65 metres of diamond drilling was carried out in 16 holes. The drilling encountered pervasive leaching creating ubiquitous small cavities and usually light clay alteation, but also very strong leaching and alteration north of Trond River. K-feldspathization, albitization, and silicification partly very strong, possibly mainly associated with faulting, fracturing and brecciation which may have provided access for hydrothermal solutions. Minor copper mineralization (chrysocolla) was noted usually associated with leach cavities as seen in core while surface showings are quartz veins and quartz-feldspar dykes with copper.

Very minor gold values were encountered. Most values, though very low, were found in Hole #1 closest to the location of the first high grade block. This block was found on top of glacio-fluvial material, perhaps an end morain of partly washed material, formed by a late local ice sheet. The surrounding area has very little outcrop. A small local soil survey did not give values of interest.

CONCLUSIONS

The very extensive hydrothermal metamorphic system which has been active in the area gave rise to:

K-feldspathization - silicification - sericitization and formation of pegmatite

and later:

biotite recrystallization - formation of cavities and sand through leaching

and later:

regressive metamorphism creating phlogopite, chlorite and epidote and introducing keratophyre.

The system mobilized copper and deposited it in faults, leach cavities and with quartz and quartz feldspar veins (preferred strike northwesterly?) but not in pegmatite lenses. Gold followed the copper and may also, contrary to copper, be found in minor amounts in the pegmatite lenses.

In the later part of the Caledonian Orogeny, regressive movement and metamorphism took place with lower pressure-temperature and sodic(?) conditions. The retrogressive movement would likely create open space fracturing. Such fracturing would preferably tend to be perpendicular to the retrograde movement (north-south?). Remobilization and perhaps introduction of gold into open space (brecciated mineral specimen) may have taken place. The source of the mineralized blocks may lie on the periphery of the altered areas.

The blocks containing gold are of the same composition as that encountered in the drill hole south of Kells Lake. The closest drill hole (#1) was located 250 metres NNW of the first high grade block discovery and also, although very low, is the hole showing the most anomalous gold. This southern area, both east and west of Kells Lake, should be further explored.

RECOMMENDATIONS

1. Further study should be done on the glacial-alluvial overburden around the area where mineralized blocks were found by trenching into the ridge.

2. The area south of Kells Lake, both to the east and west, should be soil sampled and, in addition, small areas should be soil sampled at Anomalies 4A, 4B and 7A. About 1,000 samples should be collected and analyzed.

3. Overburden drilling to bedrock should be carried out in selected areas in order to collect samples from the top 10-20 centimetres of bedrock. About 150 samples should be collected.

Estimated Costs of Recommendations

1.	Trenching		$2,000
2.	Soil collection @ $8.00/sample		8,000
3.	Overburden drilling		
	Rental and bits	$2,500	
	Drilling	9,000	
	Supervision - geology	8,000	
	Helicopter support	10,000	
	Supplies and vehicle	6,000	
	Analyses, freight, misc.	25,000	60,500
			70,500
	Contingency @ 10%		7,000
			$ 77,500

Respectfully submitted,

LIVGARD CONSULTANTS

October 26, 1994

E. Livgard, B.Sc., P.Eng.

INTRODUCTION

The 1994 exploration program on Consolidated Logan Mines Ltd.'s and Calais Resources Ltd.'s Kells Creek gold prospect at Oppdal, Norway commenced on June 23rd and ended on August 25th, 1994. The program started with an examination (prospecting) of the ground at several (14) geophysical anomalies located during the previous season (1993). Most of these anomalous areas were covered with overburden. Some anomalous areas were surveyed with a scintillometer and other were soil surveyed.

Diamond drilling commenced on June 30th and continued without interruption until August 10th. This report will describe the above work.

PROSPECTING

An examination was carried out of all the geophysical anomalies to determine the detailed topography and geology.

ANOMALY 1A (UTM 6930.1N, 525.3E to 525.9E)

The anomaly coincides exactly with the Main east-west striking fault. The two peaks (stations Cutler and Helgeland) of the anomaly coincide with two intersection zones where northwest-southeast striking faults cross the main fault. The faults and intersections are all overburden covered. The western crossing fault has apparently been offset by the main fault. The horizontal displacement is about 50 metres in a left-handed movement. Both faults are covered over widths of about 20 metres (see Diamond Drill Holes #7,8). The eastern crossing fault was (previously) mapped (NGU) as a thrust fault (see Diamond Drill Hole #5). It was covered over a width of 3-5 metres and does not appear to be strong. It appears to have offset the main east-west fault by about 13 metres. Surrounding rocks consist of gneiss which has not been noticeably altered. South of the anomaly about 200-300 metres downhill is an area of abundant keratophyre float.

ANOMALY 1B (UTM 6930.9N, 524.4-524.7E)

A weak VLF-EM anomaly, it lies along the main east-west fault where it is 20-30 metres wide and completely overburden covered. The anomaly was not drilled.

ANOMALIES 1C, 1D (UTM 6929.9N, 524.0-524.4E)

Weak radiometric anomalies (Bi 214) lie along on the south side of the main east-west fault. There is much outcrop in these areas (60-80%) of acid intrusives. The anomalies were not drilled.

ANOMALY 1E (UTM 6929.9N, 523.4-523.7E)

This is a weak VLF-EM anomaly which lies along the main east-west fault where it tangents an oblong airphoto feature which is interpreted to be an intrusive. On examination, the intrusive is fresh, dense without much fracturing. The overburden covered fault zone is about 10 metres wide. The anomaly was not drilled.

ANOMALY 2A (UTM 6930.6N, 525.3-525.6E)

This is a weak aerial VLF-EM response - no ground coverage. The anomaly lies at an intersection of an east-west fault, subparallel to the Main east-west fault, and the same northwest striking interpreted (NGU) thrust fault.

The area is all overburden covered - a grassy, gently sloping shelf on the north facing hillside. In a small creek following the thrust fault trace downhill a few pieces of keratophyre float were found. The anomaly was not drilled.

ANOMALY 3A (UTM 6928.7-6928.8N, 524.5-525.3E)

Very weak ground and aerial VLF-EM response, weak magnetic ground response, pronounced though weak, east-west geophysical trends. Geological mapping and photo

interpretation (1993) had indicated possible east-west structures. Examination added nothing new (see Diamond Drill Holes #1 and #2).

ANOMALY 4A (UTM 6928.1-6928.4N, 523.1-523.3E)

A weak Bi 214 anomaly and a potassium anomaly side by side. Examination of this area showed it to consist of a large boulder field without outcrops. The area was gridded and surveyed with a scintillometer. It was clear that higher potassium readings were higher in an area where boulders had a high K-feldspar content. The Bi 214 anomaly was weak to non-existent.

Diamond drilling of the area is not feasible because of the large boulders without substantial labour and should not be done unless further encouraging exploration results are obtained first.

ANOMALY 4B (UTM 6928.9N, 523.5-523.7E)

A weak radiometric, Bi 214 anomaly. Previous aerial interpretation had outlined lineaments (Zone A) striking southwesterly in the area. This interpretation was strengthened by the location of a narrow shear zone(?) consisting of mica schist. The zone may be one boundary of the airphoto lineament which had a width in excess of 150 metres. A small hill, no outcrop, consists of fragments of more mafic gneiss which is quite oxidized. The anomaly was not drilled.

ANOMALY 3B (UTM 6929.0-6929.3N, 525.05-525.35E)

A weak, partly coincident VLF-EM and positive magnetic anomaly. This anomaly area is all overburden covered. A small outcrop of light quartz feldspar gneiss is found just north of

the anomaly. Mapping (1993) projected a possible anticline extending through the west part of the anomaly (see Diamond Drill Hole #11 and, on the periphery, Diamond Drill Holes #9, #10, #12, and #13).

ANOMALY 5 (UTM 6930.3-6930.8N, 522.6-522.9E)

A moderately strong VLF-EM anomaly (Helgeland Station). The area may be a geological contact zone, i.e. projection of mapped (NGU) geology. On Examination, the area is locally very rugged with much outcrop and coarse boulders and fragments. The exposed rocks (50%) are generally fresh light coloured gneiss. A zone of slightly schisty sandy lightly oxidized gneiss runs through the central part - azimuth 40°. The anomaly was not drilled.

ANOMALY 6 (UTM 6931.0-6931.5N, 523.8-524.1E)

A weak VLF-EM anomaly (one station). The anomaly lies along the northwest side of an anomalous-looking valley - azimuth 23° - containing Fishhook Creek. The valley is broad and filled with sand derived from the local rocks. The head of the valley is actively eroding its way southwest apparently following a covered structure as indicated by aerial photo study. Smokey, grey, black quartz fragments are abundant. Northwest and southeast of the valley lies relatively light quartz-feldspar-biotite gneiss with foliation (bedding) striking 36°, 40°, 42° azimuth and dipping from 40° southeast to vertical. At the east end strikes of 162° azimuth were measured (Diamond Drill Holes #14 and #15).

ANOMALY 7A (UTM 6931.0-6931.6N, 524.3-525.1E)

This is the largest and strongest VLF-EM aerial anomaly on the property (one station - on second station not anomalous at all!). No ground coverage. The only outcrops are found

along the bottom part of Fishhook Creek which flows along the west part of the anomaly. The rocks are quartz-feldspar-biotite gneiss which have been leached and are crumbly and sandy. They strike parallel to the creek and dip northeasterly. The thrust fault (see Diamond Drill Hole #5) is projected to cut through the east part of the anomaly but this could not be confirmed due to lack of outcrops. The anomaly occupies a flat area which slopes gently toward the Trond River (southeast). Topography suggests that there may be soil creep toward the river or that there may have been a mud slide toward the river. The area is partly wet and swampy (see Diamond Drill Hole #16).

DIAMOND DRILLING

The diamond drill program started on June 30th and ended on August 10th. The drilling was carried out 24 hours per day with two drillers on 12-hour shifts each. The drill crew alternated with a second two-man crew. A total of about eight days were taken up in moving, waiting for helicopter and cementing of three holes. Short moves, up to 300 metres, were accomplished with a winze. The rig was pulled continuously over planks to avoid ripping the ground. Longer moves were done by helicopter. The most cost-efficient helicopter moves were obtained with a helicopter lifting one tonne. The vans used as accommodation for the drillers required a larger helicopter for moving (1.8 tonnes). They were placed at a central location and required only one move. On demobilization a large helicopter was used (2.8 tonnes) as all others were on forest fire work.

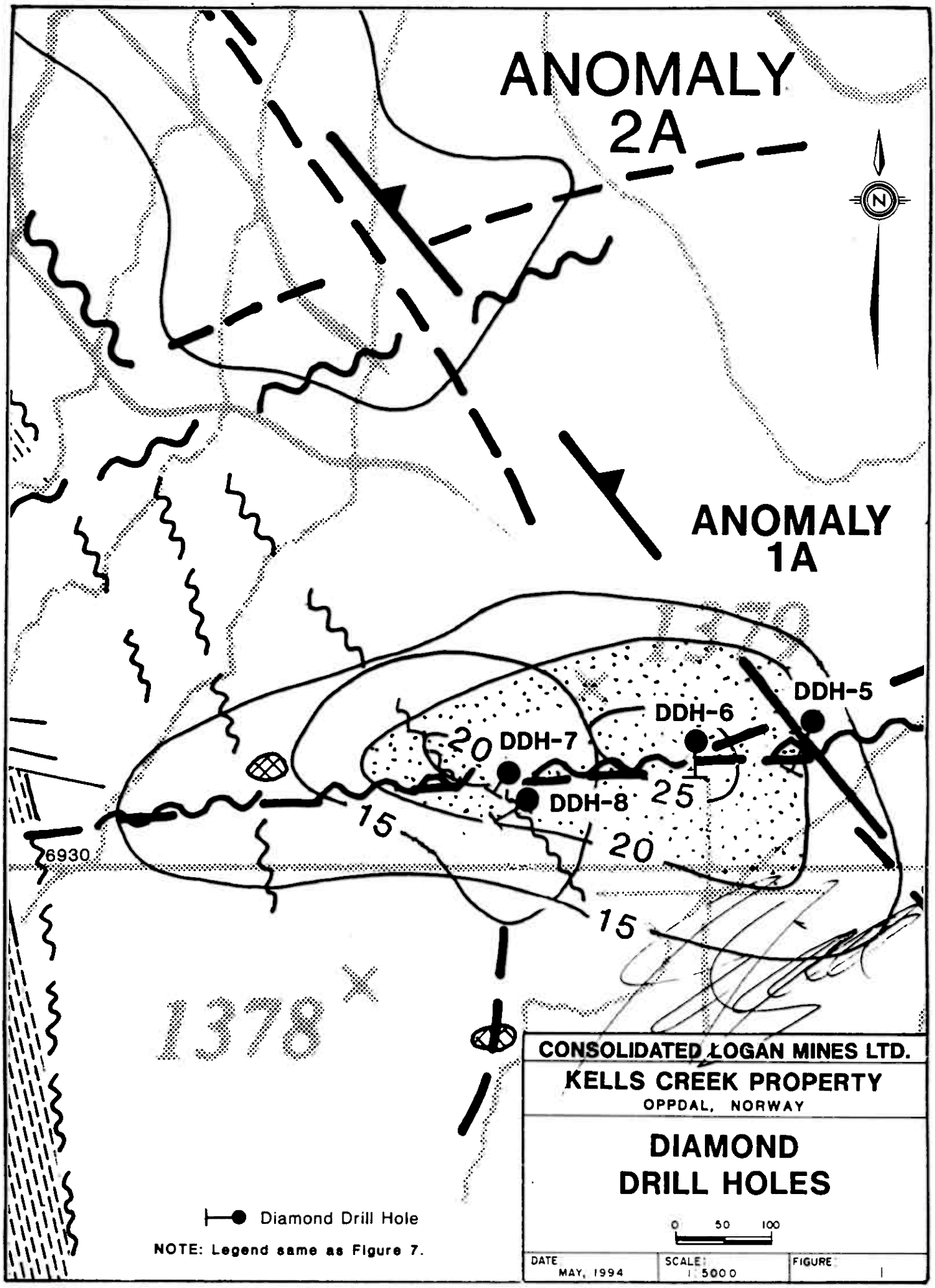
The core boxes were flown out to a core shack, prepared for this use, down in the valley. Flights were done only when a helicopter was required for drill moves. The core was roughly logged by the writer before it was flown out while a detailed log was done at the core shack by Milosh Motys, geologist. Mr. Motys worked as a mine geologist for 25 years at the nearby "Hjerkin Gruve", a 15-million tonne volcanogenic massive sulphide ore body. The core was marked out by him for sampling. The core to be sampled was then split with a diamond saw. The samples were taken to "Folldal" old mine 80 kilometres distant. The samples were crushed with jaw and cone crushers, and split to 1/8th or 1/16th of original volume, placed in Kraft paper bags, and shipped to Acme Analytical Laboratories for analysis - ICP 30 elements and gold. The remainder was taken back and stored at the core shack with Odd G. Horvli, Driva. The core was also stored here but later picked up and moved to Lokken at NGU's core library.

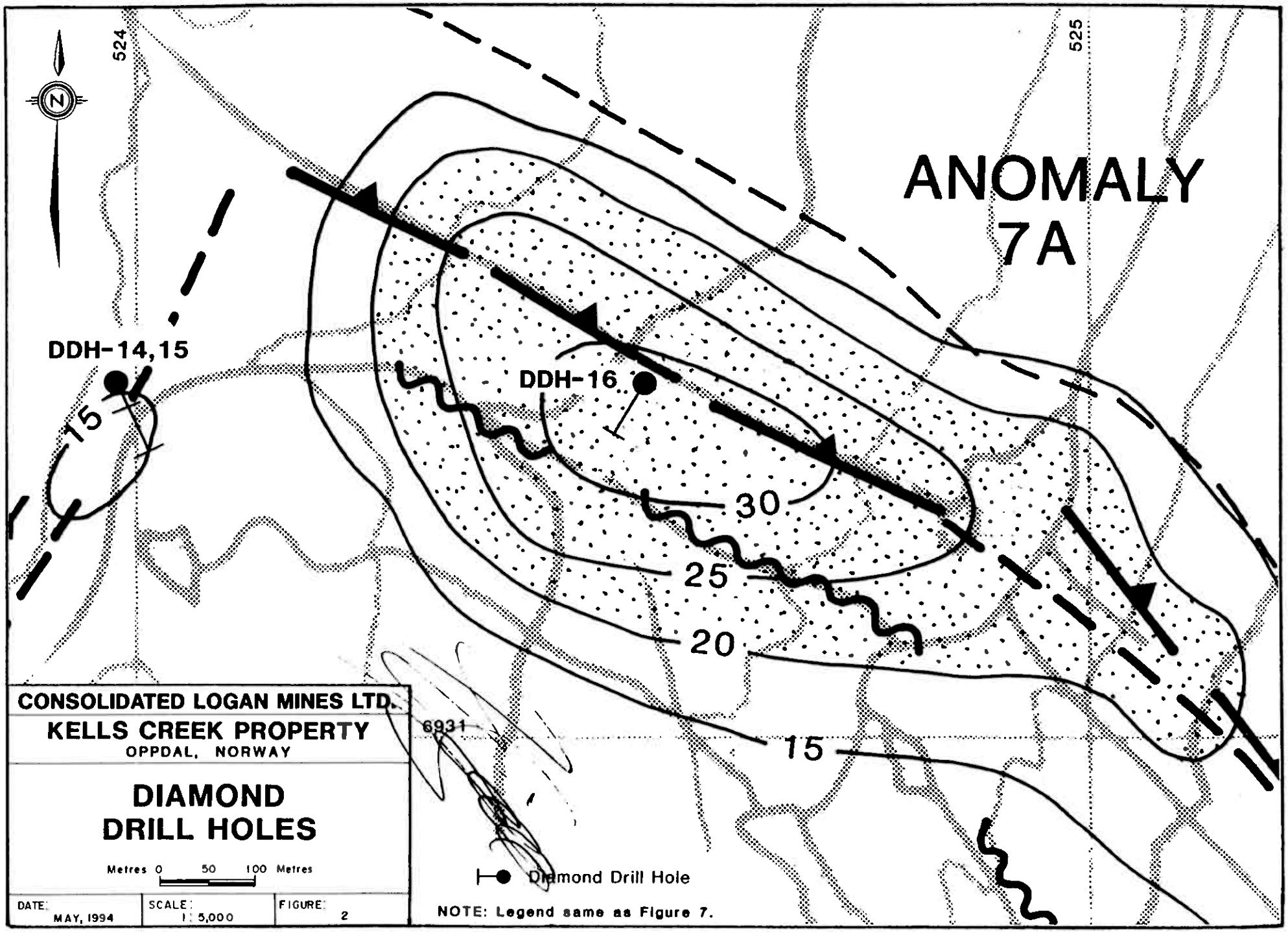
THE LIST OVER CORE SAMPLES FOR ASSAYING
FROM TRIAL HOLES FROM THE EXPLORATION PROJECT
"KELLS CREEK", GRAAURDFJELLET - OPPDAL, NORWAY

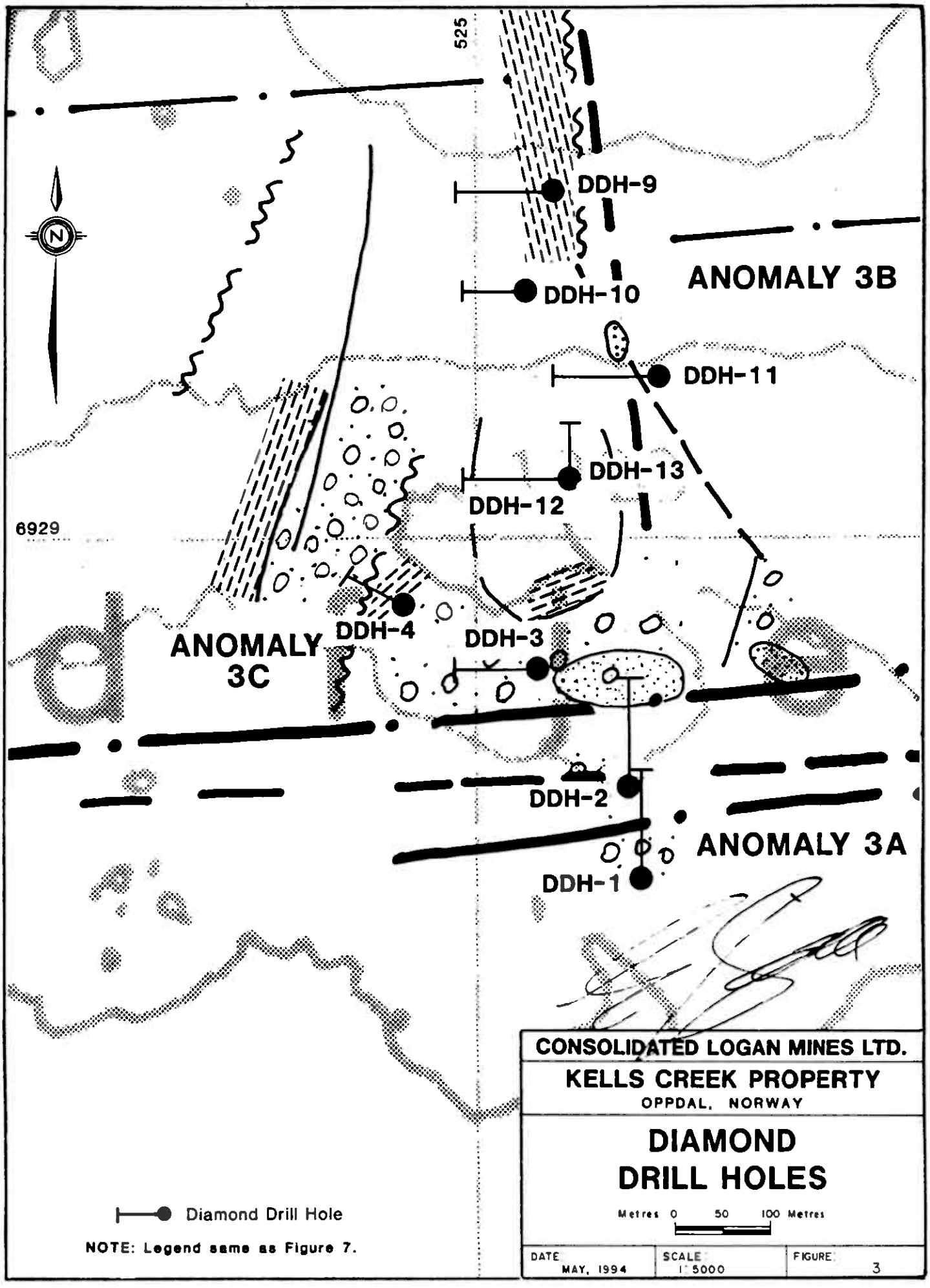
Hole No.	Depth of Hole m.	Number of Samples	Length of Sampled Zone m	Average Length of Sample m	Percent of Sampled Zone %
1 (3A)	95.60	17	34.00	2.0000	35.5649
2 (3A)	100.20	27	46.00	1.7037	45.9082
3 (3A)	112.60	28	27.05	0.9661	24.0231
4 (3C)	61.55	12	24.00	2.0000	38.9927
5 (1A)	110.55	10	20.15	2.0150	18.2270
6 (1A)	103.20	16	26.40	1.6500	25.5814
7 (1A)	25.30	9	15.10	1.6778	59.6838
8 (1A)	61.75	22	35.00	1.5909	56.6802
9 (3B)	136.00	27	43.65	1.6167	32.0956
10 (3B)	75.60	19	30.65	1.6132	40.5423
11 (3B)	156.35	24	41.20	1.7167	26.3511
12 (3B)	149.55	26	42.45	1.6327	28.3852
13 (3B)	77.90	14	26.00	1.8571	33.3761
14 (6)	17.00	0	0.00	0.0000	0.0000
15 (6)	49.50	10	19.00	1.9000	38.3838
16 (7)	96.00	17	32.00	1.8824	33.3333
SUM	1428.65	278	462.65	1.6642	32.3837

Oppdal, 15.08.94

Milosh H. Motys


ANOMALY
2A
ANOMALY
1A
N
DDH-5
DDH-6
DDH-7
DDH-8
20
25
15
20
15
6930
1378
Diamond Drill Hole
NOTE: Legend same as Figure 7.
CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY
OPPDAL, NORWAY
DIAMOND
DRILL HOLES
0 50 100
DATE
MAY, 1994
SCALE:
1:5000
FIGURE
1


524
525
ANOMALY
7A
DDH-14,15
DDH-16
15
30
25
20
15
6931
CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY
OPPDAL, NORWAY
DIAMOND
DRILL HOLES
Metres 0 50 100 Metres
DATE: MAY, 1994
SCALE: 1: 5,000
FIGURE: 2
Diamond Drill Hole
NOTE: Legend same as Figure 7.


525
DDH-9
DDH-10
ANOMALY 3B
DDH-11
DDH-13
DDH-12
6929
DDH-4
DDH-3
ANOMALY
3C
DDH-2
ANOMALY 3A
DDH-1
N
Diamond Drill Hole
NOTE: Legend same as Figure 7.
CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY
OPPDAL, NORWAY
DIAMOND
DRILL HOLES
Metres 0 50 100 Metres
DATE
MAY, 1994
SCALE
1" 5000
FIGURE
3

DISCUSSION OF DRILL HOLE GEOLOGY

HOLE #1 (3A) - ANOMALY DESIGNATION
HOLE #2 (3A)

These holes were located uphill from some of the gneiss blocks which carried good gold values. Interpreted east-west structures would be examined. The holes intersected ortho gneiss with considerable K-feldspar and muscovite-sericite. Some recrystallized biotite was noted in some places. Hydrothermal leach cavities are almost ubiquitous. Several zones of fault (young?) and mylonite (old?) were noted. They lie from 10 to 30° to core axis and could conceivably strike east-west and dip north 55 to 75° degrees or 15-35° north. Considerably more conglomerate than anticipated was encountered.

The gold values in Diamond Drill Hole #1 were very low but compared to the older holes, should be considered anomalous. This is perhaps significant considering its proximity to the mineralized blocks.

HOLE #3 (3A)

This hole was drilled on the basis of geology which interpreted an anticlinal axis striking north-south in this area. The hole intersected a perfect anticlinal sequence from mica schist conglomerate through mica schist gneiss and mica schist to a core of quartz, K-feldspar gneiss which has been brecciated, sealed, silicified, K-feldspathized, leached, kaolinized and again to mica schist, mica schist gneiss and mica schist conglomerate.

The highly altered core is singularly deficient in all economic minerals.

The anticlinal plane should strike north and perhaps slightly east and dip to the east at about 50°. It appears that the anticline can be recognized again in Diamond Drill Hole #12 in

which case the anticlinal axis may plunge to the north.

HOLE #4 (3C)

This hole was drilled to examine a possible fault based on geological mapping. It encountered a broken zone which may represent a fault. If so the fault seems weak and may not be significant.

HOLE #5 (1A)

This hole was drilled in Anomaly 1A and laid out to intersect the Main east-west fault as well as the crossing (assumed) thrust fault. The hole intersected narrow pseudo-discordant biotite-phlogopite zones which may be expressions of thrusting indicating dips of 35 to 50° east. If this is a thrust, it is a weak minor one.

Brecciated leached zones at 75.0 to 77.5 metres and at 100.35 to 102.25 metres may be the footwall and hanging wall zones of the Main east-west fault. The intervening rock is lightly altered and broken. The fault appears to be a minor one in spite of its strong surface expression. It may dip vertically or very steeply to the south. No values of significance were obtained.

HOLE #6 (1A)

This hole was drilled through the centre of the 1A VLF-EM anomaly (Cutler Station) and intersected the main east-west fault from 72.45 to 90.2 metres. The fault dips vertically. Very slightly elevated gold values were obtained about 48.5 to 52.5 metres.

HOLE #7 (1A)

This hole was laid out to cut the centre of the VLF-EM anomaly (Helgeland, Norway Station) and to cut the intersection area of the Main east-west fault and the second northwest striking fault.

From 19.0 to 25.3 metres, the hole intersected the fault zone which proved to be brecciated, strongly altered and leached. The hole was abandoned. The samples returned no values of interest.

HOLE #8 (1A)

When Diamond Drill Hole #7 had to be abandoned, the drill was moved and located to drill the northwest striking fault only close to its junction with the Main east-west fault and still well within the VLF-EM anomaly. The hole intersected broken rock and a mylonitic zone at 9.6-18.0 metres which corresponds to a slight dip in the surface and indicates a fault dipping 76° northeast. At 50.0-51.9 metres a mylonitic(?) zone corresponds to a dip in the surface and may represent a zone of movement which dips vertically. There has been K-feldspathization outward decreasing on each side of this zone.

HOLE #9 (3B)

This hole was based on geological mapping results. Several areas of copper staining had been mapped in the north-south striking gneiss. The hole cut paragneiss and conglomerate all of which had leach cavities with kaolin coating and sometimes chrysocolla. A few samples contained copper values.

HOLE #10

The hole was based on geological mapping and trenching which exposed an ortho-gneiss containing disseminated copper staining (malachite). Muscovite in the ortho gneiss had a green cast (vanadium?) the hole intersected paragneiss, conglomerate and a narrow zone from 25.25 to 25.65 metres which may be a dyke corresponding to the mineralized ortho gneiss located in the trench. The dyke(?) did not contain any minerals but did have the characteristic green mica (the "green" is a dirty grey greenish colour).

HOLE #11

The hole was drilled to check a zone of coincident VLF-EM and positive magnetic anomaly. The anomalies are of low to moderate strength and not well defined (geophysicist Ron Sheldrake recommended the area). The hole was located at the intersection of the axis of the anomalies (uncertain). The hole cut mostly biotite gneiss which had all been leached and to some degree altered. Several zones of biotite and epidote-chlorite were noted, perhaps representing dykes or tuffs.

The first 40 metres of the hole cut an ortho gneiss which showed numerous fracturing-jointing which had been sealed with quartz. Several areas of recrystallized biotite were noted.

Some samples gave anomalous values in copper and zinc.

HOLE #12

The hole was drilled south of an inferred (airphoto) fault. In order to check the anticlinal zone tentatively mapped (1993) and located in Hole #3. A similar sequence of rocks were noted, i.e. mica schist conglomerate to ortho gneiss back to mica schist conglomerate. The ortho gneiss

in the core off the anticline was not as altered and broken as in Diamond Drill Hole #3, but did have some silicification.

The remainder of the hole showed in part strong leaching. No significant values were obtained in the hole.

HOLE #13

This hole was drilled to check on an inferred (airphoto) fault north of Diamond Drill Hole #12. Much of the hole showed fractured and broken core, particularly toward the end. The inferred fault was possibly encountered in this area. The fault was not mineralized. One sample gave anomalous values in Zn, Ni, Co, Mn, Fe, V, Cr, Mg, Ba, Al, and K (#9761 46.85-48.0 m).

HOLE #14

This hole was drilled to intersect a structural zone in the valley of Fishhook Creek which gave VLF-EM anomaly 6. The hole was abandoned at 17.0 metres due to heavy caving and the drill rods were steepened, designated as Diamond Drill Hole #15, in an attempt to avoid caving.

HOLE #15

The hole was drilled to intersect a probable structure in Fishhook Creek indicated by VLF-EM survey. The hole was drilled at -57° in an attempt to avoid caving. The hole cut gneiss which was strongly leached (cavities) and increasingly kaolinized and sericitized down to 39 metres. For the next 10 metres, 1.5 metres was recovered in a sandy mix of muscovite-biotite, sericite-quartz and smokey quartz fragments. The hole was abandoned although it had been designed to reach 120 metres. Sample from the hole gave no values of interest.

HOLE #16

The hole was laid out to cut VLF-EM anomaly 7. The anomaly covers an area about 1,000 metres by 100 to 300 metres. It is the largest and strongest VLF-EM anomaly on the property. In spite of this, geophysicists have expressed little interest in it.

The hole was drilled at -60° as loose rock and possible deep overburden was expected in this flat swampy ground. The overburden proved to be only 2.5 metres deep. The hole intersected gneiss relatively high in biotite and some micaceous metaconglomerate(?). The core showed leach cavities throughout with some kaolin. The core had a sandy feel to it and from about 70 metres broken and sandy sections were seen. From 83.0 to 96.0, only 0.8 metres was recovered as a sand consisting of muscovite, phlogopite, quartz and quartz fragments. The samples gave no values of interest.

SURVEYING

Limited soil surveys north of Kells Lake and south around the location of high grade gneiss blocks has failed to find anomalous values in the soil. Limited radiometric surveying has not located any anomalous areas.

A statistical check on a small number of samples (11) showed no positive correlation between uranium and gold.

GLACIATION

Glaciation in the area appears to have been light and yet conspicuous foreign boulders are scattered around indicating movement of considerable distance. Overburden usually consists of rounded to subangular boulders, gravel, silt and limited clay. No typical basal moraine has been identified. Areas of well rounded boulder fields indicate large water movement and areas of abundant craggy outcrops perhaps indicate washing away of overburden. Overburden encountered in drill holes was usually between one and two metres; only in two areas did it exceed two metres - beside Kells Lake, 3.1 metres vertically, and at Anomaly 7A, 2.2 metres on a flat where there is no outcrop within 100 metres.

Solifluction has taken place in the area of Anomaly 7A and on the south-facing slopes towards Kells Lake and in the swampy area east of the lake.

The first large high grade angular block was found (1991) on top of a rounded overburden ridge. Shallow excavation did not locate any more blocks. The writer located a small piece (3x3x1 cm) carrying visible gold about five metres from the excavation. The piece was embedded in the silty overburden, discoloured on the bottom and had obviously been there for a very large number of years. The overburden consists of rounded to subangular boulders, gravel, sand, silt, and minor clay.

The mineralized blocks do not appear to be frost-heaved up from a local source. The ridge does not appear to be solifluction material. It may be end moraine formed by a late local ice sheet. It is convex towards the southeast, and sculpted on its northwest side by later water. Soil surveying on this rather flat inner side of the ridge showed partly good soil horizons but gave no values.

GEOLOGY

The objective of the diamond drill program was to locate the source of blocks of gneiss containing high grade gold which has been found in the area from time to time since 1991. The drill Holes were placed to check for mineralization in structures and possible hydrothermal alteration zones which had been located by the geophysical survey and/or the geological mapping. The drill program found that the area had suffered pervasive leaching which left small cavities, elongated along foliation, containing thin coatings of kaolin and occasionally chrysocolla.

The area which was drilled south of Kells Lake (Diamond Drill Holes #1, #2, and #3) consist mainly of micaceous conglomerate and gneiss containing quartz, much pink-red feldspar orthoclase and anorthosite, muscovite, and little if any biotite. The gneiss also contain disseminated flecks and flakes of specular hematite. It should be noted that all the specular hematite in this area is much harder than usual and its streak is more brown-black than red.

North of Kells Lake this same association of quartz, red feldspar, muscovite, and disseminated hematite is found in a few conformable zones. These zones are usually located next to a layer of conglomerate and between the two rock types is usually found a layer of micaceous schist or schisty gneiss. This layer may have been a zone of weakness and/or movement and a zone of hydrothermal access, as well as in some cases giving room to amphibolitic lenses. The red feldspars, muscovite-sericite, hematite and sometimes silicification may at least in part be the products of alteration. In two diamond drill holes alteration of this nature was noted next to a fault or fracture and decreasing outward. Mapping (1993-94) noted ortho gneiss with much red feldspar and pyrite next to the schist layer (at line 100S, 950E) and decreasing away from it.

Throughout the property, this association of red feldspar, quartz, muscovite and hematite makes up frequent coarse grained metapegmatite lenses varying in size from less than 1.0 metre long and 0.1 metre wide to 20 to 30 metres long and 3 to 4 metres wide. Usually the lenses are conformable to foliation and the gneiss folds conformably along the lenses. Occasionally there are cross-cutting veins or dykes of similar composition.

Another area with similar mineralogy extends from Graaurd Creek (east boundary of the claims) and west for 400 to 800 metres. The area was mapped as an intrusive body due to its homogeneity. It contains white and pink feldspar, quartz, muscovite, and finely disseminated hematite. The body is also geophysically homogeneous (VLF-EM, magnetic) other than two areas of dipoles noted in ground geophysics. The significance of dipoles is not known tot he writer. On the boundaries of the body (NE and SE) and near the dipoles (SE) are found an abundance of keratophyre float and also angular blocks of a darker gneiss not seen on other parts of the property.

To the north of Kells Lake the rock types can be divided into two areas; those north and west of Kells Lake are darker due to higher biotite content and those north and east of the lake are lighter with less biotite. Those to the west have frequent oxidized zones (pyritic - no gold values) and those to the east have more conglomeratic and adjoining light coloured gneiss in repeating layers. These more biotitic (10-20%) layers stand out in the drill core analysis as zones with higher content of K, Al, Mg, Mn, Fe, Cr, Ni, and Zn. If all the core has been analyzed, the results may have been a very useful mapping aid. In Diamond Drill Hole #13, in Sample #9761 from 46.85 to 48.0 metres, there were very high values in these elements. The core should be rechecked in this zone.

The area north of Trond River around Fishhook Creek is also a grey gneiss, higher biotite content area which has in part been heavily leached. The leaching produces sand and sandy gneiss and less clay. The spring run-off, which is the only time of the year when numerous small creeks flow, carries and chokes with large volume of sand. It may be that silt sampling gives much diluted values due to the volume of sand moved.

Rock type designation is in many cases very uncertain, especially as regards conglomerate, agglomerate, lapilli tuff, porphyry, and augen gneiss. A more extensive microscope (and analysis?) study must be undertaken to sort this out.

A very large number of discordant and concordant zones of biotite, phlogopite, chlorite, muscovite, and sometimes epidote and varying amounts of quartz and feldspar have been noted in the core. The zones are usually narrow, 5 to 30 cm, and seldom over one metre wide. They have been interpreted as mylonitic zones - zones of movement and perhaps sometimes amphibolitic dykes. One such zone in the cliffs to the south, a little below the peneplain, contains considerable malachite and azurite and a speck of gold was also identified although samples to date have not returned more than a fraction of a gram per tonne.

CERTIFICATE

I, **EGIL LIVGARD**, of 1990 King Albert Avenue, Coquitlam, B.C., do hereby certify:

1. I am a Consulting Geological Engineer, practising from #436 - 470 Granville Street, Vancouver, B.C.

2. I am a graduate of the University of British Columbia, with a B.Sc., 1960 in Geological Sciences.

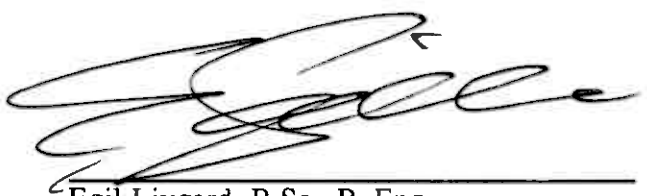
3. I am a registered member in good standing of the Association of Professional Engineers of the Province of British Columbia (Reg. No. 7236).

4. I have practised my profession for over 25 years.

5. This report dated October 26th, 1994 is based on the writer's work on the property from June 30th to August 10th, 1994.

6. I do not have a direct or indirect interest in, nor do I beneficially own, directly or indirectly, any securities of Consolidated Logan Mines Ltd. or any associate or affiliate of Consolidated Logan Mines Ltd. My wife owns 208,000 common shares of Consolidated Logan Mines Ltd.

Dated at Vancouver, British Columbia this 26th of October, 1994.



Egil Livgard, B.Sc., P. Eng.

Appendix I

Kells Creek Property, Oppdal, Norway

Core Logs: Main Headings

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #1 (3A)

LOCATION: UTM 6928650N, 525173E	GRID: 1217S, 1000E
ATTITUDE: Azim. North	Dip -45°
ELEVATION ASL: 1306 m	DEPTH OF HOLE: 95.6 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 2.0 m	OVERBURDEN
2.0 - 31.1 m	QUARTZ-FELDSPAR-ORTHO GNEISS 5.3-5.4, 5.75-5.85 m - metapegmatite almost perpendicular to foliation - adjoining rock shows ptygmatic folding
31.1 - 72.45 m	CONGLOMERATE (agglomerate?) Hydrothermal leach cavities; 50-55 m - recrystallized biotite
72.45 - 73.50 m	FAULT - Schist, quartz fragments Irregular 10° to core axis
73.50 - 95.6 m	CONGLOMERATE Hydrothermal leach cavities; 66-80 m re-crystallized biotite
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #2 (3A)

LOCATION: UTM 6928740N, 525168E	GRID: 1130S, 1000E
ATTITUDE: Azim. North	Dip -45°
ELEVATION ASL: 1318 m	DEPTH OF HOLE: 100.2 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.95 m	OVERBURDEN
1.95 - 8.6 m	QUARTZ-FELDSPAR-ORTHO GNEISS
8.60 - 68.55 m	MICA SCHIST CONGLOMERATE Hydrothermal leaching; 27.4-27.8 m - fracture zone
68.55 - 69.25 m	MYLONITE Schist-rubble breccia 40-45° to core axis cutting foliation
69.25 - 71.15 m	QUARTZ-FELDSPAR-MUSCOVITE ORTHO GNEISS Hydrothermal leach cavities
71.15 - 72.35 m	MYLONITE Chlorite-biotite schist
72.35 - 74.90 m	CHLORITE-SERICITE SCHIST Partly brecciated hydrothermal leach cavities
74.9 - 76.05 m	MYLONITE Chlorite-sericite biotite schist
76.05 - 87.75 m	MICA SCHIST CONGLOMERATE - Hydrothermal leaching, kaolinization, sericitization - regressive metamorphism
87.75 - 98.45 m	QUARTZ-FELDSPAR-MUSCOVITE ORTHO GNEISS - Strong hydrothermal leaching (cavities); silicification along fractures
98.45 - 100.2 m	QUARTZ-FELDSPAR ORTHO GNEISS Very strong hydrothermal leaching (cavities)
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #3 (3A)

LOCATION: UTM 6928850N, 525065E	GRID: 1006S, 903E
ATTITUDE: Azim. 270°	Dip -50°
ELEVATION ASL: 1330 m	DEPTH OF HOLE: 112.6 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.35 m	OVERBURDEN
1.35 - 35.05 m	MICA SCHIST CONGLOMERATE Some hydrothermal leaching
35.05 - 38.4 m	MICA SCHIST-GNEISS Biotite, chlorite, sericite, feldspar, leaching
38.4 - 39.60 m	MICA GNEISS - Leaching
39.6 - 46.4 m	MICA SCHIST - Muscovite, biotite, chlorite, leach cavities, kaolinization, biotite changed to phlogopite chlorite
46.4 - 47.7 m	QUARTZ-FELDSPAR ORTHO GNEISS Leach cavities, kaolinization, albitization
47.7 - 66.8 m	BRECCIA - Quartz-k-feldspar ortho gneiss brecciated, k-felspathized, albitized, strongly silicified, leached, kaolinized
66.8 - 69.45 m	MICA SCHIST-GNEISS - Muscovite, chlorite, biotite
69.45 - 72.7 m	MICA SCHIST Biotite, chlorite, muscovite, hydrothermal leaching
72.7 - 76.55 m	MICA SCHIST-GNEISS Biotite, chlorite, muscovite leached
76.55 - 76.75 m	QUARTZ VEIN
76.75 - 94.4 m	MICA SCHIST - Chlorite, muscovite, biotite, strong hydrothermal leaching; 93.0-93.55 m some gouge - possible movement
94.4 - 112.6 m	MICA SCHIST CONGLOMERATE Some leach cavities
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #4 (3C)

LOCATION: UTM 6928930N, 524930E	GRID: 915S, 775E
ATTITUDE: Azim. 270°	Dip -50°
ELEVATION ASL: 1323 m	DEPTH OF HOLE: 61.55 m (abandoned due to caving)

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.5 m	OVERBURDEN
1.5 - 7.35 m	QUARTZ-FELDSPAR ORTHO GNEISS Leach cavities
7.35 - 9.55 m	BIOTITE PARAGNEISS
9.55 - 26.35 m	MICA SCHIST PARAGNEISS 19 - 26.35 m - Fault(?) - broken-sandy-quartz-feldspar fragments
26.35 - 61.0 m	MICA SCHIST CONGLOMERATE Hydrothermal leaching, minor quartz in fractures
61.0 - 61.55 m	QUARTZ
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #5 (1A)

LOCATION: UTM 6930155N, 525878E	GRID: 200S, 1775E
ATTITUDE: Azim. 270°	Dip -55°
ELEVATION ASL: 1365 m	DEPTH OF HOLE: 110.55 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 2.4 m	OVERBURDEN
2.4 - 7.3 m	GREY AGGLOMERATE(?) GNEISS
7.3 - 7.35 m	BIOTITE CHLORITE METAMYLONITE Possible weak thrust zone
7.35 - 11.7 m	LIGHT (AGGLOMERATE?) GNEISS
11.7 - 13.4 m	GREY GNEISS - Partly broken - party biotite-chlorite metamylonite. **Probable location of assumed thrust fault** located in shallow surface dip. The assumed thrust fault is then weak and dipping East 41°. It appears to have displaced the main East-West fault about 13 m in a left-handed movement.
13.4 - 75.0 m	DARK GREY AGGLOMERATE(?) GNEISS
75.0 - 77.5 m	Leached sandy dark grey gneiss - quartz brecciated. **Probable location of the footwall of the steeply south-dipping main East-West fault.**
77.5 - 100.35 m	GREY AGGLOMERATE GNEISS
100.35 - 102.25	GNEISS - Partly fragmented core - hematite stained - leaching - chlorite - brecciated quartz. **Probable location of hanging wall of main East-West fault.** Dip 87° south. The fault is weak without major movement. 100-25-110.55 m - dark agglomerate(?) gneiss
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #6 (1A)

LOCATION: UTM 6930130N, 525753E	GRID: 185S, 1650E
ATTITUDE: Azim. 190°	Dip -55°
ELEVATION ASL: 1365 m	DEPTH OF HOLE: 103.2 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.45 m	OVERBURDEN
1.45 - 72.45 m	BIOTITE-MUSCOVITE PARAGNEISS
72.45 - 90.2 m	FAULT ZONE - Main East-West fault with a steep south dip; partly brecciated; contorted schist; strong hematite stain at 87-88m
90.2 - 103.2 m	BIOTITE-MUSCOVITE SCHIST Strong hydrothermal leaching, minor copper stain
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #7 (1A)

LOCATION: UTM 6930100N, 525555E	GRID: 168S, 1452E
ATTITUDE: Azim. 215°	Dip -55°
ELEVATION ASL: 1363 m	DEPTH OF HOLE: 25.3 m (abandoned due to caving)

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.5 m	OVERBURDEN
1.5 - 6.85 m	QUARTZ-FELDSPAR ORTHO GNEISS
6.85 - 16.95 m	BIOTITE-MUSCOVITE GNEISS Fractured and brecciated
16.95 - 19.0 m	QUARTZ-FELDSPAR ORTHO GNEISS Strong fracturing
19.0 - 25.3 m	FAULT ZONE - Intersection area of faults, NW fault - azim. 140° and main East-West fault which appears to have offset the NW fault about 50 m horizontally in a left-handed movement. Brecciation, sericitization, chloritization, kaolinization, leaching - caving and core loss.
END OF HOLE	HOLE ABANDONED.

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #8 (1A)

LOCATION: UTM 6930065N, 525572E	GRID: 135S, 1465E
ATTITUDE: Azim. 240°	Dip -55°
ELEVATION ASL: 1362 m	DEPTH OF HOLE: 61.75 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.6 m	OVERBURDEN
1.6 - 9.6 m	BIOTITE-MUSCOVITE SCHISTOSE GNEISS
9.6 - 18.0 m	PROBABLE FAULT ZONE - Part rubble, part mylonitic zones - corresponds to a slight dip on the surface indicating a 76° northeasterly dip - azim. of fault 140-145°.
18.0 - 29.7 m	BIOTITE SCHISTOSE GNEISS
29.7 - 50.0 m	QUARTZ-FELDSPAR-BIOTITE ORTHO GNEISS
50.0 - 51.9 m	FAULT - corresponds to slight dip in surface topography - strike 145°, dip vertical. Biotite schist (mylonitic?) - increasing pink k-feldspar near fault on both sides.
51.9 - 61.75 m	QUARTZ-FELDSPAR ORTHO GNEISS Increasing in biotite toward the end; 53.9-54.8 m - spotty green-blue mineral - chrysocolla(?).
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #9 (3B)

LOCATION: UTM 6929362N, 525070E	GRID: 500S, 950E
ATTITUDE: Azim. 270°	Dip -45°
ELEVATION ASL: 1355 m	DEPTH OF HOLE: 136.0 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
	NO OVERBURDEN
0 - 9.6 m	QUARTZ-FELDSPAR-BIOTITE PARAGNEISS
9.6 - 12.2 m	AS ABOVE With increasing pink feldspar and decreasing biotite; at 12.2 m - fracture or minor fault
12.2 - 13.5 m	AS AT 9.6 - 12.2 M With decreasing pink feldspar and increasing biotite
13.5 - 13.7 m	METAPEGMATITE VEIN Brecciated.
13.7 - 74.7 m	PARAGNEISS - biotite-rich, clay alteration. Some greenish muscovite. 24.3-24.7 m - leach cavities with chrysocolla; 53.0 - 54.8 m - Fault zone, hematite staining
74.7 - 136.0 m	CONGLOMERATE Leach cavities throughout the hole
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #10 (3B)

LOCATION: UTM 6929258N, 525053E	GRID: 1000S, 920E
ATTITUDE: Azim. 270°	Dip -45°
ELEVATION ASL: 1348 m	DEPTH OF HOLE: 75.6 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 2.1 m	OVERBURDEN
2.1 - 18.0 m	PARAGNEISS Much leach cavities
18.0 - 25.25 m	ORTHO GNEISS
25.25 - 25.65 m	DYKE(?) With green mica (vanadium mica?)
25.65 - 49.55 m	BIOTITE GNEISS (Metatuff?) some tight folding
49.55 - 58.55 m	BIOTITE GNEISS Paragneiss, much cavities
58.55 - 61.75 m	BIOTITE GNEISS (Metalapilli tuff?)
61.75 - 75.6 m	CONGLOMERATE Leach cavities throughout the hole
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #11 (3B)

LOCATION: UTM 6929169N, 525190E	GRID: 700S, 1050E
ATTITUDE: Azim. 270°	Dip -45°
ELEVATION ASL: 1339 m	DEPTH OF HOLE: 156.35 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 2.4 m	OVERBURDEN
2.4 - 39.9 m	QUARTZ-FELDSPAR ORTHO GNEISS Hydrothermal leach cavities
39.9 - 87.2 m	QUARTZ-FELDSPAR-BIOTITE GNEISS (Metatuff?) - Recrystallized biotite intermittent sericite-quartz, epidote-chlorite alteration
87.2 - 100.05 m	BIOTITE-GNEISS - Paragneiss - strong leaching; 91.6-96.1 m biotite zones - shearing
100.05 - 100.25m	BIOTITE-GNEISS BRECCIA ZONE
100.25 - 120.5 m	QUARTZ-FELDSPAR-BIOTITE GNEISS Paragneiss, leach cavities
120.5 - 156.35 m	QUARTZ-FELDSPAR-BIOTITE GNEISS (lapilli metatuff?)
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #12 (3B)

LOCATION: UTM 6929067N, 525101E	GRID: 600S, 950E
ATTITUDE: Azim. 270°	Dip -45°
ELEVATION ASL: 1329 m	DEPTH OF HOLE: 149.55 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 4.4 m	OVERBURDEN
4.4 - 29.45 m	AGGLOMERATIC TUFF(?)
29.45 - 35.25 m	FELDSPAR-BIOTITE GNEISS (Ortho gneiss) strong hydrothermal leaching
35.25 - 35.8 m	BIOTITE-SERICITE MYLONITE Discordant
35.8 - 101.45 m	GNEISSIC MICA SCHIST CONGLOMERATE Zones of strong hydrothermal leaching
101.45 - 114.3 m	ORTHO GNEISS - Fine grained recrystallized biotite; 101-45-104.0 - silicified; 108.4-111.0 m - silicified
114.3 - 149.55 m	MICA SCHIST CONGLOMERATE - Strong hydrothermal leaching - some montmorillonite; 147.8-149.5 - core loss
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #13 (3B)

LOCATION: UTM 6929069N, 525104E	GRID: 798S, 953E
ATTITUDE: Azim. North	Dip -45°
ELEVATION ASL: 1329 m	DEPTH OF HOLE: 77.9 m

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 4.5 m	OVERBURDEN
4.5 - 10.3 m	BIOTITE-FELDSPAR GNEISS (Lapilli metatuff?)
10.3 - 44.15 m	QUARTZ-FELDSPAR-BIOTITE GNEISS Several strongly fractured zones, some zeolites(?) on fractures
44.15 - 60.3 m	CHLORITIC MICACEOUS GNEISS Strong hydrothermal leaching
60.3 - 77.9 m	MICA SCHIST GNEISS 60.5-77.9 m - broken rock; **possible fault zone**
END OF HOLE	

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #14 (6)

LOCATION: UTM 6931370N, 523980E	GRID:
ATTITUDE: Azim. 155°	Dip -45°
ELEVATION ASL: 1338 m	DEPTH OF HOLE: 17.0 m (abandoned due to caving)

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 3.0 m	OVERBURDEN
3.0 - 17.0 m	BIOTITE-QUARTZ-FELDSPAR GNEISS (Lapilli metatuff?) Weak weathering to 7.0 m; at 17.0 strong caving - sandy
END OF HOLE	HOLE ABANDONED

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #15 (6)

LOCATION: UTM 6931370N, 523980E	GRID:
ATTITUDE: Azim. 155°	Dip -57°
ELEVATION ASL: 1338 m	DEPTH OF HOLE: 49.5 m (abandoned due to caving)

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 1.5 m	OVERBURDEN
1.5 - 3.8 m	BIOTITE-QUARTZ-FELDSPAR GNEISS Some oxidation
3.8 - 39.0 m	QUARTZ-FELDSPAR-BIOTITE - Strong hydrothermal leaching and increasing kaolinization - sericitization
39.0 - 49.5 m	1.5 m recovery - SAND Muscovite-biotite-sericite and fragments of smokey quartz
END OF HOLE	HOLE ABANDONED

CONSOLIDATED LOGAN MINES LTD.
KELLS CREEK PROPERTY, OPPDAL, NORWAY

Main headings by: E. Livgard, P.Eng. (Geol.)
Detailed log by: Milosh Motys, P.Geol.
Drilled by: Tekobor As., July-August, 1994

DIAMOND DRILL HOLE #16 (7A)

LOCATION: UTM 6931375N, 524530E	GRID:
ATTITUDE: Azim. 220°	Dip -60°
ELEVATION ASL: 1297 m	DEPTH OF HOLE: 96.0 m (abandoned due to caving)

FROM - TO	MAIN ROCK TYPE DIVISIONS
0 - 3.0 m	OVERBURDEN
3.0 - 19.0 m	BIOTITE-QUARTZ-FELDSPAR METACONGLOMERATE
19.0 - 30.6 m	MICA SCHIST GNEISS leach cavities
30.6 - 48.7 m	GNEISSIC MICA SCHIST METACONGLOMERATE/ AGGLOMERATE
48.7 - 69.0 m	QUARTZ-FELDSPAR BIOTITE GNEISS 50.2 - 67.3 m - Strong fracturing
69.0 - 83.0 m	BIOTITE-QUARTZ-FELDSPAR GNEISS Increasing leach cavities - kaolinization
83.0 - 96.0 m	0.8 m core recovery Sand, muscovite, phlogopite, quartz fragments
END OF HOLE	HOLE ABANDONED

Appendix II

Kells Creek Property, Oppdal, Norway

Core Logs: Samples

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 14th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 1 (3A)

1.	03,00 - 05,00 m	=	2,00 m	3851
2.	05,00 - 07,00 m	=	2,00 m	52
3.	07,00 - 09,00 m	=	2,00 m	53
4.	09,00 - 11,00 m	=	2,00 m	54
5.	11,00 - 13,00 m	=	2,00 m	55
6.	13,00 - 15,00 m	=	2,00 m	56
7.	24,00 - 26,00 m	=	2,00 m	57
8.	26,00 - 28,00 m	=	2,00 m	58
9.	28,00 - 30,00 m	=	2,00 m	59
10.	30,00 - 32,00 m	=	2,00 m	60
11.	32,00 - 34,00 m	=	2,00 m	61
12.	48,00 - 50,00 m	=	2,00 m	62
13.	50,00 - 52,00 m	=	2,00 m	63
14.	52,00 - 54,00 m	=	2,00 m	64
15.	70,00 - 72,00 m	=	2,00 m	65
16.	72,00 - 74,00 m	=	2,00 m	66
17.	74,00 - 76,00 m	=	2,00 m	67

The last sample is no. 17 : pr. July 19th 1994.

With the best wishes

Milosh Henrik Motysm

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 20th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 2 (3A)

1.	05,50 - 07,50 m	=	2,00 m	9868
2.	07,50 - 08,65 m	=	1,15 m	9730
3.	08,65 - 09,70 m	=	1,05 m	31
4.	09,70 - 11,70 m	=	2,00 m	32
5.	11,70 - 13,70 m	=	2,00 m	33
6.	56,60 - 58,60 m	=	2,00 m	34
7.	58,60 - 60,60 m	=	2,00 m	35
8.	60,60 - 62,60 m	=	2,00 m	36
9.	62,60 - 64,55 m	=	1,95 m	37
10.	64,55 - 66,55 m	=	2,00 m	38
11.	66,55 - 68,55 m	=	2,00 m	39
12.	68,55 - 69,25 m	=	0,70 m	40
13.	69,25 - 71,15 m	=	1,90 m	41
14.	71,15 - 72,35 m	=	1,20 m	42
15.	72,35 - 73,55 m	=	1,20 m	43
16.	73,55 - 74,90 m	=	1,35 m	44
17.	74,90 - 76,05 m	=	1,15 m	45
18.	76,05 - 78,00 m	=	1,95 m	46
19.	83,80 - 85,80 m	=	2,00 m	47
20.	85,80 - 87,75 m	=	1,95 m	48
21.	87,75 - 89,70 m	=	1,95 m	49
22.	89,70 - 91,70 m	=	2,00 m	50
23.	91,70 - 93,70 m	=	2,00 m	9754

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 2 (3A)

24.	93,70 - 95,70 m	=	2,00 m	9755
25.	95,70 - 97,00 m	=	1,30 m	56
26.	97,00 - 98,45 m	=	1,45 m	57
27.	98,45 - 100,20 m	=	1,75 m	58

The last sample is no. 27 : pr. July 20th 1994.

With the best wishes

Milosh Henrik Motys

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 14th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 3 (3A)

1A.	42,40 - 44,40 m	=	2,00 m	9801
1B.	44,40 - 46,40 m	=	2,00 m	02
1.	46,40 - 47,10 m	=	0,70 m	03
2.	47,10 - 47,45 m	=	0,35 m	04
3.	47,45 - 47,70 m	=	0,25 m	05
4.	47,70 - 48,60 m	=	0,90 m	06
5.	48,60 - 49,50 m	=	0,90 m	07
6.	49,50 - 50,40 m	=	0,90 m	08
7.	50,40 - 51,30 m	=	0,90 m	09
8.	51,30 - 52,20 m	=	0,90 m	10
9.	52,20 - 53,10 m	=	0,90 m	11
10.	53,10 - 54,00 m	=	0,90 m	12
11.	54,00 - 54,90 m	=	0,90 m	13
12.	54,90 - 55,80 m	=	0,90 m	14
13.	55,80 - 56,80 m	=	1,00 m	15
14.	56,80 - 57,80 m	=	1,00 m	16
15.	57,80 - 58,80 m	=	1,00 m	17
16.	58,80 - 59,80 m	=	1,00 m	18
17.	59,80 - 60,80 m	=	1,00 m	19
18.	60,80 - 61,80 m	=	1,00 m	20
19.	61,80 - 62,80 m	=	1,00 m	21
20.	62,80 - 63,80 m	=	1,00 m	22
21.	63,80 - 64,80 m	=	1,00 m	9823

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 3 (3A)

22.	64,80 - 65,80 m	=	1,00 m	G824
23.	65,80 - 66,80 m	=	1,00 m	25
24.	66,80 - 67,60 m	=	0,80 m	26
25.	67,60 - 68,50 m	=	0,90 m	27
26.	68,50 - 69,45 m	=	0,95 m	28

The last sample is no. 28 : pr. July 14th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 28th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 4 (3A)

1.	03,25 - 05,25 m	=	2,00 m	9869
2.	05,25 - 07,35 m	=	2,10 m	-70
3.	07,35 - 09,55 m	=	2,20 m	-71
4.	09,55 - 11,50 m	=	1,95 m	-72
5.	11,50 - 13,45 m	=	1,95 m	-73
6.	20,50 - 22,50 m	=	2,00 m	-74
7.	22,50 - 24,50 m	=	2,00 m	-75
8.	24,50 - 26,35 m	=	1,85 m	-76
9.	26,35 - 28,30 m	=	1,95 m	-77
10.	28,30 - 30,30 m	=	2,00 m	-78
11.	30,30 - 32,30 m	=	2,00 m	-79
12.	56,30 - 58,30 m	=	2,00 m	-80

The last sample is no. 12 : pr. July 28th 1994.

With the best wishes

Milosh Henrik Motysm

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 23th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 5 (1A)

1.	16,20 - 18,70 m	=	2,50 m	9881
2.	18,70 - 20,50 m	=	1,80 m	82
3.	20,50 - 22,75 m	=	2,25 m	83
4.	38,60 - 40,60 m	=	2,00 m	84
5.	40,60 - 42,60 m	=	2,00 m	85
6.	56,00 - 58,00 m	=	2,00 m	86
7.	58,00 - 60,00 m	=	2,00 m	87
8.	77,40 - 79,40 m	=	2,00 m	88
9.	79,40 - 80,45 m	=	1,05 m	89
10.	80,45 - 83,00 m	=	2,55 m	9890

The last sample is no. 10 : pr. July 23th 1994.

With the best wishes

Milosh Henrik Motysm

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 24th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 6 (1A)

1.	32,10 - 34,10 m	=	2,00 m	9891
2.	34,10 - 35,00 m	=	0,90 m	92
3.	35,00 - 37,00 m	=	2,00 m	93
4.	37,00 - 37,80 m	=	0,80 m	94
5.	37,80 - 39,80 m	=	2,00 m	95
6.	41,50 - 43,15 m	=	1,65 m	96
7.	43,15 - 45,10 m	=	1,95 m	97
8.	45,10 - 47,10 m	=	2,00 m	98
9.	48,50 - 50,50 m	=	2,00 m	99
10.	50,50 - 52,50 m	=	2,00 m	9900
11.	52,50 - 54,45 m	=	1,95 m	01
12.	54,45 - 55,35 m	=	0,90 m	02
13.	55,35 - 57,20 m	=	1,65 m	03
14.	72,45 - 73,30 m	=	0,85 m	04
15.	81,70 - 83,45 m	=	1,75 m	05
16.	94,30 - 96,35 m	=	2,00 m	9906

The last sample is no. 16 : pr. July 24th 1994.

With the best wishes

Milosh Henrik Motysm

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 25th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 7 (1A)

1.	04,90 - 06,85 m	=	1,95 m	9907
2.	06,85 - 08,80 m	=	1,95 m	08
3.	08,80 - 10,40 m	=	1,60 m	09
4.	10,40 - 12,90 m	=	2,50 m	10
5.	12,90 - 14,25 m	=	1,35 m	11
6.	14,25 - 15,85 m	=	1,60 m	12
7.	15,85 - 16,95 m	=	1,10 m	13
8.	16,95 - 19,00 m	=	2,05 m	14
9.	19,00 - 20,00 m	=	1,00 m	9915

The last sample is no. 9 : pr. July 19th 1994.

With the best wishes

Milosh Henrik Motysm

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 18th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 8 (1A)

1.	26,70 - 28,65 m	=	1,95 m	9829
2.	28,65 - 29,70 m	=	1,05 m	30
3.	29,70 - 31,75 m	=	2,05 m	31
4.	31,75 - 33,45 m	=	1,70 m	32
5.	33,45 - 35,50 m	=	2,05 m	33
6.	35,50 - 37,50 m	=	2,00 m	34
7.	37,50 - 39,50 m	=	2,00 m	35
8.	39,50 - 41,50 m	=	2,00 m	36
9.	41,50 - 43,15 m	=	1,65 m	37
10.	43,15 - 45,10 m	=	1,95 m	38
11.	45,10 - 47,10 m	=	2,00 m	39
12.	47,10 - 48,75 m	=	1,65 m	40
13.	48,75 - 50,45 m	=	1,70 m	41
14.	50,45 - 51,75 m	=	1,30 m	42
15.	51,75 - 52,80 m	=	1,05 m	43
16.	52,80 - 53,90 m	=	1,10 m	44
17.	53,90 - 54,80 m	=	0,90 m	45
18.	54,80 - 55,80 m	=	1,00 m	46
19.	55,80 - 56,80 m	=	1,00 m	47
20.	56,80 - 57,75 m	=	0,95 m	48
21.	57,75 - 59,60 m	=	1,85 m	49
22.	59,60 - 61,70 m	=	2,10 m	50

The last sample is no. 22 : pr. July 18th 1994.

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 10th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 9 (3A)

1.	06,30 - 08,10 m	=	1,80 m	9942
2.	08,10 - 09,60 m	=	1,50 m	43
3.	09,60 - 11,00 m	=	1,40 m	44
4.	11,00 - 12,00 m	=	1,00 m	45
5.	12,00 - 13,50 m	=	1,50 m	46
6.	13,50 - 13,70 m	=	0,20 m	47
7.	13,70 - 15,50 m	=	1,80 m	48
8.	15,50 - 17,10 m	=	1,60 m	49
9.	17,10 - 19,10 m	=	2,00 m	50
10.	19,10 - 21,10 m	=	2,00 m	51
11.	21,10 - 23,10 m	=	2,00 m	52
12.	23,10 - 24,30 m	=	1,20 m	53
13.	24,30 - 24,70 m	=	0,40 m	54
14.	24,70 - 26,55 m	=	1,85 m	55
15.	26,55 - 28,50 m	=	1,95 m	56
16.	28,50 - 30,40 m	=	1,90 m	57
17.	30,40 - 32,30 m	=	1,90 m	58
18.	32,30 - 34,25 m	=	1,95 m	59
19.	34,25 - 36,20 m	=	1,95 m	60
20.	36,20 - 38,20 m	=	2,00 m	61
21.	52,00 - 53,30 m	=	1,30 m	62
22.	53,30 - 54,85 m	=	1,55 m	63
23.	54,85 - 56,00 m	=	1,15 m	9964

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 9 (3A)

24.	98,00 - 100,00 m	=	2,00 m	9965
25.	100,00 - 102,00 m	=	2,00 m	66
26.	102,00 - 104,00 m	=	2,00 m	67
27.	104,00 - 105,75 m	=	1,75 m	9968

The last sample is no. 27 : pr. August 10th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 11th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 10 (3A)

1.	3,00 - 5,00 m	=	2,00 m	9969
2.	5,00 - 7,00 m	=	2,00 m	70
3.	7,00 - 9,00 m	=	2,00 m	71
4.	9,00 - 11,00 m	=	2,00 m	72
5.	41,00 - 42,75 m	=	1,75 m	73
6.	42,75 - 43,70 m	=	0,95 m	74
7.	43,70 - 44,70 m	=	1,00 m	75
8.	44,70 - 46,55 m	=	1,85 m	76
9.	46,55 - 48,00 m	=	1,45 m	77
10.	48,00 - 49,55 m	=	1,55 m	78
11.	49,55 - 51,50 m	=	1,95 m	79
12.	51,50 - 52,90 m	=	1,40 m	80
13.	52,90 - 53,80 m	=	0,90 m	81
14.	53,80 - 55,65 m	=	1,85 m	82
15.	55,65 - 57,45 m	=	1,80 m	83
16.	57,45 - 59,40 m	=	1,95 m	84
17.	59,40 - 60,90 m	=	1,50 m	85
18.	60,90 - 61,75 m	=	0,85 m	86
19.	61,75 - 63,65 m	=	2,00 m	9987

The last sample is no. ~~24~~ 19 : pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 12th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 11 (3A)

1.	14,00 - 15,70 m	=	1,70 m	9988
2.	15,70 - 17,25 m	=	1,55 m	89
3.	17,25 - 19,15 m	=	1,90 m	90
4.	19,15 - 20,40 m	=	1,25 m	91
5.	20,40 - 22,45 m	=	2,05 m	92
6.	22,45 - 24,20 m	=	1,75 m	93
7.	24,20 - 26,20 m	=	2,00 m	94
8.	45,70 - 47,60 m	=	1,90 m	95
9.	47,60 - 48,45 m	=	0,85 m	96
10.	48,45 - 50,45 m	=	2,00 m	97
11.	50,45 - 52,35 m	=	1,90 m	98
12.	52,35 - 53,40 m	=	1,05 m	9999
13.	53,40 - 54,05 m	=	0,65 m	10 000
14.	54,05 - 56,00 m	=	1,95 m	9701
15.	80,00 - 90,00 m	=	2,00 m	02
16.	90,00 - 92,00 m	=	2,00 m	03
17.	92,00 - 94,00 m	=	2,00 m	04
18.	94,00 - 96,00 m	=	2,00 m	05
19.	96,00 - 98,00 m	=	2,00 m	06
20.	98,00 - 100,00 m	=	2,00 m	07
21.	113,30 - 115,15 m	=	1,85 m	08
22.	115,15 - 117,00 m	=	1,85 m	09
23.	117,00 - 118,30 m	=	1,30 m	9710

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 11 (3A)

24.	118,30 - 120,00 m	=	1,70 m	9711

The last sample is no. 24 : pr. August 12th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 11th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 12 (3A)

1.	56,00 - 58,00 m	=	2,00 m	9916
2.	58,00 - 60,00 m	=	2,00 m	17
3.	60,00 - 62,00 m	=	2,00 m	18
4.	62,00 - 64,50 m	=	2,50 m	19
5.	64,50 - 65,25 m	=	0,75 m	20
6.	65,25 - 67,00 m	=	1,75 m	21
7.	67,00 - 69,00 m	=	2,00 m	22
8.	72,75 - 74,70 m	=	1,95 m	23
9.	74,70 - 75,60 m	=	0,90 m	24
10.	75,60 - 76,30 m	=	0,70 m	25
11.	76,30 - 78,10 m	=	1,80 m	26
12.	78,10 - 79,60 m	=	1,50 m	27
13.	79,60 - 80,20 m	=	0,60 m	28
14.	80,20 - 82,20 m	=	2,00 m	29
15.	114,30 - 116,30 m	=	2,00 m	30
16.	116,30 - 118,30 m	=	2,00 m	31
17.	118,30 - 120,30 m	=	2,00 m	32
18.	120,30 - 121,60 m	=	1,30 m	33
19.	121,60 - 123,50 m	=	1,90 m	34
20.	123,50 - 125,15 m	=	1,65 m	35
21.	125,15 - 126,55 m	=	1,40 m	36
22.	126,55 - 126,85 m	=	0,30 m	37
23.	126,85 - 128,60 m	=	1,75 m	9938

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 12 (3A)

24.	128,60 - 130,50 m	=	1,90 m	4439
25.	144,00 - 146,00 m	=	2,00 m	40
26.	146,00 - 147,80 m	=	1,80 m	41

The last sample is no. 26 : pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 15th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 13 (6)

1.	43,00 - 45,00 m	=	2,00 m	9759
2.	45,00 - 46,85 m	=	1,85 m	60
3.	46,85 - 48,00 m	=	1,15 m	61
4.	48,00 - 50,00 m	=	2,00 m	62
5.	50,00 - 52,00 m	=	2,00 m	63
6.	52,00 - 53,35 m	=	1,35 m	64
7.	53,35 - 55,20 m	=	1,85 m	65
8.	55,20 - 57,00 m	=	1,80 m	66
9.	57,00 - 59,00 m	=	2,00 m	67
10.	59,00 - 61,00 m	=	2,00 m	68
11.	61,00 - 63,00 m	=	2,00 m	69
12.	33,00 - 35,00 m	=	2,00 m	70
13.	35,00 - 37,00 m	=	2,00 m	71
14.	37,00 - 39,00 m	=	2,00 m	9772

The last sample is no. 14 : pr. August 15th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 15th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 15 (6)

1.	22,00 - 24,00 m	=	2,00 m	9773
2.	24,00 - 26,00 m	=	2,00 m	74
3.	26,00 - 28,00 m	=	2,00 m	75
4.	28,00 - 30,00 m	=	2,00 m	76
5.	30,00 - 32,00 m	=	2,00 m	77
6.	32,00 - 34,00 m	=	2,00 m	78
7.	34,00 - 36,00 m	=	2,00 m	79
8.	36,00 - 38,00 m	=	2,00 m	80
9.	38,00 - 39,00 m	=	1,00 m	81
10.	~~47,50~~ 39,00 - 49,50 m	=	2,00 m	9782

The last sample is no. 24 : pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 15th 1994

CONSOLIDATED LOGAN MINES LTD.
v/GEOLOG EGIL LIVGARD, P.ENG.

THE LIST OVER CORE-SAMPLES FOR ASSAYING FROM DRILLHOLE 16 (7A)

1.	18,00 - 20,00 m	=	2,00 m	9712
2.	20,00 - 22,00 m	=	2,00 m	13
3.	22,00 - 24,00 m	=	2,00 m	14
4.	24,00 - 26,00 m	=	2,00 m	15
5.	26,00 - 28,00 m	=	2,00 m	16
6.	28,00 - 30,00 m	=	2,00 m	18
7.	30,00 - 32,00 m	=	2,00 m	19
8.	58,00 - 60,00 m	=	2,00 m	20
9.	60,00 - 62,00 m	=	2,00 m	21
10.	62,00 - 64,00 m	=	2,00 m	22
11.	72,00 - 74,00 m	=	2,00 m	23
12.	74,00 - 76,00 m	=	2,00 m	24
13.	76,00 - 78,00 m	=	2,00 m	25
14.	78,00 - 80,00 m	=	2,00 m	26
15.	80,00 - 82,00 m	=	2,00 m	27
16.	82,00 - 83,00 m	=	1,00 m	28
17.	~~95,00~~ 83,00 - 96,00 m	=	1,00 m	9729

The last sample is no. 17 : pr. August 15th 1994.

With the best wishes

Milosh Henrik Motys
mine ing. geologist

Appendix III

Kells Creek Property, Oppdal, Norway

Core Logs: Assay Results

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2441

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
HULL #1 3.00-5.00	3	6	2	12	.1	10	3	62	1.00	<2	<5	<2	9	11	<.2	2	2	8	.02	.007	35	21	.04	210	.04	3	.34	.06	.24	1
HULL #1 5.00-7.00	3	8	3	16	<.1	13	4	82	1.31	<2	<5	<2	9	9	<.2	<2	4	9	.04	.014	45	19	.06	204	.06	4	.48	.07	.33	1
RE HULL #1 5.00-7.00	4	8	6	17	<.1	13	4	82	1.30	<2	<5	<2	9	9	<.2	<2	<2	9	.04	.014	44	19	.06	202	.05	3	.47	.06	.32	<1
HULL #1 7.00-9.00	3	10	2	14	.2	13	5	84	1.39	<2	<5	<2	9	9	<.2	<2	<2	9	.03	.011	41	25	.06	192	.06	4	.45	.05	.31	1
HULL #1 9.00-11.00	3	8	3	9	<.1	11	3	61	1.20	<2	<5	<2	9	10	<.2	2	<2	10	.02	.009	41	18	.04	300	.05	3	.38	.05	.27	1
HULL #1 11.00-13.00	3	8	5	17	.1	14	5	146	1.70	<2	<5	<2	12	14	<.2	<2	<2	13	.10	.039	50	25	.08	375	.07	4	.52	.05	.34	1
HULL #1 13.00-15.00	4	9	<2	15	.1	14	5	119	.96	<2	<5	<2	8	12	<.2	<2	<2	8	.07	.023	41	26	.09	292	.04	3	.48	.05	.32	1
HULL #1 24.00-26.00	15	21	15	28	.1	45	5	144	2.27	4	<5	<2	9	12	<.2	<2	2	18	.04	.009	34	48	.09	564	.10	6	1.29	.27	1.08	1
HULL #1 26.00-28.00	5	8	8	16	.1	17	3	75	1.55	<2	<5	<2	10	5	<.2	<2	3	12	.02	.008	43	25	.05	96	.07	4	.62	.09	.43	1
HULL #8 26.70-28.65	9	<2	97	<.1	42	17	980	3.57	2	<5	<2	5	83	<.2	<2	<2	73	.52	.089	27	68	2.64	380	.30	2	2.65	.08	2.75	1
HULL #8 28.65-29.70	2	20	8	96	<.1	56	18	1048	3.72	<2	<5	<2	9	101	<.2	<2	8	68	.96	.088	38	91	2.71	270	.25	4	2.73	.07	2.05	<1
HULL #8 29.70-31.75	3	12	3	24	.1	12	3	252	.96	<2	<5	<2	12	48	<.2	<2	5	12	.24	.027	55	22	.27	91	.10	4	.82	.09	.47	<1
HULL #8 31.75-33.45	4	10	8	48	.1	33	7	555	1.88	<2	<5	<2	10	51	<.2	<2	5	30	.20	.031	48	83	1.39	101	.16	3	1.58	.09	1.50	1
HULL #8 33.45-35.50	3	17	2	19	.1	10	2	205	.96	2	<5	<2	10	26	<.2	<2	<2	9	.14	.024	45	18	.22	80	.10	3	.67	.09	.44	1
HULL #8 35.50-37.50	6	16	11	29	<.1	16	2	229	1.20	<2	<5	<2	13	22	<.2	2	5	10	.16	.025	57	24	.18	93	.11	3	.65	.11	.44	1
STANDARD C	21	60	38	129	6.9	72	33	1031	3.96	42	21	6	36	52	16.9	15	22	61	.50	.090	41	60	.89	177	.09	33	1.88	.07	.15	13

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK CHIP Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 8 1994 **DATE REPORT MAILED:** Aug 9/94 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEM PRECIOUS METALS ANALYSIS

Consolidated Logan Mines Ltd. File # 94-2441R

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Au** ppb
HULL #1 3.00-5.00	6
HULL #1 5.00-7.00	9
HULL #1 7.00-9.00	<1
HULL #1 9.00-11.00	5
HULL #1 11.00-13.00	12
HULL #1 13.00-15.00	4
HULL #1 24.00-26.00	7
HULL #1 26.00-28.00	4
HULL #8 26.70-28.65	7
HULL #8 28.65-29.70	4
HULL #8 29.70-31.75	4
HULL #8 31.75-33.45	13
HULL #8 33.45-35.50	16
HULL #8 35.50-37.50	5
STANDARD AU-R	491

9851

#1

9858

9829

9864

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: AUG 10 1994 DATE REPORT MAILED: Aug 15/94 SIGNED BY C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

** TOTAL PAGE.005 **

[redacted] ACME ANALYTICAL [redacted] 852 [redacted] 2 [redacted] EAST [redacted] ST [redacted] NCO [redacted] B. [redacted] V6A [redacted] PHONE([redacted])253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2448

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
HULL #3 42.40-44.40	2	4	5	113	.1	84	18	1249	2.83	4	<5	<2	7	35	<.2	<2	9	53	.43	.100	32	132	2.96	179	.26	3	2.47	.05	2.21	2	4
HULL #3 44.40-46.40	1	5	2	118	.1	55	20	1285	2.54	3	<5	<2	5	22	<.2	<2	6	42	.34	.092	28	92	3.17	210	.25	2	2.50	.03	2.10	1	5
HULL #3 46.40-47.10	2	5	3	26	<.1	55	6	268	.81	<2	<5	<2	10	13	<.2	<2	3	8	.06	.007	29	58	.94	110	.07	2	.76	.10	.65	1	4
HULL #3 48.60-49.50	2	4	3	7	<.1	9	1	75	.55	2	<5	<2	15	4	<.2	3	4	4	.02	.006	44	11	.22	37	.03	2	.31	.05	.27	<1	4
HULL #3 51.30-52.20	1	3	3	9	<.1	5	1	78	.48	<2	<5	<2	14	4	<.2	<2	<2	4	.03	.010	46	7	.26	44	.03	<2	.35	.05	.30	<1	2
HULL #3 52.20-53.10	2	4	3	10	<.1	6	1	72	.49	<2	<5	<2	14	5	<.2	2	3	4	.01	.005	44	8	.28	48	.03	<2	.35	.05	.30	<1	7
RE HULL #3 52.20-53.10	2	3	3	9	<.1	7	1	72	.47	<2	<5	<2	13	5	<.2	2	2	4	.01	.004	43	9	.26	47	.03	<2	.34	.05	.30	<1	10
HULL #3 55.80-56.80	2	4	3	5	<.1	8	1	51	.47	<2	<5	<2	15	4	<.2	2	2	3	.02	.006	42	10	.14	45	.02	2	.25	.05	.22	<1	2
HULL #3 57.80-58.80	1	3	3	6	<.1	5	1	46	.44	<2	<5	<2	15	6	<.2	2	3	3	.03	.011	46	8	.21	41	.03	<2	.30	.04	.25	<1	2
HULL #3 61.80-62.80	3	4	6	4	<.1	10	1	55	.62	<2	<5	<2	13	26	<.2	2	<2	5	.02	.007	39	12	.09	1247	.03	2	.28	.07	.21	1	2
HULL #3 66.80-67.60	2	2	8	15	<.1	12	3	109	1.17	<2	<5	<2	14	8	<.2	<2	4	12	.06	.020	37	12	.41	184	.07	2	.56	.04	.44	<1	2
HULL #3 67.60-68.50	2	3	4	19	.1	17	4	135	.91	<2	<5	<2	12	16	<.2	3	5	10	.28	.104	44	16	.54	158	.07	2	.65	.03	.52	1	10
STANDARD C/AU-R	19	56	38	127	7.0	73	31	1060	3.96	43	17	7	37	50	17.8	15	22	60	.49	.092	42	57	.93	188	.08	33	1.88	.06	.15	12	490

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK CHIP AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 8 1994 **DATE REPORT MAILED:** Aug 16/94 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(6[redacted]53-[redacted] F[redacted]04) [redacted]121

GEOCHEM PRECIOUS METALS ANALYSIS

Consolidated Logan Mines Ltd. File # 94-2433R

1022 - 470 Granville St., Vancouver BC V6C TV5

SAMPLE#	Au** ppb
HULL #3 47.10-47.45	6
HULL #3 47.45-47.70	9
HULL #3 47.70-48.60	<1
HULL #3 49.50-50.40	<1
HULL #3 50.40-51.30	<1
HULL #3 53.10-54.00	10
HULL #3 54.00-54.90	<1
HULL #3 54.90-55.80	1
HULL #3 56.80-57.80	4
HULL #3 58.80-59.80	7
RE HULL #3 58.80-59.80	7
HULL #3 59.80-60.80	4
HULL #3 60.80-61.80	8
HULL #3 62.80-63.80	<1
HULL #3 63.80-64.80	2
HULL #3 64.80-65.80	2
HULL #3 65.80-66.80	6
HULL #3 68.50-69.45	2
STANDARD AU-R	477

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.
- SAMPLE TYPE: ROCK PULP
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 10 1994 DATE REPORT MAILED: Aug 15/94 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2433

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
HULL #3 47.10-47.45	2	9	48	107	<.1	22	3	138	.76	<2	<5	<2	12	5	.2	2	3	7	.10	.006	39	21	.47	61	.06	2	.55	.05	.44	1
HULL #3 47.45-47.70	4	11	267	405	.3	140	18	607	2.22	2	<5	<2	8	10	1.6	2	2	24	.13	.018	43	152	2.77	85	.18	2	2.01	.08	2.29	3
HULL #3 47.70-48.60	1	5	11	30	.1	7	1	63	.43	<2	<5	<2	9	5	<.2	<2	<2	4	.09	.007	33	8	.17	35	.03	2	.30	.04	.23	1
HULL #3 49.50-50.40	3	9	18	37	<.1	10	1	58	.76	<2	<5	<2	18	6	<.2	3	2	5	.03	.006	49	14	.11	64	.04	3	.39	.08	.31	1
HULL #3 50.40-51.30	3	1	59	97	.1	9	2	56	.56	3	<5	<2	17	5	.6	3	2	4	.03	.008	59	14	.11	38	.03	2	.32	.06	.22	1
HULL #3 53.10-54.00	4	8	15	35	<.1	11	2	64	.71	<2	<5	<2	13	8	<.2	<2	2	5	.06	.007	48	15	.16	67	.04	2	.46	.08	.34	1
HULL #3 54.00-54.90	2	5	6	17	<.1	6	1	46	.54	<2	<5	<2	14	6	<.2	<2	3	4	.02	.006	50	10	.11	52	.03	2	.34	.06	.25	<1
HULL #3 54.90-55.80	3	<1	22	43	.1	8	2	55	.53	<2	<5	<2	18	5	.2	3	2	4	.02	.009	53	11	.11	38	.03	<2	.32	.06	.24	<1
HULL #3 56.80-57.80	4	7	8	21	.1	10	2	62	.71	2	<5	<2	17	8	<.2	2	3	5	.03	.007	51	15	.12	60	.03	2	.38	.07	.28	1
HULL #3 58.80-59.80	3	7	5	14	.1	9	1	52	.63	2	<5	<2	18	9	<.2	2	3	5	.03	.009	38	14	.11	61	.03	2	.40	.08	.30	1
HULL #3 59.80-60.80	4	7	15	34	.1	11	2	58	.73	2	<5	<2	18	9	<.2	2	2	5	.02	.007	51	14	.13	65	.04	3	.43	.09	.32	1
RE HULL #3 59.80-60.80	4	6	18	33	<.1	10	1	58	.70	2	<5	<2	18	9	<.2	<2	4	4	.02	.007	50	15	.13	64	.04	3	.41	.08	.31	1
HULL #3 60.80-61.80	3	5	6	11	.1	7	1	34	.72	<2	<5	<2	17	5	<.2	2	4	4	.03	.011	47	12	.06	82	.04	3	.32	.08	.22	1
HULL #3 62.80-63.80	2	5	6	9	.1	7	1	36	.62	3	<5	<2	15	4	<.2	2	4	4	.01	.005	47	11	.05	55	.03	2	.29	.07	.22	<1
HULL #3 63.80-64.80	4	6	12	20	.1	10	1	36	.74	<2	<5	<2	17	5	<.2	2	3	3	.02	.006	52	14	.03	50	.04	<2	.28	.09	.20	<1
HULL #3 64.80-65.80	3	6	6	11	<.1	8	1	54	.77	<2	<5	<2	19	8	<.2	<2	2	6	.03	.009	65	15	.05	135	.03	2	.34	.07	.23	1
HULL #3 65.80-66.80	3	6	6	10	.1	9	2	46	.85	<2	<5	<2	16	7	<.2	2	<2	5	.02	.005	28	13	.07	191	.05	2	.37	.07	.28	<1
HULL #3 68.50-69.45	3	8	9	53	<.1	17	7	270	1.59	<2	<5	<2	11	11	<.2	<2	2	20	.16	.060	34	17	.85	157	.12	3	1.12	.07	1.03	1
STANDARD C	21	60	38	129	6.9	72	33	1031	3.96	42	21	6	36	52	16.9	15	22	61	.50	.090	41	60	.89	177	.09	33	1.88	.07	.15	13

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK CHIP Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 29 1994 **DATE REPORT MAILED:** Aug 9/94 **SIGNED BY.....** .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

[redacted] ANALYTICAL [redacted] LABORATORIES [redacted] [redacted] 2 E[redacted] STREET, [redacted] VANCOUVER B.C. [redacted] V6A 1R6 PHONE (604) 253-3158 FAX (604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2898 Page 1

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb	
9701	1	72	3	83	.5	7	5	745	2.05	<2	<5	<2	11	28	.3	<2	3	38	.23	.053	35	13	.77	151	.20	2	1.14	.05	.99	<1	<5	1	2	#11
9702	<1	29	<2	100	.2	25	10	1046	2.59	4	<5	<2	8	23	.2	<2	3	56	.30	.059	30	47	1.89	224	.23	<2	1.86	.04	1.71	<1	<5	1	9	
9703	<1	11	<2	109	.1	46	10	1074	2.57	3	<5	<2	6	16	<.2	<2	2	40	.22	.056	31	71	2.00	203	.22	3	1.94	.04	1.83	<1	<5	1	<1	
9704	2	9	<2	105	<.1	19	8	1084	2.24	<2	<5	<2	8	28	.2	<2	2	41	.30	.063	37	35	1.41	189	.22	2	1.57	.06	1.40	<1	<5	<1	<1	
9705	1	7	2	145	<.1	44	14	1465	2.94	5	<5	<2	6	28	.3	<2	6	64	.39	.084	34	82	2.06	260	.28	<2	2.06	.05	1.90	<1	<5	<1	4	
9706	<1	74	<2	106	<.1	29	12	1133	2.85	5	<5	<2	7	15	<.2	<2	<2	67	.23	.056	31	60	2.16	228	.24	<2	2.09	.05	1.94	1	<5	2	4	
9707	2	13	2	65	<.1	15	6	700	1.76	<2	5	<2	9	25	.2	<2	<2	25	.34	.051	36	23	1.18	195	.17	<2	1.30	.05	1.14	1	<5	<1	3	
9708	1	69	2	60	<.1	15	12	628	2.06	<2	<5	<2	11	32	<.2	2	5	47	.30	.050	39	25	1.29	1740	.19	<2	1.29	.05	1.13	1	<5	<1	<1	
9709	1	47	3	61	<.1	10	7	592	2.00	<2	<5	<2	13	22	.4	<2	<2	42	.32	.047	36	23	1.25	155	.18	2	1.31	.05	1.14	1	<5	2	2	
9710	1	24	6	55	.1	13	10	570	1.78	3	<5	<2	10	62	<.2	<2	4	37	.32	.049	37	15	1.13	1900	.15	3	1.14	.04	.99	2	<5	<1	<1	
9711	<1	48	2	106	<.1	19	17	1086	3.61	<2	<5	<2	7	36	.2	<2	<2	69	.51	.094	30	22	2.00	471	.36	2	2.16	.03	2.01	1	<5	2	4	
9712	1	22	<2	65	.2	31	11	550	1.68	2	<5	<2	7	20	.2	<2	<2	22	.23	.042	22	30	1.69	89	.16	<2	1.45	.03	1.24	3	<5	1	6	
9713	2	11	2	86	.1	28	10	630	1.58	<2	<5	<2	10	22	<.2	<2	<2	26	.29	.059	37	27	1.77	103	.16	<2	1.40	.03	1.14	1	<5	<1	<1	#16
9714	1	10	7	64	<.1	19	7	579	1.34	4	<5	<2	11	24	<.2	<2	5	22	.30	.060	38	20	1.42	50	.14	<2	1.07	.02	.78	<1	<5	<1	4	
9715	1	10	<2	87	.2	14	8	519	1.30	4	<5	<2	12	20	<.2	4	<2	28	.26	.059	38	24	1.24	56	.12	<2	1.01	.03	.79	1	<5	1	<1	
9716	2	13	4	77	.3	16	11	728	1.81	<2	<5	<2	10	30	<.2	<2	<2	40	.36	.070	42	26	1.71	84	.17	2	1.41	.05	1.08	1	<5	3	6	
9718	1	23	3	64	<.1	28	10	772	1.62	2	<5	<2	7	24	<.2	2	<2	27	.23	.054	31	26	1.78	145	.16	2	1.48	.03	1.31	1	<5	2	1	
9719	1	13	<2	64	<.1	23	10	717	1.69	3	<5	<2	9	41	<.2	<2	9	25	.32	.070	37	26	1.72	122	.16	<2	1.44	.03	1.23	3	<5	1	2	
9720	1	8	5	52	.2	14	7	469	1.19	<2	<5	<2	7	21	<.2	<2	5	18	.21	.057	39	17	1.14	122	.11	<2	.98	.03	.82	1	<5	1	4	
9721	1	10	3	32	<.1	9	3	314	.69	<2	<5	<2	7	11	<.2	<2	<2	7	.09	.028	32	12	.56	89	.06	<2	.59	.05	.49	2	<5	<1	2	
9722	1	5	4	33	.1	7	5	337	.75	<2	<5	<2	9	12	<.2	<2	<2	9	.12	.035	30	10	.58	80	.06	<2	.60	.04	.46	1	<5	<1	6	
RE 9722	<1	6	5	35	<.1	8	5	350	.77	<2	<5	<2	9	13	<.2	<2	3	10	.13	.037	32	11	.59	78	.06	<2	.62	.04	.48	1	<5	1	11	
9723	3	12	<2	122	.3	27	11	615	1.89	<2	<5	<2	4	25	<.2	2	3	33	.30	.081	35	27	1.64	180	.16	2	1.33	.07	.98	2	<5	1	<1	
9724	<1	9	<2	87	.1	18	12	731	1.63	<2	<5	<2	5	25	<.2	<2	<2	35	.29	.075	37	19	1.77	147	.17	<2	1.37	.04	1.01	<1	<5	1	4	
9725	1	13	<2	74	.3	20	12	759	1.68	<2	<5	<2	7	20	.4	2	3	31	.20	.045	47	19	1.43	134	.15	3	1.21	.04	.87	2	<5	1	<1	
9726	1	25	<2	46	.1	13	7	495	1.02	<2	<5	<2	6	16	<.2	<2	<2	14	.07	.003	42	13	.72	133	.08	<2	.82	.03	.44	2	<5	1	3	
9727	1	52	<2	32	.3	9	6	224	.81	<2	<5	<2	7	11	<.2	<2	<2	10	.05	.008	26	15	.54	77	.07	<2	.79	.01	.41	2	<5	1	7	
9728	1	91	<2	29	<.1	14	4	221	1.01	<2	<5	<2	4	9	<.2	<2	<2	10	.03	.004	15	30	.59	118	.09	<2	.94	<.01	.49	2	<5	<1	2	
9729	2	20	5	57	.4	21	10	878	1.61	3	<5	<2	4	22	.3	3	<2	22	.13	.010	18	25	1.11	172	.12	<2	1.30	.02	.60	2	<5	<1	<1	
9730	1	6	3	5	<.1	7	2	48	.54	<2	<5	<2	8	6	<.2	<2	<2	3	.01	.008	34	12	.06	57	.02	<2	.22	.03	.17	<1	<5	<1	2	
9731	1	5	<2	12	<.1	4	4	110	.95	<2	<5	<2	12	7	<.2	<2	8	5	.07	.029	47	19	.12	188	.04	4	.40	.03	.30	1	<5	<1	3	#2
9732	1	4	2	20	<.1	14	5	188	.81	<2	<5	<2	14	8	<.2	<2	8	6	.07	.028	52	25	.25	90	.04	3	.53	.01	.40	2	<5	<1	5	
9733	1	9	<2	19	<.1	14	6	202	.84	3	<5	<2	16	9	<.2	2	7	7	.08	.031	47	16	.21	78	.04	5	.48	.02	.36	1	<5	<1	<1	
9734	1	6	2	8	<.1	6	2	113	.36	<2	<5	<2	11	13	<.2	<2	3	3	.11	.024	41	16	.06	51	.01	<2	.42	.02	.29	2	<5	<1	<1	
9735	2	3	6	9	<.1	5	3	178	.49	<2	<5	<2	14	15	<.2	2	<2	4	.12	.026	36	16	.14	61	.03	<2	.41	.04	.26	1	<5	<1	11	
STANDARD C/AU-R	20	56	36	126	6.9	72	31	1060	3.96	42	21	7	39	[illegible]	18.8	15	20	62	.50	.094	40	62	.94	183	.08	33	1.88	.06	.16	13	<5	3	495	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 TO P6 ROCK CHIP P7 TO P8 SOIL AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 29 1994 **DATE REPORT MAILED:** Sept 8/94 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb
9736	1	7	4	23	<.1	6	3	341	.66	<2	<5	<2	14	13	<.2	2	3	7	.12	.026	39	12	.33	65	.05	<2	.45	.04	.29	1	<5	<1	<1
9737	1	9	5	27	<.1	5	3	340	.86	<2	<5	<2	11	9	<.2	<2	3	8	.10	.029	26	12	.37	74	.05	<2	.49	.07	.34	4	<5	<1	2
9738	2	5	6	24	<.1	7	3	277	.81	<2	<5	<2	16	9	<.2	<2	3	7	.07	.022	37	12	.35	125	.05	<2	.44	.05	.33	1	<5	<1	<1
9739	1	5	3	22	.1	5	3	219	.71	2	<5	<2	13	9	<.2	<2	4	7	.10	.035	35	10	.45	76	.05	<2	.50	.04	.38	1	<5	<1	<1
9740	<1	9	<2	139	<.1	92	28	1222	2.50	2	<5	<2	9	6	<.2	<2	4	35	.11	.042	42	84	4.42	139	.25	3	2.70	.03	3.46	<1	<5	<1	4
9741	3	6	7	11	<.1	11	2	122	.86	2	<5	<2	9	8	<.2	<2	3	6	.04	.014	17	19	.24	90	.03	<2	.38	.07	.26	2	<5	<1	2
9742	<1	9	5	136	<.1	99	27	1307	2.17	<2	<5	<2	9	7	<.2	<2	4	25	.11	.036	29	111	4.07	123	.23	2	2.42	.02	3.09	<1	5	1	<1
RE 9742	<1	9	<2	136	<.1	100	27	1308	2.18	<2	<5	<2	8	7	<.2	<2	4	25	.11	.037	31	114	4.07	123	.23	2	2.41	.03	3.10	<1	<5	<1	2
9743	1	7	4	13	<.1	7	3	137	.63	<2	<5	<2	15	13	<.2	2	3	4	.04	.012	33	16	.28	102	.03	2	.33	.04	.24	3	<5	<1	1
9744	2	6	<2	22	<.1	13	6	235	.84	<2	<5	<2	15	9	<.2	<2	4	7	.08	.027	27	13	.45	90	.05	2	.49	.04	.39	1	<5	<1	4
9745	1	8	<2	67	.1	76	21	716	1.64	<2	<5	<2	12	9	<.2	<2	5	17	.13	.042	24	71	1.83	123	.13	2	1.24	.03	1.38	2	<5	<1	4
9746	1	6	<2	17	<.1	18	7	166	.93	<2	<5	<2	12	5	<.2	2	3	6	.04	.016	36	21	.31	54	.05	3	.51	.02	.45	2	<5	<1	<1
9747	2	6	<2	6	<.1	9	3	65	.85	<2	<5	<2	15	7	<.2	<2	4	8	.03	.014	47	22	.08	58	.03	4	.37	.02	.30	1	<5	<1	<1
9748	1	7	6	27	<.1	16	6	165	.98	<2	<5	<2	18	6	<.2	<2	4	9	.06	.023	44	21	.31	51	.05	2	.51	.02	.47	2	<5	<1	1
9749	1	9	<2	23	.2	23	6	262	.87	<2	<5	<2	10	6	<.2	<2	2	7	.05	.015	34	27	.48	48	.06	<2	.52	.05	.46	2	<5	<1	<1
9750	1	5	<2	13	.2	11	3	136	.58	<2	<5	<2	11	3	<.2	<2	2	4	.03	.012	35	12	.29	29	.04	<2	.34	.04	.27	1	<5	<1	<1
9754	1	1	<2	8	.1	4	3	142	.43	<2	<5	<2	12	4	<.2	2	3	4	.01	.005	30	7	.31	53	.03	<2	.31	.03	.24	1	<5	<1	3
9755	<1	6	4	7	.2	3	2	186	.50	2	<5	<2	14	4	<.2	<2	2	4	.02	.007	41	11	.27	33	.03	<2	.32	.03	.27	1	<5	<1	3
9756	2	7	4	10	.2	8	3	281	.63	<2	<5	<2	12	5	<.2	<2	2	5	.03	.009	29	19	.43	41	.05	<2	.45	.04	.40	1	<5	<1	<1
9757	1	10	2	18	<.1	5	1	268	.61	<2	<5	<2	16	5	<.2	3	4	7	.04	.012	45	12	.45	49	.06	<2	.46	.03	.40	<1	<5	<1	<1
9758	1	11	4	44	.5	11	9	518	1.57	3	<5	<2	12	15	<.2	<2	2	26	.23	.055	34	18	1.50	114	.13	2	1.03	.05	.96	2	<5	<1	3
9759	1	12	5	75	.1	13	8	491	2.39	<2	<5	<2	18	22	<.2	<2	7	38	.16	.038	36	25	1.61	147	.19	2	1.39	.04	1.53	1	8	<1	<1
9760	1	47	6	62	.2	7	7	363	1.85	<2	<5	<2	16	11	<.2	<2	5	25	.13	.043	20	13	.82	153	.16	2	1.11	.04	1.26	<1	<5	<1	<1
9761	<1	17	<2	230	<.1	294	50	1812	6.16	<2	<5	<2	6	32	<.2	<2	2	114	.36	.053	13	801	7.99	325	.25	<2	6.70	.05	5.01	<1	7	1	1
9762	2	70	2	54	.4	11	8	556	2.27	<2	<5	<2	11	28	<.2	2	4	28	.22	.061	59	17	.94	193	.19	2	1.36	.04	1.45	<1	<5	<1	<1
9763	1	67	6	81	.2	7	7	560	1.90	<2	<5	<2	13	16	<.2	3	4	20	.15	.059	25	11	.72	162	.14	3	1.10	.04	1.20	<1	<5	<1	<1
9764	1	59	5	89	.3	9	6	661	1.74	<2	<5	<2	9	12	<.2	<2	4	22	.23	.086	29	13	.94	114	.16	<2	1.17	.04	1.34	<1	<5	<1	1
9765	1	26	<2	19	.1	5	2	136	.46	<2	<5	<2	6	14	<.2	2	<2	6	.07	.023	18	10	.18	49	.03	<2	.31	.05	.19	1	<5	<1	<1
9766	1	40	2	97	.1	7	5	707	1.58	<2	<5	<2	11	12	<.2	2	2	19	.16	.052	64	11	.88	87	.15	<2	1.07	.03	1.19	<1	<5	<1	<1
9767	2	30	2	82	.1	11	5	636	1.43	<2	<5	<2	14	11	<.2	2	3	14	.13	.043	23	21	.87	91	.13	<2	1.05	.04	1.18	1	<5	<1	3
9768	1	47	6	97	<.1	15	9	843	2.30	<2	<5	<2	10	14	<.2	<2	5	30	.21	.069	34	18	1.86	156	.19	2	1.57	.04	1.69	<1	7	<1	<1
9769	1	61	5	98	.1	9	9	866	2.27	<2	<5	<2	10	15	<.2	<2	3	29	.18	.061	31	18	1.92	210	.18	2	1.61	.04	1.81	<1	<5	<1	7
9770	2	8	8	64	<.1	11	5	302	1.50	<2	<5	<2	17	25	<.2	<2	4	19	.29	.046	42	16	.61	100	.11	2	.95	.05	.73	<1	<5	<1	3
9771	1	9	3	86	<.1	14	6	365	1.67	<2	<5	<2	17	20	<.2	<2	5	21	.17	.042	40	53	.81	100	.12	<2	.94	.03	.90	<1	<5	<1	<1
9772	1	10	<2	59	<.1	8	6	337	1.64	<2	<5	<2	16	15	<.2	<2	4	21	.17	.049	34	13	.87	87	.13	<2	1.01	.03	1.00	1	<5	<1	<1
STANDARD C/AU-R	20	58	37	124	6.9	72	32	1039	3.96	41	16	8	37	52	18.7	14	21	61	.51	.091	40	58	.91	182	.08	34	1.88	.06	.16	11	<5	2	477

Sample type: ROCK CHIP. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb	
9773	2	10	11	38	<.1	12	4	422	1.02	<2	<5	<2	5	11	<.2	<2	<2	15	.13	.048	28	17	.50	115	.09	<2	.72	.07	.62	<1	<5	<1	5	#15
9774	1	12	6	38	<.1	10	4	452	1.02	<2	<5	<2	8	12	<.2	3	<2	17	.12	.043	33	16	.49	102	.08	<2	.72	.06	.58	<1	<5	<1	4	
9775	2	12	11	90	<.1	23	12	964	2.19	<2	<5	<2	4	25	<.2	<2	<2	51	.32	.107	41	29	2.22	215	.18	<2	1.72	.05	1.79	<1	<5	<1	<1	
9776	2	14	6	110	.1	21	9	634	1.88	<2	<5	<2	5	23	<.2	<2	<2	36	.28	.069	32	25	1.80	160	.15	3	1.40	.05	1.30	3	<5	<1	11	
9777	1	12	8	81	.1	18	10	552	1.98	<2	<5	<2	5	20	<.2	2	<2	34	.24	.075	31	20	1.86	153	.17	<2	1.54	.04	1.53	<1	<5	<1	6	
9778	3	18	8	98	<.1	26	10	657	2.33	<2	<5	<2	7	22	<.2	2	3	34	.24	.072	43	22	1.83	159	.18	<2	1.63	.04	1.56	<1	<5	<1	1	
9779	2	10	11	113	<.1	17	9	591	2.32	<2	<5	<2	8	20	<.2	2	4	31	.22	.070	39	19	1.88	161	.18	<2	1.60	.04	1.64	<1	<5	<1	2	
9780	1	13	12	116	<.1	18	12	754	2.74	<2	<5	<2	6	21	<.2	3	2	33	.32	.112	45	22	2.06	184	.22	<2	1.81	.04	2.01	<1	<5	<1	6	
« 9873	3	278	13	251	.4	14	9	1031	2.47	<2	<5	<2	11	31	<.2	<2	3	41	1	.064	41	21	1.23	266	.21	2	1.58	.04	1.72	<1	<5	<1	1	
9874	2	80	11	68	.3	8	7	805	1.65	<2	<5	<2	10	39	.2	2	6	24	.3	.059	44	12	.82	128	.15	2	1.12	.04	1.11	<1	<5	<1	<1	#4
9875	1	7	8	51	.1	29	12	498	1.58	<2	<5	<2	1	[illegible]	<.2	<2	2	25	.14	.050	34	28	.84	106	.14	3	1.05	.04	1.09	2	<5	<1	<1	
9876	2	9	7	33	.3	13	7	379	.90	<2	<5	<2	7	38	<.2	2	<2	11	.28	.047	29	11	.42	103	.07	4	.92	.04	.64	<1	<5	<1	10	
RE 9876	2	7	10	35	.4	13	7	399	.94	<2	<5	<2	7	28	<.2	<2	<2	11	.29	.049	30	11	.45	107	.07	3	.96	.04	.67	<1	<5	<1	6	
9877	1	10	5	19	<.1	10	5	186	.93	<2	<5	<2	13	7	<.2	2	2	13	.08	.030	40	19	.25	61	.06	3	.60	.03	.50	1	<5	<1	4	
9878	2	5	6	18	<.1	16	6	113	1.20	<2	<5	<2	19	6	<.2	3	4	10	.05	.020	56	23	.15	47	.06	3	.50	.03	.39	<1	<5	<1	1	
9879	2	7	4	15	.2	16	5	98	1.35	<2	<5	<2	16	8	<.2	<2	2	10	.06	.024	51	32	.12	53	.06	3	.49	.03	.38	1	<5	<1	4	#4
9880	2	10	5	7	.1	10	2	129	.81	<2	<5	<2	43	21	<.2	2	4	10	.09	.028	65	25	.06	84	.03	3	.42	.02	.31	1	<5	<1	3	
9881	1	42	3	29	<.1	9	4	324	.78	<2	<5	<2	7	71	<.2	2	<2	10	.53	.034	23	18	.40	61	.07	2	.82	.05	.38	<1	<5	<1	3	
9882	2	23	8	70	.1	21	9	720	1.76	<2	<5	<2	6	102	<.2	2	<2	30	.79	.081	39	22	1.52	142	.15	2	1.60	.05	1.39	<1	<5	<1	10	#5
9883	2	24	11	34	<.1	10	3	344	.86	<2	<5	<2	10	65	<.2	2	<2	9	.41	.033	36	17	.49	67	.07	2	.81	.05	.52	<1	<5	<1	5	
9884	1	12	6	112	<.1	22	12	836	2.09	<2	<5	<2	2	57	<.2	<2	<2	41	.64	.103	24	24	2.70	253	.19	<2	1.99	.04	2.21	<1	<5	<1	<1	
9885	2	8	9	101	<.1	25	12	799	2.15	3	<5	<2	3	63	<.2	<2	<2	45	.41	.107	30	25	2.50	282	.20	2	1.93	.05	2.30	<1	<5	<1	4	
9886	2	12	8	109	.1	22	12	823	2.00	4	[illegible]	<2	5	51	<.2	<2	<2	41	.44	.098	31	30	2.52	261	.18	<2	1.84	.05	2.01	<1	<5	<1	<1	
9887	1	14	9	97	<.1	20	11	830	1.75	<2	<5	<2	4	44	<.2	<2	<2	34	.42	.100	28	20	2.21	185	.17	<2	1.70	.05	1.92	<1	<5	1	3	
9888	3	12	7	96	<.1	31	14	978	2.30	5	<5	<2	5	182	.2	<2	<2	51	.86	.095	41	34	2.74	433	.19	<2	2.59	.07	2.24	<1	<5	1	3	
9889	1	9	5	197	<.1	188	42	1569	4.07	<2	<5	<2	3	170	<.2	<2	<2	69	.76	.052	10	43	6.70	460	.28	<2	6.03	.04	3.88	<1	7	3	1	
9890	3	164	10	17	<.1	13	3	184	.69	<2	<5	<2	5	90	<.2	<2	<2	9	.57	.023	19	25	.25	98	.05	2	.86	.04	.32	2	<5	<1	5	
9891	2	10	7	51	<.1	22	10	879	2.18	4	<5	<2	6	192	.2	<2	<2	43	1.72	.093	18	28	1.69	72	.16	<2	2.14	.06	1.35	<1	<5	1	1	
9892	1	7	7	41	.2	16	7	1302	1.65	<2	<5	<2	8	486	<.2	<2	<2	29	3.88	.064	20	19	1.62	66	.12	<2	3.22	.06	.89	<1	<5	1	3	#6
9893	1	11	12	43	.2	18	8	762	2.26	<2	<5	<2	5	158	.2	<2	<2	39	1.69	.080	17	23	1.48	67	.14	<2	2.13	.05	1.17	1	<5	<1	3	
9894	3	10	6	25	.1	14	5	503	1.94	<2	<5	<2	<2	81	<.2	<2	2	22	2.35	.044	9	22	.60	46	.12	<2	1.41	.04	.44	<1	<5	<1	<1	
9895	1	14	6	52	<.1	18	9	527	3.83	<2	<5	<2	7	113	.3	<2	<2	46	.61	.098	19	19	1.36	79	.17	<2	1.49	.05	1.22	<1	<5	1	<1	
9896	1	8	6	46	.1	12	6	571	2.23	2	<5	<2	9	83	<.2	<2	<2	35	.74	.075	11	19	1.12	59	.16	2	1.07	.06	.91	<1	<5	<1	3	
9897	3	9	3	69	.1	19	10	755	2.26	2	<5	<2	9	127	<.2	<2	2	31	.72	.099	10	21	1.45	81	.20	<2	1.51	.06	1.47	<1	<5	<1	<1	
9898	1	7	11	57	.1	14	8	701	1.96	3	<5	<2	7	64	<.2	<2	<2	32	1.91	.104	13	17	1.32	53	.17	<2	1.12	.04	.96	<1	<5	<1	<1	
STANDARD C/AU-R	19	56	42	128	6.8	73	31	1031	3.96	43	23	6	38	53	16.7	14	20	62	.51	.092	40	61	.91	183	.08	33	1.88	.06	.16	10	<5	1	488	

Sample type: ROCK CHIP. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2653

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
9859	2	9	7	4	.2	5	2	37	.66	3	<5	<2	9	5	<.2	2	<2	3	.01	.004	34	19	.03	69	.02	2	.21	.04	.18	4	50
9860	2	10	3	8	.1	9	3	82	.92	<2	<5	<2	11	5	.2	2	<2	6	.03	.011	41	14	.07	103	.03	2	.33	.06	.23	2	16
9861	1	8	4	15	.1	11	4	177	1.01	<2	6	<2	14	10	<.2	3	3	4	.07	.026	45	19	.17	101	.03	3	.40	.02	.31	4	21
9862	1	8	2	21	<.1	14	5	270	.81	<2	<5	<2	14	8	<.2	2	4	6	.06	.021	45	15	.26	120	.04	3	.42	.02	.35	2	10
RE 9862	1	8	2	21	.1	15	5	262	.78	<2	5	<2	14	7	<.2	2	<2	6	.06	.021	44	15	.26	116	.04	3	.41	.02	.34	2	2
9863	2	14	4	29	<.1	21	7	361	1.47	<2	6	<2	19	7	<.2	2	4	14	.06	.024	56	23	.42	106	.07	4	.92	.05	.71	5	23
9864	2	20	3	30	.1	22	7	441	1.61	<2	9	<2	18	8	<.2	2	6	13	.07	.024	57	26	.42	110	.07	4	.75	.03	.56	3	14
9865	3	24	3	32	.1	25	9	402	1.72	<2	<5	<2	15	9	<.2	<2	<2	16	.09	.027	46	23	.56	101	.09	4	.90	.09	.71	2	72
9866	3	16	4	31	.2	25	8	389	2.01	2	7	<2	15	15	<.2	3	4	16	.05	.017	53	30	.51	119	.08	4	.83	.06	.66	5	18
9867	1	15	3	28	.1	21	9	406	1.48	<2	<5	<2	13	7	<.2	2	4	13	.08	.026	41	14	.52	67	.08	3	.66	.04	.53	2	9
9868	2	11	4	5	<.1	8	1	50	.81	<2	<5	<2	9	7	<.2	<2	<2	6	.01	.006	39	19	.04	109	.03	4	.29	.03	.23	1	8
9869	2	11	4	11	<.1	7	1	110	.70	<2	<5	<2	11	7	<.2	<2	2	4	.03	.011	36	12	.21	68	.04	2	.39	.07	.31	3	14
9870	1	10	5	8	.1	6	1	66	.76	<2	<5	<2	15	7	<.2	3	2	5	.03	.010	40	10	.11	58	.04	2	.33	.05	.26	1	<1
9871	2	70	5	90	.2	41	13	1018	2.70	<2	<5	<2	9	36	.2	<2	2	49	.36	.064	32	66	1.88	289	.22	2	2.15	.05	1.66	2	10
9872	1	46	7	104	.3	28	10	941	2.51	2	<5	<2	10	86	.3	3	4	47	.42	.067	42	46	1.40	273	.22	2	1.85	.05	1.40	2	7
STANDARD C/AU-R	19	57	38	128	6.9	73	31	1067	3.96	42	17	7	37	51	17.4	14	22	60	.49	.093	39	55	.93	188	.08	33	1.88	.06	.15	12	471

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK CHIP AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 15 1994 **DATE REPORT MAILED:** Aug 19/94 **SIGNED BY.** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb	
9899	2	3	<2	74	<.1	14	8	638	2.39	<2	<5	<2	8	27	.2	<2	<2	36	1.28	.091	11	20	1.29	47	.18	<2	1.01	.05	.79	<1	<5	1	33	
9900	1	4	2	56	<.1	18	10	716	1.95	3	<5	<2	5	36	.4	<2	<2	31	1.54	.093	12	24	1.60	59	.16	4	1.20	.05	1.04	<1	<5	<1	59	
9901	1	155	<2	84	.6	23	13	720	2.30	3	<5	<2	7	59	.4	3	4	40	.77	.084	23	40	1.87	165	.20	3	1.74	.04	1.38	<1	<5	1	<1	
9902	3	5	3	68	.1	20	11	1219	2.00	2	<5	<2	2	113	.5	<2	<2	30	2.16	.074	8	26	2.00	89	.17	7	1.68	.04	.83	<1	<5	2	4	#6
9903	1	2	5	68	<.1	19	11	718	2.05	<2	<5	<2	5	89	.4	<2	4	35	.69	.097	20	23	1.77	90	.18	4	1.61	.05	1.21	<1	<5	1	12	
9904	2	13	2	51	.1	29	8	425	1.28	5	<5	<2	4	41	<.2	2	<2	15	.34	.053	18	31	1.42	108	.10	3	1.12	.03	.91	<1	<5	<1	2	
9905	2	3	4	17	<.1	10	4	262	.68	6	6	<2	9	18	<.2	3	<2	8	.20	.040	19	15	.77	62	.06	<2	.64	.03	.52	<1	<5	1	<1	
9906	2	35	3	23	.1	21	6	254	.96	6	<5	<2	8	25	<.2	2	4	9	.23	.034	24	18	.93	77	.07	2	.86	.07	.56	3	<5	1	9	
9907	2	3	3	21	.2	9	2	159	.55	<2	<5	<2	7	12	<.2	2	<2	4	.07	.022	40	17	.37	87	.04	2	.43	.04	.35	2	<5	<1	<1	
9908	2	5	<2	95	.1	26	14	717	1.81	<2	<5	<2	4	16	.6	<2	2	23	.27	.077	18	26	2.65	168	.18	7	1.94	.02	1.67	<1	<5	<1	1	#7
9909	1	8	2	79	.3	28	14	677	1.88	<2	<5	<2	5	19	.4	<2	<2	26	.28	.081	13	34	2.56	197	.18	3	1.94	.02	1.67	<1	<5	<1	3	
9910	2	7	<2	33	.3	9	7	258	.99	2	<5	<2	7	20	<.2	4	<2	10	.18	.047	26	20	.83	146	.07	4	.79	.04	.62	1	<5	1	7	
9911	2	5	4	15	.2	10	3	107	.56	2	<5	<2	7	19	<.2	2	<2	4	.05	.007	25	12	.31	109	.03	2	.37	.04	.26	<1	<5	<1	9	
9912	1	7	<2	53	.4	17	10	465	1.29	<2	<5	<2	5	18	.5	<2	<2	16	.21	.052	17	20	1.55	204	.12	<2	1.18	.02	.96	<1	<5	<1	7	
9913	1	7	2	90	.3	32	12	571	1.47	<2	<5	<2	5	19	<.2	<2	<2	17	.18	.044	29	58	1.70	178	.13	<2	1.35	.03	1.20	<1	<5	<1	1	
9914	2	8	3	9	.5	9	3	93	.44	<2	<5	<2	5	24	<.2	3	<2	4	.21	.029	14	14	.18	151	.02	<2	.40	.04	.18	<1	<5	<1	3	
9915	2	9	<2	54	.5	17	11	447	1.56	5	<5	<2	9	108	<.2	<2	4	26	.79	.061	31	24	1.32	935	.13	2	1.84	.04	.84	1	<5	<1	<1	
9916	1	5	<2	92	<.1	14	9	926	2.12	<2	<5	<2	8	37	.6	<2	2	34	.29	.063	38	20	1.24	166	.19	4	1.35	.04	1.09	<1	<5	<1	1	
9917	3	16	<2	75	<.1	16	9	858	2.18	<2	<5	<2	9	31	<.2	<2	<2	43	.30	.059	40	21	1.27	192	.20	<2	1.41	.05	1.18	<1	<5	1	5	#12
9918	1	26	<2	100	.1	25	14	1285	3.31	<2	<5	<2	7	19	<.2	<2	<2	83	.28	.080	33	36	2.34	330	.28	<2	2.31	.03	2.11	<1	<5	<1	<1	
9919	1	3	<2	125	<.1	26	11	719	2.12	<2	<5	<2	11	24	<.2	<2	8	35	.23	.050	38	35	1.14	234	.17	<2	1.29	.03	1.04	<1	<5	<1	<1	
9920	5	12	2	13	.1	20	3	164	.85	<2	<5	<2	4	5	.3	2	<2	11	.03	.008	18	37	.19	74	.04	<2	.37	.01	.31	<1	<5	1	<1	
9921	2	12	<2	29	<.1	21	9	337	1.22	<2	<5	<2	14	8	<.2	<2	4	14	.09	.025	46	23	.42	98	.07	2	.62	.03	.46	2	<5	<1	5	
RE 9921	1	12	3	29	.1	23	9	350	1.25	3	<5	<2	14	8	<.2	<2	3	14	.09	.024	47	22	.43	99	.07	4	.63	.02	.47	1	<5	<1	5	
9922	2	4	7	40	<.1	24	9	345	1.31	5	6	<2	25	9	.3	2	5	15	.07	.024	110	23	.51	78	.08	2	.65	.03	.51	2	<5	1	<1	
9923	2	2	4	31	<.1	26	9	344	1.58	<2	5	<2	22	13	<.2	2	3	31	.07	.016	61	28	.42	107	.10	2	.67	.03	.55	<1	<5	<1	<1	
9924	<1	6	4	140	.1	56	35	1539	4.86	<2	<5	<2	7	54	.8	<2	<2	90	.69	.202	33	23	2.42	513	.42	5	2.65	.03	2.24	<1	<5	<1	<1	
9925	2	4	<2	11	.2	7	3	143	.56	2	<5	<2	<2	14	<.2	2	<2	10	.11	.006	4	42	.15	86	.02	<2	.30	.01	.12	2	<5	1	6	
9926	3	6	<2	48	<.1	17	9	644	2.17	4	<5	<2	9	45	.5	<2	<2	47	.25	.049	27	26	.89	208	.18	<2	1.13	.05	.85	<1	<5	<1	5	
9927	1	5	4	64	<.1	15	14	818	2.52	<2	<5	<2	9	55	.9	<2	4	59	.39	.090	36	17	1.19	303	.24	<2	1.55	.05	1.20	<1	<5	<1	1	
9928	2	5	<2	15	.1	4	3	215	.79	3	<5	<2	5	133	<.2	4	<2	23	.32	.016	15	16	.21	400	.05	<2	.64	.05	.19	2	<5	1	2	
9929	2	5	2	60	.1	17	9	691	1.95	3	<5	<2	6	72	.3	3	<2	50	.36	.076	39	26	1.21	260	.18	<2	1.34	.05	1.11	<1	<5	1	<1	
9930	1	7	<2	55	<.1	11	9	676	2.17	<2	<5	<2	12	16	<.2	<2	7	47	.19	.051	32	16	1.10	371	.17	3	1.23	.04	1.06	2	<5	<1	2	
9931	1	8	<2	50	<.1	11	10	655	2.07	<2	<5	<2	10	31	<.2	<2	3	38	.24	.050	27	14	1.12	764	.17	<2	1.27	.03	1.04	<1	<5	<1	4	
9932	2	5	<2	37	<.1	11	7	651	1.60	2	<5	<2	10	18	<.2	2	<2	20	.23	.054	35	12	.96	491	.14	4	1.05	.04	.86	1	<5	<1	2	12
STANDARD C/AU-R	19	58	39	124	7.0	69	31	1048	3.96	37	21	7	37	51	18.4	14	17	61	.52	.091	40	61	.92	184	.08	32	1.88	.07	.16	10	<5	1	478	

Sample type: ROCK CHIP. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb
9933	1	10	7	35	.3	10	11	458	1.38	2	<5	<2	9	29	.2	<2	2	16	.17	.039	22	11	.92	2012	.10	<2	.96	.04	.85	2	<5	<1	4
9934	1	5	3	16	<.1	19	7	135	.96	2	<5	<2	11	17	<.2	<2	3	9	.13	.013	37	18	.32	184	.05	2	.60	.02	.36	2	<5	<1	<1
9935	2	4	<2	12	<.1	16	5	86	.80	2	<5	<2	12	7	<.2	<2	3	7	.03	.012	39	24	.19	64	.03	3	.38	.02	.26	<1	<5	<1	4
9936	2	6	4	27	<.1	24	7	185	1.05	<2	<5	<2	12	7	<.2	<2	3	10	.04	.014	46	24	.47	94	.06	2	.57	.02	.44	2	<5	<1	4
9937	3	4	5	9	.3	15	3	57	.57	2	<5	<2	6	5	.2	<2	<2	3	.02	.005	20	38	.09	39	.01	2	.15	.01	.08	3	<5	<1	<1
9938	3	5	5	19	<.1	26	7	158	1.09	<2	<5	<2	12	15	<.2	<2	3	9	.13	.022	48	29	.35	134	.05	2	.61	.03	.40	1	<5	<1	4
9939	2	14	6	16	.1	18	5	138	.88	<2	<5	<2	11	9	<.2	<2	4	7	.04	.012	38	24	.26	72	.04	2	.41	.02	.27	2	<5	<1	<1
9940	2	3	4	11	<.1	16	4	122	.89	<2	<5	<2	14	11	.2	<2	3	8	.10	.017	50	21	.18	66	.04	3	.42	.02	.24	2	<5	<1	<1
9941	2	5	8	372	.1	18	6	186	1.16	<2	<5	<2	11	26	.3	<2	2	9	.20	.012	38	22	.30	124	.05	<2	.62	.02	.29	1	<5	<1	6
9942	2	115	8	43	.6	14	7	452	1.86	<2	<5	<2	20	14	<.2	<2	5	25	.16	.051	33	17	.81	118	.15	2	1.18	.04	1.20	2	<5	<1	1
9943	1	22	7	21	.2	8	2	154	.73	<2	<5	<2	17	8	<.2	<2	4	6	.05	.017	50	20	.38	42	.06	<2	.52	.04	.42	2	<5	<1	1
9944	3	15	7	12	.1	10	2	82	.60	<2	<5	<2	17	10	.2	<2	3	4	.04	.010	38	14	.19	40	.03	<2	.35	.04	.20	1	<5	<1	76
RE 9945	2	12	<2	24	.2	8	2	107	.60	<2	<5	<2	12	10	.2	2	2	5	.05	.014	38	14	.24	46	.04	<2	.39	.04	.24	2	<5	<1	2
9946	1	9	5	17	.1	5	2	158	.77	<2	<5	<2	16	12	.2	<2	4	5	.06	.014	48	11	.29	45	.06	<2	.49	.03	.36	2	<5	<1	1
9947	3	22	19	16	1.5	11	2	191	.89	<2	<5	<2	19	32	.3	<2	17	8	.14	.018	46	15	.19	87	.08	2	.47	.02	.30	<1	<5	<1	205
9948	2	12	6	54	.2	13	8	506	2.10	<2	<5	<2	15	15	.2	<2	5	26	.15	.046	37	18	1.57	131	.17	<2	1.37	.04	1.52	2	<5	<1	8
9949	1	9	4	96	.2	19	14	880	3.06	<2	<5	<2	10	18	<.2	<2	6	59	.21	.063	36	36	2.69	249	.22	2	2.14	.04	2.62	4	<5	<1	<1
9950	3	9	8	92	<.1	14	8	538	2.19	2	<5	<2	16	23	<.2	<2	6	27	.18	.049	41	16	.89	179	.19	2	1.25	.05	1.34	<1	<5	<1	9
9951	2	22	10	61	<.1	9	7	523	1.90	<2	<5	<2	18	24	<.2	<2	6	23	.16	.039	41	15	.76	139	.16	<2	1.06	.04	1.08	3	<5	<1	<1
9952	1	23	6	57	<.1	9	6	547	1.85	<2	<5	<2	13	23	<.2	<2	5	24	.21	.062	39	11	.70	149	.16	<2	1.04	.04	1.01	2	<5	<1	2
9953	3	28	5	69	.1	12	7	555	1.84	<2	<5	<2	11	19	.2	<2	3	24	.17	.048	29	15	.79	144	.16	<2	1.13	.05	1.18	3	<5	<1	5
9954	1	1214	5	76	1.9	13	7	600	1.87	<2	<5	<2	9	17	<.2	<2	8	25	.18	.055	47	19	1.34	132	.16	2	1.24	.04	1.28	1	<5	<1	24
9955	1	51	8	88	<.1	33	9	788	2.47	<2	<5	<2	7	21	<.2	<2	5	34	.23	.065	38	54	1.73	153	.20	<2	1.56	.04	1.70	1	<5	<1	5
9956	3	34	6	67	<.1	22	7	653	2.48	<2	<5	<2	9	37	<.2	<2	4	33	.25	.063	40	29	1.53	187	.21	<2	1.51	.05	1.62	<1	<5	<1	<1
9957	2	467	8	114	1.6	41	14	797	2.92	<2	<5	<2	9	79	.2	<2	6	53	.33	.075	42	76	2.63	317	.20	<2	2.25	.04	2.28	2	5	<1	5
9958	1	21	6	64	.7	24	8	497	2.06	<2	<5	<2	13	25	.3	<2	4	33	.25	.052	47	55	.95	149	.17	<2	1.26	.04	1.21	2	<5	<1	<1
9959	3	18	6	44	.1	17	7	374	2.12	<2	<5	<2	13	23	<.2	<2	4	34	.22	.045	40	19	.75	134	.17	<2	1.10	.06	.92	<1	<5	<1	3
9960	3	145	7	68	1.6	14	7	438	2.17	<2	<5	<2	15	38	<.2	<2	6	28	.13	.050	37	22	.45	135	.14	2	1.03	.04	.96	1	<5	<1	5
9961	1	122	7	136	.5	14	12	962	2.48	<2	<5	<2	11	36	.2	<2	5	38	.28	.058	28	22	.81	146	.19	2	1.31	.04	1.25	<1	<5	<1	3
9962	3	100	7	99	.1	13	6	878	2.08	<2	<5	<2	18	30	<.2	2	5	33	.23	.050	41	20	.68	116	.19	2	1.05	.05	.95	<1	7	<1	3
9963	1	60	7	103	.1	13	6	856	1.89	<2	<5	<2	12	56	.3	<2	4	28	.69	.053	45	28	.69	84	.16	2	1.52	.03	.58	1	<5	<1	3
9964	1	19	5	90	<.1	11	6	750	1.96	<2	<5	<2	10	37	.2	<2	3	35	.25	.052	35	22	.81	112	.17	2	1.05	.04	.86	1	<5	<1	2
9965	2	77	5	85	<.1	21	11	981	2.27	<2	<5	<2	10	27	.2	<2	5	38	.24	.047	35	23	2.50	178	.16	3	1.70	.04	1.85	<1	<5	<1	<1
9966	1	56	<2	54	<.1	7	5	554	1.35	<2	<5	<2	10	20	.2	3	2	16	.18	.043	43	14	.90	137	.13	<2	1.02	.04	.95	1	<5	<1	2
STANDARD C/AU-R	20	57	43	125	6.7	73	33	1046	3.96	43	16	8	37	53	16.7	14	23	62	.49	.091	40	59	.93	183	.08	33	1.88	.07	.17	11	<5	2	494

Sample type: ROCK CHIP. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb
9967	1	6	2	58	<.1	4	8	649	1.51	<2	<5	<2	14	21	<.2	2	<2	18	.22	.041	43	8	1.07	121	.15	3	1.10	.04	.88	1	<5	<1	<1
9968	2	15	2	69	<.1	9	9	679	1.77	<2	<5	<2	13	24	<.2	<2	6	22	.30	.046	38	11	1.17	100	.15	3	1.17	.04	.73	1	<5	<1	3
9969	1	5	5	58	<.1	15	9	511	1.73	4	<5	<2	14	17	.2	7	4	24	.19	.052	30	21	1.03	117	.15	<2	1.14	.03	.97	1	<5	<1	1
9970	1	2	<2	71	<.1	20	10	541	1.90	<2	<5	<2	12	10	<.2	2	9	25	.16	.048	30	35	1.30	125	.16	7	1.35	.04	1.21	1	<5	<1	1
9971	2	3	6	71	<.1	10	7	388	1.34	<2	<5	<2	12	17	<.2	<2	5	16	.17	.045	36	13	.81	99	.12	<2	.95	.02	.79	<1	<5	<1	1
9972	1	5	4	59	<.1	11	9	461	1.71	<2	<5	<2	13	21	<.2	2	6	23	.20	.053	28	15	1.09	120	.14	6	1.19	.02	1.05	2	<5	<1	6
9973	1	330	<2	64	1.2	7	7	568	1.86	2	<5	<2	13	19	<.2	3	3	28	.18	.050	30	12	.73	123	.16	6	1.04	.03	.84	<1	<5	<1	1
9974	3	84	4	58	.6	11	5	478	1.45	<2	<5	<2	10	15	<.2	<2	<2	22	.11	.029	31	19	.57	98	.12	2	.78	.08	.60	<1	<5	<1	4
9975	1	62	5	151	.1	12	11	1043	2.38	6	<5	<2	12	13	<.2	<2	9	39	.16	.046	24	17	1.23	120	.20	3	1.49	.03	1.35	1	<5	<1	40
9976	1	40	5	88	<.1	10	6	883	1.97	<2	<5	<2	10	23	<.2	<2	<2	30	.22	.053	39	19	1.03	114	.19	2	1.22	.05	1.05	<1	<5	<1	4
9977	2	15	3	69	<.1	10	6	750	1.97	<2	<5	<2	8	33	.3	<2	<2	33	.27	.052	31	18	1.06	115	.19	5	1.21	.05	.98	1	<5	<1	<1
9978	1	13	3	74	<.1	8	8	754	1.70	2	<5	<2	9	39	.4	<2	4	28	.28	.050	33	15	.91	114	.16	<2	1.06	.05	.81	1	<5	<1	<1
9979	1	19	2	108	<.1	27	11	1208	2.82	5	<5	<2	7	23	.5	<2	9	50	.27	.078	33	42	2.08	240	.26	<2	2.07	.04	1.87	<1	<5	<1	<1
9980	1	5	6	89	<.1	28	11	1047	2.75	3	<5	<2	8	23	.3	<2	6	51	.27	.076	38	45	2.00	205	.27	<2	2.00	.03	1.82	1	<5	<1	<1
9981	1	9	5	64	<.1	25	9	765	2.03	7	<5	<2	8	18	.6	<2	2	37	.18	.044	27	51	1.43	145	.18	5	1.49	.05	1.28	1	<5	<1	7
9982	1	24	2	76	<.1	19	11	941	2.45	5	<5	<2	6	12	<.2	<2	3	52	.20	.060	31	28	1.69	205	.23	3	1.74	.04	1.57	2	<5	<1	<1
9983	2	98	<2	72	<.1	17	8	897	2.00	3	<5	<2	8	11	.4	<2	4	35	.16	.050	37	26	1.31	212	.19	<2	1.36	.04	1.24	<1	<5	1	5
9984	1	9	2	98	<.1	13	9	841	1.86	<2	<5	<2	10	19	<.2	<2	4	29	.21	.054	41	26	1.25	177	.17	3	1.27	.04	1.09	<1	<5	<1	7
9985	1	6	3	52	.1	8	6	663	1.57	5	<5	<2	8	26	<.2	4	<2	27	.27	.050	37	16	.92	111	.16	4	.99	.06	.77	1	<5	<1	5
9986	2	7	<2	75	<.1	14	11	826	1.89	<2	<5	<2	9	21	.2	<2	3	24	.23	.059	38	22	1.31	146	.17	5	1.36	.03	1.21	20	<5	1	7
9987	1	6	<2	30	<.1	15	7	342	1.14	<2	<5	<2	16	17	<.2	<2	<2	12	.09	.017	36	33	.48	76	.08	5	.65	.02	.52	1	<5	<1	<1
9988	1	2	3	9	<.1	3	3	132	.44	<2	<5	<2	12	5	<.2	<2	4	2	.03	.010	29	9	.17	39	.03	3	.28	.03	.22	2	<5	1	<1
RE 9988	1	1	6	11	<.1	4	2	124	.43	2	<5	<2	12	5	<.2	<2	4	2	.03	.009	29	9	.17	37	.02	3	.28	.04	.22	2	<5	<1	1
9989	2	2	<2	16	<.1	8	2	156	.48	<2	<5	<2	12	5	<.2	<2	3	3	.03	.010	26	9	.35	30	.04	2	.40	.03	.33	<1	<5	1	5
9990	1	4	5	9	<.1	5	2	75	.41	2	<5	<2	11	6	<.2	2	7	2	.04	.010	32	6	.19	34	.02	2	.29	.03	.23	2	<5	<1	1
9991	2	2	4	11	<.1	6	2	84	.55	<2	<5	<2	11	9	<.2	<2	8	3	.03	.008	25	12	.27	97	.03	2	.37	.04	.28	1	<5	1	3
9992	3	4	<2	18	<.1	6	2	108	.59	3	<5	<2	11	6	<.2	<2	3	4	.03	.008	27	14	.40	39	.04	<2	.45	.03	.36	1	<5	<1	6
9993	1	2	<2	11	<.1	5	1	47	.44	<2	<5	<2	15	8	<.2	2	3	2	.03	.007	35	11	.14	37	.02	3	.28	.03	.20	1	<5	<1	<1
9994	2	3	2	15	<.1	5	2	122	.53	<2	<5	<2	15	8	<.2	<2	4	3	.04	.009	40	13	.35	53	.04	3	.43	.03	.33	2	<5	<1	1
9995	2	26	<2	98	<.1	25	14	799	2.46	5	<5	<2	9	36	<.2	<2	4	38	.28	.054	28	31	1.56	148	.17	3	1.57	.03	1.35	1	<5	<1	9
9996	1	3	2	187	<.1	47	23	1384	4.06	7	<5	<2	4	20	.8	<2	<2	86	.25	.061	10	60	3.23	192	.26	<2	3.04	.04	2.82	1	<5	<1	<1
9997	1	3	2	66	<.1	16	7	499	1.65	4	<5	<2	9	20	<.2	<2	8	28	.20	.050	24	26	.91	86	.15	<2	1.02	.04	.89	1	<5	<1	4
9998	2	6	2	52	<.1	9	8	452	1.91	6	<5	<2	12	23	<.2	<2	2	28	.18	.040	33	19	.75	141	.15	<2	.99	.04	.88	1	<5	<1	<1
9999	2	287	<2	61	1.1	6	7	442	1.82	<2	<5	<2	15	11	<.2	<2	<2	27	.12	.038	34	11	.76	144	.15	<2	1.06	.03	.93	1	<5	<1	2
10000	2	637	3	60	.3	11	8	484	2.10	7	11	<2	20	14	.3	<2	8	19	.08	.030	78	11	.73	135	.13	<2	1.11	.02	.89	2	<5	<1	9
STANDARD C/AU-R	19	61	38	124	6.8	72	32	1053	3.96	42	15	7	37	51	17.7	14	19	61	.49	.092	40	60	.93	186	.08	35	1.88	.05	.15	12	<5	<1	491

Sample type: ROCK CHIP. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Consolidated Logan Mines Ltd. File # 94-2898A

1022 - 470 Granville St., Vancouver BC V6C 1V5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb
#15 38-39m	<1	13	2	114	<.1	16	12	724	2.46	67	<5	<2	6	20	<.2	2	3	29	.20	.051	44	21	2.06	179	.24	<2	1.98	.04	1.54	<1		2	4
#15 39-49.5m	<1	19	2	97	<.1	10	9	593	2.33	7	<5	<2	6	15	<.2	<2	<2	26	.09	.016	20	16	1.74	156	.22	<2	1.83	.02	1.28	1		1	<1
RE #15 39-49.5m	<1	16	3	96	<.1	8	9	604	2.39	8	<5	<2	6	15	<.2	2	2	26	.10	.018	21	16	1.80	153	.23	<2	1.86	.02	1.31	1	<5	2	<1
STANDARD C/AU-R	19	58	38	123	6.9	68	31	1045	3.96	42	21	7	35	51	17.8	15	18	61	.51	.090	40	58	.91	187	.08	32	1.88	.07	.16	10	<5	4	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK CHIP AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 29 1994 **DATE REPORT MAILED:** Sept 8/94 **SIGNED BY** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

** TOTAL PAGE.010 **

Appendix IV

Kells Creek Property, Oppdal, Norway

Core Logs: Detailed Log

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 19th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 1 (3 A)

00,00 - 31,10 m White grey to bright pinky grey, potash feldspar (orthoclas, natronorthoklas) and quartz rich, muskovite/sericite, albite bearing and more seldom biotite bearing stratified orthogneiss with slaty and parallel stroctura and localy with ropy structure too. From ca.23,40 m begin prevailing a pell-mell and oolitic, eyed structure.
There was irregular created a lot of solution caverns by a metahydrothermal leaching activity. Caverns which was created by that way stretched along average schistosity. Solution caverns are irregular, but they are lensformet almost (1 - 5 mm, but up to 1 - 3 cm wide more seldom).
The average inclination of stratification - schistosity is 40 - 60 dgr. against to this trial hole's axis.
In this fundamental rock's matrix was irregular distributed a lot of very small slices, lenses and stripes of steel-grey hematite, which has diameter is 0,1 - 0,5 mm, seldom up to 0,5 - 1 cm. They streched along average schistosity almost or along diagonal joints or fractures too.
Between 5,30 - 5,40 m, 5,75 - 5,85 m and 6,30 - 6,40 m, 6,90 - 7,25 m and 10,35 - 10,40 m, 12,00 - 12,20 m, 15,00 - 15,25 m, 25,60 - 25,80 m, 27,15 - 27,50 m and between 28,40 - 28,55 m are positions of pseudoconphorm orthoclas, natronorthoclas and quartz rich cors grained metapegmatite. There are also solution caverns and small nests with irregular biotite.
Between 25,00 - 25,20 m, 26,10 - 26,15 m and 26,50 - 26,75 m and 27,20 - 27,40 m are developed rubble fault's zones.

31,10 - 95,60 m Bright grey to greenish bright grey chlorite muscovite/sericite rich, biotite, quartz, albite and potash feldspar bearing mica schist conglomerate or gneissic mica schist conglo-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 1 (3 A)

merate. In this conglomerates fundamental matrix with schistose - ropy and parallel structure are a lot of small and biger rolled pebbles and also more angular pebbles or fragments and they stretched almost along average schistosity. They was built by quartz, potash feldspar and albite mostly.
Average inclination of schstosity (stratification) is 60 - 50 - 40 dgr. against to this hole's axis.
Structure of this mica schist conglomerate changing between eyed and ropy parallel and slaty structure.
Size of conglomerate pebbles and fragments changing from 3 - 5 mm up to 1 - 5 cm, seldomup to 10 cm (diameter).
Several zones was attacked by a strong metahydrothermal leaching proces, which was created a lot of rather small and biger irregular solution caverns, which almost stretched along average schistosity (1 - 2 mm, more seldom max. 1 - 2 cm wide - lensformet).
Between ca.50,00 - 55,00m and 66,00 - 80,00m are zones was by progresiv metamorphism recrystalized biotite (flogopite) to diagonal and vertical small flacks - against to schistosity (max.diameter up to 2 - 5 mm).
Very small steel-grey hematite flacks, lenses and irregular thin, small stripes are irregular distributed in fundamental conglomerate matrix (max. diameter of hematite slices is 0,1 - 0,5 mm, seldom up to 0,5 - 1 cm). They stretched along schistosity or fractures.
Between 51,30 - 51,40 m, 51,80 - 51,85 m and 52,00 - 53,00 m, 71,60 - 71,65 m and between 72,85 - 73,40 m are created clorite - biotite (flogopite) rich fault's zones and fault's rubble breccie zones. Those zones are discordant almost.
Between 72,45 - 73,50 m is pseudoconphorm position of a brecciated pinky bright grey metapegmatite-gneiss with orthoclas - microcliline (?), quartz, albite and biotite - sericite and enclaves of surounding rock.
The average core recovery of whole zone between 31,10 - 95,60 m is 85 - 90 % about.

The trial hole no. 3 (3A) was stoped at depth 95,60 m : pr. July 10th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 21th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 2 (3 A)

00,00 - 01,95 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,95 - 08,60 m White pinky-grey to bright pinky-grey, potash feldspar (orthoclas), quartz rich, muskovite/ sericite and more seldom biotite (flogopite) and albite bearing orthogneiss with parallel schistose and localy ropy structure, but also pseudometamorphic eyed structure.
There was irregular created a lot of solution caverns by a metahydrothermal leaching proces. Those caverns almost stretched along the average schistosity. Solution caverns are irregular but they are almost lensformet (1 - 5 mm, to 1 - 3 cm wide max.) The fundamental matrix of this rock was attacked by strong leaching proces.
The average inclination of stratification - schistosity is 45 - 50 dgr. against to this trial hole's axis, later 50 - 45 dgr.
It is possible to fine localy some much more eyed structure with irregular rolled pebbles built by potash feldspar, albite and quartz, almost fractured. Those pebbles are localy much more lensformet.
Between 5,00 - 7,00 m zone with eyed structure (maybe an old listric-nappes zone).
More seldom is possible to fine small lensformed solution caverns which stretched along average schistosity.

08,60 - 68,55 m Greenish bright grey and greenish grey muscovite/sericite and chlorite rich, quartz and albite bearing and more seldom biotite bearing mica schist conglomerate or slot schist conglomerate. This rock has parallel, slaty, eyed, but also ropy structure.
In several zones was created recrystalized (progresiv metamorphism) biotite flacks and slices, up to 0,5 - 07 mm wide. Tose small biotite slices lieing vertical y against to schistosity (foliation).
A lot of rollet pebbles was localy lensformet

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 2 (3 A)

and more seldom like more angular fragments or pebbles too. Pebbles was stretched (orientaated) along average foliation (schistosity) Those pebbles has diameter 2 - 5 mm, more seldom 1 - 5 cm. They are built by potash feldspar, quartz and albite. The average inclination of schistosity (foliaation - stratification) is 50 - 40 dgr. against this hole's axis, but localy 50 - 60 dgr. and 35 - 40 dgr.
This rock is disharmonical foldet (rugose). Some zones has few, but some zones a lot of solution caverns, which are almost irregular but also lensformet and streched along average scistosity. Those caverns has diameter 1 - 3 mm up to 1 - 2 cm.
Between 27,40 - 27,80 m is positio of pseudodiscordant fractured tectonic zone.
Between 57,60 - 68,55 m are some pebbles up to 5 - 10 cm wide. Many of pebbles has more pinky colour here (more orthoclas substance in fundamental matrix of those pebbles).
Between 59,15 - 59,25m, 59,30 - 59,90m and 61,50 - 61,60m, 61,70 - 61,85m, 62,30 - 62,55 m and between 63,00 - 63,35m are pseudoconform positions of pinky white grey orthoclas, natronorthoclas and more seldom albite and quartz too. Those biger pebbles or angular fragments was fractured and silicifizated. That is possible to fine a lot of very small irregular thin slices and lenses or short stripes of steel-grey hematite 0,1 - 0,5 mm wide, much more seldom up to 1 cm. Those hematite slices stretched along average foliation.

68,55 - 69,25 m Dark grey or dark greenish grey chlorite rich and biotite/flogopite, sericite bearing mylonite and rubble breccie mylonite with a stratified structure, with a lot of thin stripes built by quartz, albite and potash feldspar too.
The average incliation is 40 - 45 dgr. against to this hole's axis. Both borders of mylonite zone are discordant.

69,25 - 71,15 m White grey and pinky white grey quartz, potash feldspar rich (orthoclas), muscovite/sericite and more seldom biotite bearing orthogneiss with ropy, parallel and seldom more irregular pell-mell structure. Some biger irregular porphyroblasts of bright pink-grey

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 2 (3 A)

kali-feldspar (orthoclas - mocrocline ?) are between 69,25 - 69,90 m, where are also boger irregular slices and flackes of steel-grey hematite up to 1 - 2 cm wide and 1 cm long (in metapegmatite).
A lot of rather small slices, lenses and thin short stripes of hematite are irregulary distributed in this orthogneiss (0,1 - 0,5 mm wide).
Many small and little bitt biger solution caverns, leached out by a metathermal proces are irregular distributed, almost stretched along average schistosity.
The average inclination of schistosity (stratification) is 30 - 35 dgr. against to this hole's axis.
The average core recovery is 90 % about.

71,15 - 72,35 m — Greenish dark grey chlorite rich, sericite and biotite/flogopite rich mylonite tectonic zone with discordant borders and with slaty structure and ropy, pell-mell parallel structure. There are many thin lensformet stripes, lenses and irregular beds built by quartz, albite and natronorthoclas too. This mylonite zone is very softy and fractured.
The average inclination of pseudoschistosity is 20 - 25 - 30 dgr. against to this hole's axis.
The average core recovery is 70 - 80 %.

72,35 - 74,90 m — Bright grey to bright greenish grey position of chlorite - sericite/muscovite rich and potash feldspar and quartz rich, biotite bearing gneissic mica schist with a lot of inclosures (rolled pebbles, angular fragments) of more pinky coloured. This rock has mostly eyed structure, but localy rubble breccie, ropy and pell-mell structure too.
This rock is disharmonical folded almost (rugose - ptygmatic foldning too).
There are a lot of small and biger irregular solution caverns in this rock-formation and they almost stretched along average schistosity. Some caverns are 1 - 2 - 5 mm wide, but some few of them are 1 - 2 cm wide and 1 cm long.
That is possible to fine many very small thin lenses and slices of steel-grey hematite in this fundamental rock's matrix.
Average inclination of foliation (schistosity) changing between 30 and 50 dgr. against

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 2 (3 A)

to this hole's axis.
The average core recovery is 80 % about.

74,90 - 76,05 m Dark greenish grey chlorite rich and sericite biotite/flogopite bearing mylonite tectonic zone with a pseudoschistosity. There are also some flat parallel orientated thin stripes and lenses which are build by quartz, potash feldspar and albite matrix. Some biger inclosure are built by matrix of serrounding rock (chlorite-sericite mica schist gneiss conglomerate atc.)
The average inclination of foliation (schistosity) is 30 - 50 dgr. against to this hole's axis.
The core recovery is 75 - 80 % about.

76,05 - 87,75 m Greenish bright grey chlorite - muskovite/sericite rich and potash feldspar and quartz rich albite and more seldom biotite bearing gneissic mica schist conglomerate with irregular bedding, pseudoschistosity and ropy and eyed structure. A lot of rolled pebbles and some more angular pebbles or fragments stretched along schistosity (foliation). Some of those pebbles has more bright pinky colour (ca. from 88 m about). Pebbles or fragments are almost 2 - 5 mm wide, but some of them are up to 1 - 5 cm wide. They are built by potash feldspar (orthoclas), albite and quartz.
The average inclination of foliation (schistosity - stratification) changeing between 45 - 50 dgr., later 50 - 60 dgr. against to this hole's axis.
In this rock are a lot of small and some big solution caverns created by a metahydrothermal leaching proces (kaolinization - sericitization : regresiv metamorphism). Those mostly irregular caverns are 1 - 5 mm wide, more seldom 1 - 2 cm wide.
That is possible to fine (more seldom) some very small irregular slices, short sripes and very small lenses of hematite in this rock's fundamental matrix (max. 0,1 - 0,2 mm, seldom 1 cm or more wide),
The average core recovery is 90 % about.

87,75 - 98,45 m Pinky cream white or pinky white grey potash feldspar (orthoclas, natronorthoklas) rich, quartz and albite bearing and muskovite/sericite bearing, seldom biotite bearing orthogneiss with a parallel, schistose and a ropy

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 2 (3 A)

structure. Sericite/muskovite and little bitt more seldom biotite/flogopite and chlorite built covers of stratification planes.
The average inclination of foliation (schistosity) is 50 - 60 dgr. and from 93 - 94 m 40 - 45 dgr. against to this hole's axis.
Several positions of this orthogneiss has much more small slices of biotite on stratification planes (f.ex. between 88,00 - 89,30 and 97,40 - 98,45 m). A lot of very small thin lenses, slices and thin, short stripes ofhematite are irregular distributed in the fundamental matrix of this orthogneiss. Thohematite slices has steel-grey colour. They are almost very small 0,1 - 0,5 mm wide, more seldom pu to 2 mm wide. They are stretched along average foliation (schistosity).
This orthogneiss was strong attacked by a very strong metahydrothermal leaching proces, which was created a lot of irregular solution cavitys. Those caverns stretched almost along average schistosity (foliation - stratification) or along diagonal joints. Many joints (fractures) was stronly silicifizated (bright grey quartz). A lot of solution caverns are 1 - 5 mm wide-long, but few of them are biger and always up to 1 - 2 cm wide.
The average core recovery is 95 - 100 %.

98,45 - 100,20 m Bright grey to white grey potash feldspar rich, albite, biotite, muscovite/sericite bearing and quartz rich orthogneiss with parallel schistose structure which changeing localy to ropy and eyed structure. Muscovite/sericite, biotite and chlorite built covers of stratification planes.
Average inclination of schistosity (foliation - stratification) changeing between 45 - 50 and 40 dgr. against to this hole's axis.
This rock was very hard attacked by a metahydrothermal leaching proces which was created a lot of irregular caverns stretched almost along schistosity (foliation). Those coverns are 1 - 5 mm wide, but seldom biger.
That is possible to fine many very small thin and short stripes, slices or lenses of hematite (steel-grey - 0,1 - 0,5 mm wide).
The average core recovery is 90 % about.

The trial hole no. 2 (3A) was stoped at depth 100,20 m : pr. July 20th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 15th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

FAX No. 095 1 604 689 0288

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

00,00 - 01,35 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,35 - 35,05 m Chlorite-sericite/muskovite rich mica schist conglomerate and localy more like an aglomerate. In some beds or zones is possible to fine little slices of biotite and much more scarcely some small not orientated needels of hornblende. Very seldom is possible to fine flat deformated small grains of pyrite and few little lenses, slices of hematite (max. 0,5-1mm long), which are orientated by average schistosity (bedding). The average dip of foliation of this mica schist conglomerate is 50 dgr. against the trial hole's axis. Localy is foliation's dip variable between 40-60 dgr. and localy between 70-80 dgr. Conglomerate's rolled pebbles are like lens and seldom like angular fragments. Diamete those pebbles variate from 1-2-3 mm up to 5 - 10 cm, but mostly 1-2 cm. Some biger pebbles are build by quartz and the other by quartz, orthoclas (pink colour), natronorthoclas and albite (which makes some corones around orthoclas/microcline deformate graines or matrix = albitization : metahydrthermal alteration). Those biger pebbles and fragments are fractured localy. Such joints are refilled by chlorite-sericite matrix and seldom by albite. Average core recovery is 95 %. Conglomerate mica schist is folded at several zones. We can see a irregular and disharmonical folds with a cm - dm amplitudes. Several zones of this rock are leached by metahydrothermical alteration, which leached out a matrix of small solution cavityes, solution caverns which almost foloving the average foliation of this conglomeratic mica schist (kaolinization)

35,05 - 38,40 m Clorite-sericite rich, biotiteceous gneissic mica shist with a lot of almost parallel, irregular, lensformed stripes and thin beds of kali-feldspar and albite and quartz matrix.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

This rock has bright grey colour mostly and has an eyed structure. Basic or fundamental matrix of small pebbles was built by natron-orthoclas - orthoclas and plagioclas (albite) and quartz. Pebbles are irregular and localy lensformed and rotated too. Those pebbels are not biger then 1 - 2 mm (diameter). This rock has almost ropy structure without joints and fractured zones. The core recovery is near 100 %.
The average inclination of a foliation is 70 - 80 - 85 dgr. against the trial hole's axis. Localy we can see several leached zones with a lot of rather small and biger solution caverns, max 5 - 10 mm at diameter wide. Those solution cavityes folowing an average foliation's inclination mostly.

38,40 - 39,60 m Bright grey, muscovite/sericite rich eyed gneiss with some zones more like mica schist gneiss with eyed structure and higher content of chlorite and biotite (flogopite). A fundamental matrix of a lot of irregular parallel thin beds, lenses and orientated small pebbles and little bit more angular fragments are built by natronorthoclas, orthocklas, albite and quartz. Those pebbels are not biger then 5 - 10 mm at diameter. The averege inclination of an average foliation is 70 - 80 dgr. against the average hole's axis.
Localy was this rock attacked by a metahydrothermal leacheng proces. A lot of small and biger, lensformed, solution caverns, max. 1 - 2 mm, up to 5 - 10 mm at diameter folowing an average foliation always. That is possible to fine a white kaolin in those solution caverns. Core recovery is 95 %.

39,60 - 46,40 m Grey and localy more dark grey gneissic mica schist and mica schist muskovite/sericite and biotite rich with a variable contant of chlorite (localy flogopite). A lot of parallel but irregular beds, stripes and lenses are built by natronorthoclas, orthocklas, albite and quartz. This rock has a very fine bedding structure always, localy disharmonical and almost flat foldet.
The average dip of schistosity changeing between 60 and 80 dgr. against to hole's axis, but from 43 m about 50 - 60 dgr.
Localy was this rock injected by parallel and almost discordant beds of very bright grey orthogneiss, kali-feldspar rich with albite,

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

with muscovite/sericite and more seldom biotite. Localy is possible to fine some discordante pebbles (lensformate), 5 - 10 cm at diameter, built by kali-feldspar and albite and quartz.
Localy are zones of biotite rich mica schist or gneissic mica schist strongly leached by a metahydrothermal activity (kaolinizated and biotite changed to flogopite or chlorite), special from 44,70 m about. The core recovery of whole this position is 70 - 75 % only.

46,40 - 47,70 m Very bright pink-grey orthogneiss with a parallel bedding structure, built by orthoclas, microcline, natronorthoclas and more less by albite (albitizated corones around pink orthoklas - microcline porphyroblasters or matrix) and by quartz and much more less by biotite and muscovite/sericite.
Between 46,65 - 46,70 m, 47,05 - 47,10 m, 47,45 - 47.55 m, 47,60 - 47,62 m and between 47,65 - 47,75 m are conform beds of biotite very rich gneissic mica schist with a very fine bedding structure (paragneiss ?).
The average inclination of foliation changing between 70 - 80 dgr. against to this hole's axis, localy between 60 - 70 dgr.
Localy was developed a lot of small solution caverns (kaolinization - special at albitizated corones and zones around orthoclas - microcline porphyroblasts or matrix). Those solution cavitye are 2 - 5 mm wide, max. up to 5 - 10 cm, but always very irregular and almost folowing the average foliation of this rock.
The core recvovery of whole this zone is 90%.

47,70 - 66,80 m Almost massiv, bright pink-grey and very bright pink-grey orthogneis with a bedding and a cataclastic stucture. The main minerales each built this rock are orthoclas and microcline, natronorthoclas and albite. More seldom is present little flakes and slices of biotite, which are localy acumulated at small nests. Sericite/muscovite is olso seldom mineral, around joints, foliationplanes atc. An orientation of mica minerals folowing always the average foliation.
That is possible to fine a lot of thin small lenses, slices of iron-grey hematite, irregulary replaced everywhere in this orthogneiss. This hematite lenses and slices folowing the average schistosity.
The average inclination of foliation is 70 -

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

80 dgr. against the trial hole's axis, localy up to 85 dgr.
Almost everywhere is a lot of diagonaly crossing joints, max. 1 - 2 mm thick, refilled by bright grey quartz (a strong silisifization). The average inclination of those quartz's joints is 50 - 60 dgr. against the hole's axis and 30 - 35 dgr. against the average schistosity.
It was localy developed many small and biger solution caverns after a strong attack of metahydrothermal leaching proces in this rock (kaolinization of feldspars - mostly albite). Those caverns folowing the average schistosity. Some covern has inside rests of white kaolin. Those zones of orthogneiss can be possibly secondary enrichet by gold??
Core recovery of whole this position of orthogneiss body is between 95 - 100 %.
The borders of orthogneiss complex against overlying rock and subjacent rock are discordant.

66,80 - 69,45 m Bright grey or grey muscovite/sericite and chlorite rich gneissic mica schist with some changing of content of biotite (very small slices which folows the average foliation). A lot of irregulary almost parallel thin beds, stripes and lenses are built by quartz, very bright albite and natronorthoclas.
Localy is content of chlorite very high, biotite is somewhere changed to flogopite.
It is seldom possible to fine some very small thin slices or lenses of metalic grey hematite (max. 0,1 - 0,5 mm, very seldom 1 mm long).
Some zones are folded by disharmonical folds of cm - dm amplitude.
The average inclination of schistosity is 70 - 80 dgr. against to the hole's axis.
Between 68,40 - 68,45 m is position of a discordant bright grey quartz.
Localy is this rock leached by a metahydrothermal attack. There are some small irregular solution cavityes or solution caverns where is inside rests of whitte kaolin and biotite is almost changed to flogopite and to chlorite.
The average core recovery of this position is 75 - 80 % about.

69,45 - 72,70 m Grey and dark grey biotite/flogopite and muscovite/sericite rich and chlorite bearing mi-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

ca schist to gneisic mica schist, and localy mica slot with almost parallel stratification. We fine a lot of thin, irregulary stripes, beds and lenses built by quartz and more seldom potash feldspar and albite.
The average inclination of stratification is 70 - 80 dgr. against to the average hole's axis.
This mica schist complex was localy injected by migmatitization and alteration. Between 69,50 - 69,55 m, 69,75 - 69,85 m, 70,20 - 70,25 m, 71,45 - 71,55 m, 71,60 - 71,65 m and 72,05 - 72,07 m are pseudoconform positions bright grey orhogneiss (metamigmatite) built by potash feldspar, albite and quartz, muscovite/sericite and biotite bearing. It is seldom posible to fine small hematite slices and lenses of hematite.
There are localy arised many small and biger solution caverns by a strong attack of metahydrothermal leaching (kaolinization atc.). Those solution caverns folows the average foliation (stratification). Some caverns are biger and irregular, up to 1 - 5 cm at diameter.
The average core recovery is 70 - 80 % about.

72,70 - 76,55 m Grey biotite/flogopite and muscovite/sericite rich, chlorite bearing, quartz, potash feldspar and albite rich gneissic mica schist. Structure is almost stratified and parallel roupy-formet.
The average inclination of schistosity (parallel stratification) is between 70 - 80 - 85 dgr. against to the trial hole's axis.
At several zones is this rock disharmonical foldet.
Localy has this gneissic mica schist augen (eyed) structure with a lot of peblles, max. 10 mm at diameter, built by kali-feldspar and albite and quartz.
Between 73,20 - 73,35 m, 73,95 - 74,05 m, 74,25 - 74,30 m, 74,90 - 75,00 m are positions of discordant or pseudodiscordant white-grey quartz (metahydrothermal - boudinage) with irregular enclosures of potash feldspar and albite.
I was localy created a lot of small and biger irregular solution caverns by a strong metahydrothermal leaching proces. Those caverns folows almost the average foliation (stratification).
It is localy possible to fine many diagonal joints, refilled by potash feldspar, albite.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

They are also attacket by metahydrothermal leaching.
The average core recovery is 80 - 90 %.

76,55 - 76,75 m Little bitt pinky white-grey discordant position of metahydrothermal quartz (boudinage). Core recovery is 90 % about.

76,75 - 94,40 m Greenish grey chlorite, muscovite/sericite rich, biotite bearing and quartz rich and potash feldspar and albite bearing mica schist or mica slot rock complex with a stratified and rope structure and rogose. It is localy created a eyed structure f.ex. between 76,00 - 86,50 m, 87,00 - 88,00 m, 89,00 - 91,00 m. Pebbles in those zones are not so big, 1 - 5 mm, max. up to 1 - 2 cm at diameter, almost rotated, built by quartz and potash feldspar and albite.
The average inclination of foliation (stratification - schistosity) is 75 - 80 - 85 dgr. against to the trial hole's axis.
Between 88,35 - 88,45 m and 93,55 - 93,60 m are of discordant grey-white quartz (metahydrothermal - boudinage). Several zones of this mica schist are attacked by a strong metahydrothermal leaching proces. This proces was created a lot of small and biger solution caverns, 1 - 5 mm up to 1 - 3 cm at diameter wide. Those caverns is always folowing average stratification planes (foliation, scistosity). Core recovery is more then 95 % about.

94,40 - 112,60 m Greenish grey or greenish bright grey chlorite - sericite/muscovite rich mica schist or mica slot conglomerate. A matrix of a lot of parallel thin and irregular stripes, beds and long lenses are built by quartz, potash feldspar and albite. Pebbles and rolled pebbles and some more seldom angular fragments built by bright grey-pink orthoclas - microcline, bright grey quartz and white albite and anorthoclas. Those pebbles are almost irregular distributed in this rock foundamental matrix. Only some of pebbles are rather big, up to 10 - 15 cm at diameter, but they are almost 5 - 10 - 20 mm at diameter.
The average inclination of stratification (foliation - schistosity) changing between 70 - 80 dgr. against to trial hole's axis to 60-50 - 40 dgr. down from 109,00 m to 112,60 m.
Between 101,00 - 101,50 m and 112,35 - 112,45 m are positions of grey-white discordant quartz (maybe boudinage - maybe pebbles).

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 3 (3A)

Localy there are created some irregular solution caverns by a strong metahydrothermal leaching proces (more and more less fro ca. 97,00 m about).
The average core recovery of mica schist coglomerate zone is 95 %.

The trial hole no. 3 (3A) was stoped at depth 112,60 m : pr. July 12th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 28th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 4 (3 A)

00,00 - 01,50 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,50 - 07,35 m White pinky-grey to bright pinky-grey, potash feldspar (natronorthoclas, orthoclas, microcline ?) rich and quartz rich, muscovite/sericite, albite and more seldom biotite bearing orthogneiss (acidic metavolcanite - intrusive rock - metaaplite or/and metapegmatite - efusive rock - metarhyolite) with shistose-ropy structure (bedding), but with many diagonal fractures and joints refilled by quartz (very strong silicified). Muscovite/sericite and more seldom biotie created some cover-film on foliation (schistise-stratification) planes. The average inclination of foliation (schistosity) is 70 - 80 dgr., localy 85 dgr. against to this hole's axis.
That is possible to fine a lot of irregular solution caverns lengthened along schistosity of this rock. Those caverns was created by a strong metahydrothermal leaching proces.
In fundamental matrix of this orthogneiss was irregular distributed a lot of rather small slices, lenses and thin and short stripes of steel-grey hematite (size changeing between 0,1 - 0,5 mm, very seldom more). Those hematite very small slices, lenses almost stretched foliation of this orthogneiss.
The average core recovery is 95 - 100 %.
Between 7,15 - 7,35 m is situated position which has much more clear bedding and much more higher intent of biotite and muscovite/sericite. This position was developed much more irregular solution caverns, almost small They also stretched direction of foliation.

07,35 - 09,55 m Grey or greenish dark grey biotite/more seldom flogopite, muscovite/sericite rich and also potash feldspar and quartz rich, albite and chlorite bearing paragneiss or mica schist gneiss (maybe primary position of an itermediare and acidic tuff scrambled with a pelitic sedimentary material). This rock has

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 4 (3 A)

parallel ropy and fluidial structure with many passage zones with much more ropy and eyed structure. Pseudostratification planes has almost cover built by biotite and clorite. Small rolled pebbles and more angular pebbles and fragments are also lensformed stretched along average foliation.
The average inclination of foliation (pseudostratification) is 70 - 80 dgr., but also localy changeing between 60 - 85 dgr. against to this hole's axis.
That is very difficult to find some rare very small and deformated grains of pyrite and very small slices or lenses of hematite stretched along scistosity.
This rock was also atacked by a strong metahydrothermal leaching proces (kaolinization, sericitization). There was created a lot of small, irregular, lensformed solution cavitys.
Between 8,40 - 8,50 m is discordante position of white grey quartz (fractured zone of quartz breccie or boudinage).

09,55 - 26,35 m Bright grey to grey biotite, muscovite/sericite rich and also quartz, potash feldspar, albite rich chlorite bearing gneissic mica schist or mica schist gneiss (paragneiss or intermediar and acidic metatuff mixed with metasediment) with parallel, ropy and fluidial structure and also changed or combinated with eyed/aglomeratic structure.
The average inclination of foliation (pseudostratification - schistosity) is 70 - 80 dgr. against to this hole's axis.
That is very difficult to find some rather small irregular and deformated grains of pyrite and very small slices or lenses of hematite. Those stretched along foliation in fundamental matrix of this rock.
Between 17,10 - 17,30 m and 22,50 - 22,75 m are positions of pseudoconphorme biotite very rich paragneiss with irregular parallel and oolitic and ropy structure. Those zones was also attacked by a strong metahydrothermal leaching proces which was created a lot of irregular solution caverns, stretched along foliation (schistosity). Those caverns are lensformed or rather irregular and thers size changeing between 1 - 5 mm, max. up to 1 - 2 cm (wide - long).
Between ca. 22,00 - 26,35 m was a very strong metahydrothermal leaching proces most effec-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 4 (3 A)

tive. There are much more solution caverns then in the ather zones of whole this position between 9,55 - 26,35 m. There is possible to find some much biger irregular solution caverns.

26,35 - 61,00 m Bright greenish grey muscovite/sericite and chlorite and quartz rich, potash feldspar and albite rich and biotite little bit more seldom bearing mica schist conglomerate with parallel-ropy-fluidial and eyed structure. Many rolled pebbles are always lensformed and almost stetched along the average schistosity. Some pebbles are more angular or more like fragments (possible a intermediar and acidic volcanic metatuff mixed with metapelitic sediment). Rolled pebbles and fragments was buildt by quartz, quartz & potash feldspar & albite. Some of those pebbles has much more pinky colour (built by orthoclas or microclin composition). Size of those pebbles/fragments changed between 1 - 5 mm, more seldom up to 1 - 5 cm or more.
The average inclination of foliation (schistosity - pseudostratification) changeing between 70 - 80 - 85 - 70 dgr. ageainst to this hole's axis. In several zones is this rock formation flat or disharmonical foldet.
Several zones of this complex was much more strongly attacked by a metahydrothermal leaching proces then the ather. There was created many irregular or lensformed solution caverns which stretched along schistosity. Those caverns size changeing between 1 - 5 mm, up to 1 - 2 cm (speciel between 28,00 - 31,00 and 55,00 - 60,60 m).
That is rather difficult to find rare hematite as very small slices or lenses stretchd along schistosity (size changeing between ca. 0,1 - 0,3 mm max.).
Between 38,45 - 38,55 m and 46,70 - 47,10 m are positions of discordant/pseudodiscordant white grey quartz with many diagonal joints (inside), refilled by a younge, more white quartz (metahydrothermal - silicified quartz veins).
Between 58,55 - 59,55 m and 60,10 - 60,50 m are some more fractured zones.
Total core recovery is 90 - 95 %.

61,00 - 61,55 m White grey quartz wit a lot of diagonal and transversely joints and fractures, refilled by a younger, much more bright metahydrother-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 4 (3 A)

mal quartz (very strong silicified). This quartz position has discordant/pseudodiscordant borders against neighbouring rocks.

The trial hole no. 4 (3A) was stoped at depth 61,55 m : pr. July 28th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 23th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 5 (1 A)

00,00 - 02,40 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

02,40 - 110,55 m Grey, localy more dark grey potash feldspar, quartz and albite rich and biotite rich and muscovite/sericite and chlorite bearing gneissic mica schist aglomeratic or conglomeratic gneissic mica schist with irregular, parallel eyed structure combine with parallel ropy structure. Several zones of this rock - complex are much more biotite rich (dark grey), f.ex. between 28,30 - 110,55 m.
The average inclination of foliation (schistosity - stratification) is 70 dgr. against to this hole's axis, but in several zones is 60 - 70 dgr.
In several zones is this rock disharmonical or flat foldet and there changeing inclination of schitosity between 20 - 80 dgr. against to this hole's axis.
In this rock are a lot of irregular thin and lensformed stripes, slices and beds built by potash feldspar and quartz and albite.
In this rock are many rolled pebbles, angular pebbles/fragments and lens-pebbles built by quartz, quartz & potash feldspar or quartz & potash feldspar & albite. Those pebbles/fragments are 2 - 5 mm wide, but several of them are 1 - 2 cm wide or more. Pebbles was always sretched along the average schistosity.
Between 15,05 - 15,30 m and 15,45 - 15,55 m are to conforme positions biotite and chlorite rich with ropy and fluidal structure (primary maybe metamaphic dikes or mylonitic zones).
Between 16,20-18,70 m, 21,20-22,75 m, 23,80-25,20 m, 26,50-26,60 m, 26,65-26,70 m, 26,80-26,90 m, 26,95-27,00 m, 32,05-32,55 m, 42,30-42,35 m, 47,10-47,15 m, 57,50-57,75 m, 69,25-69,40 m, 71,25-71,55 m, 75,90-76,60 m, 80,45-80,65 m, 80,95-82,60 m, 82,75-83,10 m and between 83,85-84,20 m are pseudoconform positions of potash feldspar and quartz and albite rich, muscovite/sericite bearing and little

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 5 (1 A)

bit more seldom biotite bearing white grey orthogneiss with parallel bedding structure. In many of those position was created irregular solution caverns, 1 - 5 mm wide, locally up to 1 - 2 cm wide. That is possible to fine not so much very small slices, lenses and thin and short stripes of steel-grey hematite (0,1 - 0,5 mm wide only, rare biger). Those more biotite rich zones, with eyed and ropy structure was also attacked by a strong metahydrothermal leaching proces (kaolinization - sericitization atc.). There was created a lot of solution caverns stretched along average fliation (schistosity - stratification). Normal size of such lensformed or irregular caverns are 1 - 5 mm, but thy can be up to 1 - 2 cm wide too f.ex. between 40,00 - 75,00 m.
Between 7,30-7,35m, 11,70-12,00m and 12,50--13,40m, 57,90-57,95m, 80,45-80,65m, 107,00--107,50m and between 109,25-109,55m are posisjons of pseudodiscordant, biotite/flogopite and chlorite rich metamylonite - greenschist zones. Those zones has greenish grey or greenish dark grey colour and they are fractured, strngly cloritizated (biotite - flogopite - chlorite : regresiv metamorphism proces). They are very soft and core recovery was not so high here. Inclination of foliation changeing between 50 - 80 dgr. against to this hole's axis.
Between 31,00-31,60m, 38,60-38,80m, 39,50--39,65m, 40,15-40,20m, 58,35-58,65m, 75,95--76,85m, 89,15-89,35m, 94,10-94,20m, 95,00--95,10m, 95,40-95,95m, 100,35-101,45m and 101,85-102,25m and between 109,00-109,15m are discodant or pseudodiscordant positions of tectonic quartz breccies, mostly with biger irregular fragments of metahydrothermal bright grey / white grey quartz and many fractured fragments and enclosures of surrounding rocks. That is possible to fine steel-grey hematite very small irregular and thin flacks, slices or lenses and irregular thin and short stripes max. 1 cm long.

The trial hole no. 2 (3A) was stoped at depth 110,55 m : pr. July 20th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 24th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 6 (1 A)

00,00 - 01,45 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,45 - 72,45 m Bright grey or grey albite and potash feldspar rich, biotote, muscovite/sericite bearing paragneiss (acid volcanic metatuff) with the parallel, schistose (pseudoschistose) structure, combine with eyed structure and ropy structure too. Eyed structure dominate between 16,70 - 18,70 m, 24,55 - 31,80 m, and 37,80 - 38,00 m, 38,60 - 39,00 m, and between 40,40 - 40,90 m and 56,80 - 70,00 m. In those zones is content of biotite much more higher /biotite flackes and slices are stretched along a parallel schictosity). In those zones are a lot of rolled pebbles and little bit more angular pebbles or angular fragments which are 1 - 5 mm wide, seldo max. 1 cm or more (diameter). Some pebbles are more lensformed and thyy was stretched along an average schistosity.
Average inclination of foliation (pseudostratification) chngeing between 50 - 45 - 40 and later between 60 - 70 dgr. to 50 and 45 dgr. against to this hole's axis. Between 69,80 - 72,20 m changeing inclination of schistosity between 20 - 10 - 30 dgr. and rock is almost flat or disharmonical folded.
Between 3,35-3,70 m, 3,95-4,75 m, 9,50-9,55m, 11,15-11,20 m, 13,35-13,40 m, 15,70-15,75 m, 15,80-15,85 m, 15,95-16,60 m, 18,70-18,90 m, 19,50-19,75 m, 23,70-24,55 m, 25,55-25,60 m, 26,55-26,60 m, 26,85-26,95 m, 27,15-27,55 m, 31,55-31,65 m, 35,95-36,15 m, 37,00-37,80 m. 38,15-38,25 m, 39,20-39,25 m, 40,05-40,15 m, 41,50-41,65 m, 42,10-42,20 m, 43,00-43,15 m, 43,50-43,60 m, 53,70-53,75 m, 57,05-57,10 m, 59,70-59,75 m, 60,50-60,55 m, 62,55-62,65 m and 70,25-70,30 m are pseudoconcordant positions (beds) of white grey potash feldspar rich, quartz and albite bearing, and muscovite/sericite bearing orthogneiss with a parallel bedding (schistose and ropy structure) In those positions (acid metavolcanid dikes

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 6 (1 A)

or injections) is possible to fine many small solution caverns stretched along average foliation (pseudoschistosity). Those caverns are almost irregular, 2 - 5 mm, seldom 1 cm wide. In those orthogneiss positions was almost irregular distributed very small lenses, slices, more seldom stripes of steel-grey hematite (0,1 - 0,5 mm wide), stretched along a schistosity.

Between 40,05 - 40,07 m and 50,40 - 50,45 m are parallel stripes, 2 - 3 mm thick, of dark steel-grey hematite.

Between 34,10-35,00 m, 35,20-35,60 m and between 36,00-36,75 m, 37,00-37,80 m and between 42,40-42,50 m and 54,45-55,35 m are positions of discordant fault's zones and fault breccies with fragments of quartz, potash feldspar & quartz and surrounding rocks. There are many small and biger solution caverns.

The average inclination of foliation is 60 - 70 - 80 dgr. against this hole's axis.

Between 16,20-16,25 m, 17,40-18,40 m and between 22,20-22,30 m are conphorn or pseudoconphorm positions of chlorite and biotite/flogopite rich, sericite and quartz and albite and potash feldspar bearing greenschist and mica greenschist with pseudoschistose, parallel and ropy - mylonite structure (tectonic mylonite fault's zones or regrsiv metamorph maphic dikes).

The average core recovery is 90 - 95 %.

72,45 - 103,20 m Bright grey muscovite/sericite, quartz rich potash feldspar, albite and biotite/flogopite bearing gneissic mica schist or slot schist with stratified, parallel structure which also changeing to ropy, pell-mell structure and eyed sructure. Several zones are more biotite rich. There are several zones with a lot of rolled pebbles (eliptic or lensformed), built by quartz and by quartz & potash feldspa and albite. Several zones of this rock formation are much more like a mica schist conglomerate.

The average inclination of schistosity (stratification) changeing between 30 - 40 dgr. or 10 - 30 dgr. against to this hole's axis (ca. between 78,00 - 80,60 m and between 60 - 80 dgr. against this hole's axis.

Several zones was very intensiv foldet (disharmonical, ptygmatic and flat-foldet).

Between 73,00-73,30 m, 77,45-77,85 m and between 79,20-79,30 m, 79,80-79,90 m and between

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 6 (1 A)

81,70-82,45 m, 82,60-82,70 m, 83,20-83,25 m, 83,35-83,45 m, 90,00-90,20 m, 94,30-95,10 m and 96,10-96,35 m are pseudoconphorm or discordant positions of ptash feldspar - quartz rich and albite, muscovite/sericite, more seldom biotite bearing orthogneis and gneissic breccie (fault's zones) with metahydrothermal quartz. Those positions was maybe primary dikes (acid intrusiv - migmatitization) of an acid pegmatite - aplite matrix. Between 88,60 - 103,20 m was this mica schist rock very strong fractured and also attacked by a strong metahydrothermal leaching proces.
The average core recovery of whole zone between 72,45 - 103,20 m is 80 - 85 % about. Between 88,60 - 103,20 m was core recovery 60 -70 % only and there was necesary to cementated this hole's walls.

The trial hole no. 6 (1A) was stoped at depth 103,20 m : pr. July 22th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 24th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 7 (1 A)

00,00 - 01,50 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,50 - 06,85 m Bright pinky grey to white pinky grey, potash feldspar (orthoclas) rich, albite, sericite/muscovite bearing, more seldom biotite bearing orthogneiss. This rock's fundamental matrix is diagonal fractured (a lot of joints) and silicifized. This rock has parallel, ropy and pseudomorphic schistose structure.
In orthogneiss was created not so much irregular solution caverns 1 - 5 mm wide, more seldom up to 1 cm wide, stretched along the average foliation (pseudoschistisity). Those caverns are lensformed or irregular.
Between 6,20 - 6,30 m and 6,70 - 6,75 m are conform parallel positions of biotite rich, with parallel bedding and ropy structure.
In several zones are in this orthogneiss (metaaplite, metarhyolite, metapegmatite ?) is possible to fine a lot of or few very small slices, lenses or thin and short stripes of steel-grey hematite (max. 0,1 - 0,3 mm wide), stretched along schistosity.
The average inclination of foliation (stratification - schistosity) changeing between 40 and dgr. or 60 - 75 dgr. against to this hole's axis.
The average core recovery is 95 - 100 %.

06,85 - 16,95 m Grey or greenish grey or greenish bright grey muscovite/sericite and biotite rich and also quartz, potash feldspar, albite and chlorite bearing gneissic mica schist or paragneiss (acid volcanic metatuff). This rock has a parallel, pseudomorphic, ropy and eyed structure. In this rock was created a lot of pseudoparallel thin stripes and beds or slices of quartz, potash feldspar and albite matrix.
Rolled pebbles or angular fragments/pebbles was built by quartz, potash feldspar and albite.
The average inclination of schistosity (stra-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 7 (1 A)

tification) is 70 - 80 dgr. against to this hole's axis.
Between 10,40 - 10,65 m, 10,90 - 11,05 m and 11,25 - 14,25 m are pseudoconphorm positions of pinky white grey orthogneiss (the same type as between 1,50 - 6,85 m). Localy are some solution caverns too. The inclination of foliation (schistosity) is 75 - 85 dgr. against to this hole's axis.
Between 7,80 - 8,10 m, 8,30 - 8,40 m and between 8,70 - 8,90 m, 9,40 - 9,50 m, and 9,80 - 9,90 m, 11,40 - 11,90 m, 12,50 - 12,60 m and between 13,00 - 13,40 m, 16,70 - 16,80 m was created fractured zones of fault breccies

16,95 - 19,00 m Bright pinky grey or white pinky grey orthogneiss (the same type as between 1,50 - 6,85 m).
The average inclination of schistosity (foliation is 70 dgr. against to this hole's axis.
This orthogneiss position was almost strogly fractured.
The average core recovery is 80 - 90 %.

19,00 - 25,30 m Grey or bright grey gneissic mica schist or paragneis (acid volcanic metatuff near the same type as between 6,85 - 16,95 m), strong attacked by a metahydrothermal leacheng proces (sericitizated, chloritizated and kaolinizated) and very fractured in several zones (very soft fracturet material).
The average core recovery is 50 - 70 % about.
Between 20 - 22 m and between 24 - 25 m was loss core.

The trial hole no. 7 (1A) was stoped at depth 25,30 m : pr. July 21th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, July 18th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 8 (1A)

00,00 - 01,60 m Quartenary glacial sediments : solifluction material, morainic debris and glacial till (without core).

01,60 - 29,70 m White-grey to bright grey, potash feldspar, quartz rich, muskovite/sericite, biotite (flogopite) and albite bearing gneiss/gneissic schist with parallel and ropy structure. There was irregular created a lot of solution caverns by a metahydrothermal leaching proces. Those caverns almost folows average schistosity. Solution caverns are irregular, but they are lensformet almost (1 - 5 mm, up to 1 - 3 cm wide max.) The fundamental rock was attacked by very strong leaching proces (kaolinization,sericitization,chloritization) The average inclination of stratification - schistosity is 70 - 80 dgr. against to this trial hole's axis.
It is possible to fine localy some much more eyed structure with irregular rolled pebbles built by potash feldspar, albite and quartz, almost fractured. Those pebbles are localy much more lensformet.
Between 3,40 - 3,50 m and 27,40 - 27,60 m are positions of potash feldspar and quartz orthogneiss of fold's tops. Inclination of schistosity there is 20 - 30 dgr. against to this hole's axis. There are also irregular solution caverns.
Between 9,60 - 9,70 m, 9,80 - 9,85 m, 10,10 - 10,20 m, 10,70 - 11,oo m, 12,70 - 12,80 m, 13,90 - 14,15 m, 14,80 - 14,90 m and between 15,50 - 15,60 m are positions of pseudoconform potash felspar, quartz rich and albite bearing orthogneiss or orthogneiss rubble breccie with a stratified structure.
Between 17,30 - 18,00 m, 19,00 - 19,35 m and 19,85 - 19,95 m, 21,10 - 21,40 m and 21,45 - 21,55 m, 23,85 - 24,00 m, 24,20 - 24,30 m, 25,65 - 26,10 m, 28,20 - 28,30 m and between 28,65 - 29,20 m are positions of pseudoconphorm orthoclas, natronorthoclas and quartz rich albite, muscovite/sericite and biotite bearing orthogneiss (metapegmatitic dikes).

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 8 (1A)

Between 20,30 - 29,70 m are several parallel zones each are biotite very rich (a regresiv metamorphism changed localy biotite to flogopite an to chlorite).
Between 12,00 - 12,45 m is a discordant zone of very soft fault's mylonitic matrix built mostly by chlorite, flogopite sericite, with few irregular fragments of quartz. Inclination of foliation of this mylonitic zone is 85 dgr. against to this trial hole's axis.
The same fault's mylotic zones are also between 4,40 - 4,80 m and 11,90 - 12,45 m, but there are much more fragments of fundamental matrix of side rocks. Between 16,40 - 17,00m was perheps the same mylonitic zone, but here was loss of drill-core.
The average core recovery of whole zone between 1,60 - 29,70 m is 90 % about.

29,70 - 61,75 m Bright grey to white-grey potash feldspar rich, albite, muscovite/sericite and biotite bearing orthogneiss with ropy-schistose structure and localy with pseudomorphic and oolitic and eyed structure (lens or rolled pebbles 2 - 10 mm at diameter).
Several zones of this rock has also a pell mell irregular cataclastic structure where joints was refilled by quartz mostly.
The averege inclination of an average foliation is 70 - 80 dgr. against to hole's axis, but localy changed between 50 and 60 dgr.
This rock was localy attacked by a metahydrothermal leacheng proces. A lot of small and biger, lensformet, solution caverns, max. 1 - 2 mm, up to 5 - 10 mm at diameter, folowing an average foliation always. That is possible to fine a white kaolin in those solution caverns.
Everywhere in fundamental matrix of this rock is possible to fine a lot of little thin flaks, lenses, slices of steel-grey hematite and some thin slices can be biger (0,1 - 0,5 mm up to 1 - 3 mm more seldom, very seldom up to 1 - 2 cm long).
Several zones of this orthogneiss are disharmonical foldet.
Between 31,75-32,00m, 33,25-33,30m, 33,40-33,45m, 36,90-37,00m, 41,50-41,75m, 42,20-42,25m, 43,00-43,15m, 46,55-46,57m, 46,85-46,88m, 47,10-48,75m, 50,45-51,70m, 57,75-57,95m, 58,40-58,90m, and 59,15-59,60m are zones of cornphorm or pseudocnphorm biotite

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 8 (1A)

rich (changed to flogipite localy) and clorite rich dark green grey or dark greenish grey paragneiss or greenschist (metamafic intrusion rock) with shistose or slaty structure. There are a lot of thin parallel stripes, beds and long thin lenses of quartz & albite matrix. Some zones of this greenschist type has irregular rubble breccie structure or a ropy structure. Those zones can be a fault's mylonite zones too. Those greenschist zones has created localy disharmonical folds or ptygmatic folds.
This greenschist beds was also attacked by a strong metahydrothermal leaching proces.
Between 35,55-35,75m and 41,75-41,90m are to pseudoconphorm positions of grey white quartz.
The average core recovery of rock-formation between 29,70-61,75 m is 90 % about.
Between 51,90-57,70 m is a zone with much more pinky coloured potash feldspar (orthoclas).
Between 54,80-55,05 m is position of discordant pink bright grey porphyroblastic metapegmatite with irregular, cataclastic porphyroblasts of orthoclas (microcline) and quartz. Here was created a lot of irregular solution caverns too.
At zone between 53,90 - 54,80m is localy present a very bright greenish-blue soft mineral at kaolinized fundamental matrix (talc).

The trial hole no. 8 (1A) was stoped at depth 61,75 m : pr. July 16th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 11th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 9 (3A)

00,00 - 09,60 m (147) - (3A)

Bright grey, potash feldspar rich, quartz, albite bearing and biotite bearing gneiss (paragneiss type), with irregular bedding and slaty, ropy, fluidial and eyed-oolitic structure. Average inclination of foliation (schistosity - pseudostratification) is 70 - 60 - - 75 dgr. against to this hole's axis. This rock-formation is localy foldet.
Biotite (also changed to Flogopite) and muscovite/sericite (little bit more seldom) are on pseudostratification planes mostly.
Several zones of this gneiss was attacked by a metahydrothermal leaching proces, which developed a lot of solution caitves, stretched along average schistosity always.
In several zones of this gneiss complex are a lot of small (1 - 5 mm wide, seldom biger) rolled pebbles or more angular pebbles and fragments built by potash feldspar or potash feldspar & quartz.

(113) - (6)

Between 0,00-0,10m, 0,50-0,55m, 0,90-0,95m, 2,30-2,55m, 3,60-3,65m, 5,15-5,25m and between 5,70-5,75m are pseudoconphorm positions of white grey (littli bit pinky coloured) to bright pinky grey, coarse grained orthogneis or metapegmatite (maybe metaaplite dikes), built by potash feldspar (anorthoclas and orthoclas), quartz and more seldom by albite, muscovite and biotite. There is possible to fine very small slices,short irregular stripes of hematite (very seldom). In those positions was created many irregular solution caverns (between 0,00-0,10m more then 1cm wide).

(180) - (8)

Between 7,30-7,40m and 7,95-8,10m are almost pseudoconphorm or pseudodiscordant positions of very dark grey or greenish very dark grey, biotite extremly rich (changeing localy to flogopite), epidote rich and albite and chlorite bearing greenish mica schist with ropy-schistose structure.

(187) - (4)

Between 8,10-9,60m is position of much more bright, pstash feldspar rich, bedding orthogneis (little bit more pinky coloured).

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 9 (3A)

Between 1,60-2,30m ic drill-core fractured (possible fault zone - little bit limonitized).
The average core recovery of this position, between 0,00-9,60m is 90 - 95 % about.

09,60 - 13,50 m (187) - (4)

Bright pinky grey to white pinky grey, fine grained, potash feldspar very rich, quartz rich and muscovite/sericite, more seldom biotite bearing orthogneiss, with parallel ropy - fluidial - slaty structure. Muscovite and little bit more seldom biotite are always on pseudostratification planes.
Some very small, microskopical slices or lenses of hematite are almost irregular distributed, stretched along average schistosity.
Some irregular distributed rolled pebbles, lensformed, or little bit more angular pebbles was almost built by potash feldspar or potash feldspar & quartz (they have more pinky colour - maybe pseudoporphyroblaster).
This orthogneiss was strongly attacked by a strong metahydrothermal leaching proces and this proces was created many solution caverns stretched along average schistosity (lensformed mostly : 2 - 5 mm wide and long, max. 1 - 2 cm).
The average inclination of schistosity (pseudostratification) is 75 - 85 dgr. against to this hole's axis.
The average core recovery of whole this position between 9,60-13,50m is 90 - 95 %.

13,50 - 13,70 m (113) - (6)

Bright pinky grey to white pinky grey, coarse grained potash feldspar very rich and quartz rich metapegmatite and metapegmatite rubble breccie with some irregular fragments of surounding rocks. Both borders of this metapegmatite-breccie are discordant.
Here was created some irregular solution caverns. In this breccie are some few irregular slices or stripes and small, microscopical lenses of hematite.
Core recovery of this position is 80 % about.

13,70 - 74,70 m (147) - (3A) and (170) - (2)

Grey to more dark grey, biotite rich, potash feldspar and quartz rich, albite, muscovite/sericite, epidote and little bit chlorite bearing gneiss (more paragneiss type), with a lot of small angular pebbles or fragments of

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 9 (3A)

potash feldspar and potash feldspar & quartz. This rock-formation has almost changeing parallel fluidial - ropy and eyed and oolitic structure (paragneiss with a lot of beds and slices of intermediar lapilli metatuff).
In this rock-complex was created a lot of solution caverns, more lensformed, stretched along average foliation. Size of this caverns chmgeing between 2 - 5 mm up to 1 - 3 cm. In those cavityes is kaoline and much more seldom limonite and chrysocolla(?) or theineite(?).
Average inclination of foliation (pseudostratification) is 70 - 80 dgr. against this hole's axis.

(170) - (2) Between 13,70-19,10m, 25,10-28,65m and also between 65,00-69,20m dominate zones of aglomeratic intermediar metatuff with a lot of mostly angular pebbles and fragments (average size 2 - 5 mm) and rolled pebbles (lensformed), built by potash feldspar and potash feldspar & quartz. Those pebbles or fragments was stretched along average schistosity.

(180) - (8) Between 14,10-14,20m (ptygmatic foldet) and between 15,90-16,15m, 25,30-25,35m, 31,75-31,90m, 34,30-34,35m, 62,90-63,75m, and between 69,20-69,80m are pseudoconform positions of dark grey and greenish dark grey greenish mica schist, biotite very rich, epidote and clorite and albite bearing (local biotite was changed to flogopite - by leaching regresiv activity). Those positions has mostly parallel ropy - fluidial and oolitic-eyed structure. Primary was maybe those positions metamaphic dikes or metamaphic-tuffs.

(147) - (3) Between 29,10-37,90m is pseudoconphorm position of grey biotite more rich gneiss (paragneiss type) with parallel schistose structure, flat foldet.

(147) - (3A) Between 32,00-47,50m is pseudoconform position of bright grey gneiss, strongly silicifed, potash feldspar very rich, with parallel bedding structure. Some few positions has a secondary, weak limonite cover. That is possible to fine irregular distributed microscopical grains of pyrite's cubes (in foliation planes).

(113) - (6) Between 39,15-39,20m, 43,40-43,65m, 43,90-44,10m, 44,15-44,30m, 55,50-55,80m, 56,10-56,15m (rubble breccie), 61,55-61,95m, 64,25-64,35m and 68,50-68,55m are pseudoconphorm or pseudodiscordant positions of white grey and little bit pinky white grey, potash feldspar

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 9 (3A)

rich and quartz bearing metapegmatite (coarse grained), localy with some irregular stripes and fragments of surroundind rocks. That is possible to fine some small irregular slices of hematite and many irregular solution caverns in those positions.
Between 23,30-24,70m has many solution cavityes kaolin inside and very thin cover of a chryzocolla(?) or theinite(?).

(113+161) (6+9) Between 43,85-44,35m, 56,00-56,20m, 61,25-61,35m, 68,50-68,65m, 69,70-69,80m and between 74,00-74,40m are pseudodiscordant positions of tectonic rubble breccie, always with refilled coarse grained metapegmatite (potash feldspar & quartz).
Between 31,80-31,90m, 32,50-33,15m, 40,25-40,50m, 43,00-43,50m, 45,00-45,30m, 53,30-54,80m and 56,00-56,85m are positions with very fractured core - maybe tectenic faults.
Average core recovery of this position between 13,70-74,70m is 90 % about.

74,70 - 136,00 m (171) - (1) Greenish grey to bright greenish grey, muscovite/sericite and biotite rich, quartz and potash feldspar bearing, albite bearing metaconglomerate, with parallel ropy-fluidial and eyed structure. Rolled pebbles was also lensformed or they are little bit more angular, stretched along schistosity. They was built by potash feldspar or potash feldspar & quartz (size changeing between 1 - 10 mm, max. up to 2 - 5 cm - more seldom).
Average inclination of foliation is between 60 - 80 dgr. against to this hole's axis.
Several zones of this rock-complex was attached by a strong metahydrothermal leaching proces, which was created a lot of solution caverns, almost irregular and lensformed and stretched along average foliation.

(170) - (2) Between 84,85-106,30m, 113,80-128,90m and 132,00-134,10m, and 135,50-135,90m are positions of more alterated, potash feldspar rich aglomerate-metatuff (intermediar), with much more aglomeratic fragments or pebbles and rolled pebbles too (average size changed between 0,5 - 1 cm, seldom up to 2 cm). In position between 84,85-106,30m was created by metahydrothermal leaching proces plenty irregular and lensformed solution caverns.

(113) - (6) Between 84,10-84,20m, 88,00-88,60m, 94,00-94,15m, 106,60-106,80m, 121,35-121,45m, and 135,90-136,00m are pseudoconphorm or pseudo-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 9 (3A)

discordant positions of white grey or little bit pinky white grey, coarse grained metapegmatite and metapegmatitic rubble breccie, with angular fragments of syrrounding rocks.

(187) - (4) Between 95,80-96,05m and 123,25-123,85m are pseudoconphorm positions of right pinky grey, fine grained orthogneiss, with parallel ropy-bedding structure, potash feldspar rich. In this rock are many diagonal or vertical fractures, refilled by metahydrothermal alteration (silicifed)

(180) - (8) Between 99,00-99,45m, 106,80-107,25 and between 107,60-108,75m are pseudoconphorm positions of darh greenish grey, biotite and epidote very rich, chlorite and albite bearing mica schist (perhaps primary some dikes of metamafic rock or metamafic tuff), wit perliti - oolitic, ropy structure.
Between 90,60-91,10m, 91,45-91,60m, 97,00-97,20m and 100,50-101,00m was core fractured and ca. 50 % was losed (maybe tectonic fault zones).
Average core recovery of whole position between 74,70-136,00m is 90 - 95 %.

The trial hole no. 9 (3A) was stoped at depth 136,00 m : pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 11th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 10 (3A)

00,00 - 02,10 m — Qurtery sediments - debris, debris cono, quary spalls and eluvial debris and eluvial placers too.

02,10 - 18,00 m — Bright grey to grey, biotite rich, potash feldspar and quartz rich and muscovite/sericite, albite and little bit chlorite bearing gneiss (paragneiss type), wuth parallel schistose, fluidial and ropy structure. Several zones of this position has much more higher contant of biotite, special between 2,10--2,30m, 4,90-5,25m, 5,65-6,35m, 6,70-7,50m. In several zones was created a lot of irregular, lensformed solution cavityes, stretched alond average foliation (size of those cavityes changed between 2 - 5 mm, but also up to 1 - 2 cm max.)
Average inclination of schistosity (pseudostratification) is between 70 - 80 dgr. against this hole's axis. Several zones was disharmonical foldet.

(161) - (9) — Between 2,85-3,00m, 5,45-5,65m, 10,00-10,15m, 10,30-10,70m and 11,00-11,15m are pseudoconphorme positions of biotite very rich mica schist, disharmonical foldet, with fragments of surroundin rocks (metapegmatite, orthogneiss atc.). This positions are perhaps rubble breccie zones.

(113) - (6) — Between 6,35-6,70m is discordant position of white and white grey metapegmatite (maybe a rubble breccie), with sericite/muscovite and with a lot of irregular solution caverns up to 1 - 2 cm wide.
Average core recovery of this position between 2,10-18,00m is 90 - 95 %.

18,00 - 25,25 m
(187) - (4) — White grey and bright grey, little bit pinky, almost fine grained, potash feldspar and also quartz rich, muscovite, biotite and little bit albite bearing orthogneiss (gneiss), with parallel bedding structure. Several thin beds of this rock-complex changed to more biotite

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 10 (3A)

rich paragneiss type, f.ex. between 18,85--18,90m, 19,75-20,05m and 20,35-20,40m.
Average inclination of foliation (schistosity) is 70 - 75 dgr. against this hole's axis.

(161) - (9) Between 21,20-21,25m and 22,50-22,70m are position of discordant biotite/flogopite rich, epidote,chlorite bearing mica schist (parheps metamylonite)
Solution cavityes was created in not so many zones of this position (lensformed - with kaoline cover).
Average core recovery of this position between 18,00-25,25m is between 95 - 100 %.

25,25 - 25,65 m Dark grey, biotite very rich, epidote, albite and chlorite and quartz bearing green mica

(180) - (8) schist, with parallel schistose, fluidial and ropy - perlitic - oolitic structure.
Average inclination of foliation (pseudostratification) is 70 - 75 dgr. against to this hole's axis.

(147) - (3) Between 25,40-25,45m and 25,50-25,60m are two pseudoconphorm positions of white grey, potash feldspar and quartz rich and biotite bearing gneiss.

25,65 - 49,55 m Bright grey, potash feldspar and quartz rich, biotite and albite bearing gneiss (maybe an

(147) (3A) intermediar metatuff), with parallel schistose and fluidial - ropy structure and in several zones also eyed strucrure. There are several small rolled pebbles and angular fragments (2 - 5 mm wide), built by potash feldspar or potash feldspar & quartz. Solution cavityes are not so many in this rock-complex and those are lensformed mostly and stretchd foliation.
Average inclination of schistosity changeing between 70 - 80 dgr. against to this hole's axis, but between 29,50-29,75m and 45,30--45,60m changeing between 30 - 20 - 0 - 40 -- 50 dgr. In the midle of those positions are knees of folds.

(161) - (9) Between 26,25-26,30m, 26,75-27,05m, and between 27,45-27,50m, 33,00-33,05m, 34,50-34,60m and 39,40-39,45m are always discordant positions of dark grey, biotite very rich, clorite, epidote and quartz and albite bearing metamylonite.

(180) - (8) Between 34,45-34,65m and 43,70-44,00m are two pseudoconphorm positions of dark grey, bioti-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 10 (3A)

te very rich and epidote rich, chlorite, albite bearing green mica schist (perhaps metamaphic dikes).

(161) - (9) Between 26,75-27,10m, 43,10-43,40m and between 46,85-47,05m are discordant positions of dark grey, biotite/flogopite rich, chlorite bearing rubble tectonic breccie, with irregular fragments of white grey metahydrothermal quartz (breccie - quartz).

(113) - (6) Between 30,45-31,05m, 32,90-33,00m, 36,50--37,05m, 37,25-37,40m, 38,40-38,50m, 39,50--39,65m, 41,10-41,20m, 42,75-43,10m, and between 43,65- 43,70m are pseudoconphorm positions of white grey and pinky white grey, coarse grained metapegmatite (locali more fine grained orthogneiss - metaaplite).

(147) - (3) Between 47,05-47,55m is conphorm position of grey to dark grey, biotite rich and potash feldspar, albite and quartz rich gneiss (paragneiss type).

Average core recovery of this position between 25,65-49,55m is 95 %.

49,55 - 58,50 m Grey and little bit more dark grey, biotite rich, quartz and potash feldspar rich and

(147) - (3) muscovite/sericite, chlorite and albite bearing mica schist gneiss (paragneiss type), with parallel schistose, fluidial, ropy and also oolitic and eyed structure. In this positions are many rolled pebbles and more angular pebbles/fragments (size changed between 0,5 - 2 - 5 mm). Those pebbles are mostly irregular distrebuted in fundamental matrix (inyermediar lapilli metatuff).

Average inclination of foliation is 70 dgr. against to this hole's axis.

This rock was very hard attacked by metahydrothermal leaching proces, which was created a lot of irregular and lensformed solutions caverns (size from 2 - 5 mm, max.up to 2 cm), stretched along average schistosity.

(113) - (6) Between 52,90-53,10m, 53,60-53,80m, 54,15--54,25m, 56,90-57,00m and 58,35-58,45m are pseudoconphorm positions of white grey and little bit pinky white grey, coarse grained, potash feldspar rich metapegmatite.

In this position are a lot of irregular solution caverns. That is possible to fine few irregular small slices, lenses and short stripes of hematite.

Between 50,55-51,30m, 53,50-54,20m, 54,50--54,60m and 55,20-55,30m is drill-core very

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 10 (3A)

strong fractured (perhaps fault zones).
Between 53,10-53,60m is rock very hard sericitized (perhaps metahydrothermal leaching).
Between 56,00-56,40m is position, which is strong disharmonical foldet.
Average core recovery of this position between 49,55-58,50m changed between 80 - 90 %.

58,50 - 61,75 m (147) - (3A) Bright grey, potash feldspar and quartz rich, biotite, muscovite/sericite and little bit albite bearing gneiss, with parallel schistose and fluidial and also eyed structure (maybe lapilly intermediar metatuff).
Average inclination of schistosity is 70 - 85 dgr. against this hole's axis, but between 58,50-58,80m changeing between ca.40 - 0 - 35 dgr.(in 58,65m is fold knee).

(113) - (6) Between 59,00-59,10m, 59,35-59,40m, 59,60--59,70m and 60,10-60,35m are pseudoconphorm positions of white gey and pinky white grey, potash feldspar and quartz rich metapegmatite (and metapegmatite rubble breccie).

(161+113) (9+6) Between 61,20-61,75m is this position of pegmatitic rubble breccie stron sericitized.
Average core recovery of this position between 58,50-61,75m is 90 %.

61,75 - 75,60 m (171) - (1) bright greenish grey to greenish grey, sericite/muscovite, biotite, chlorite rich and quartz and albite and potash feldspar rich gneissic mica schist conglomerate, with parallel ropy and eyed structure. A lot of rolled pebbles and some more angular pebbles/fragments was localy regular distributed in fundamental matrix. They was built by potash feldspar and also by potash feldspar & quartz. Several zones of this rock-complex was attacked by a strong metahydrothermal proces which was developed a lot of irregular and more lensformed solution caverns, stretched along average schistosity (size of cavityes changeing between 2 - 5 mm, but up to 2 cm max.)
Average inclinatuon of schistosity is 80 dgr against to this hole's axis.

(107) - (7) Between 62,30-62,70m is discordant position of white or white grey quartz (maybe matahydrothermal), with many diagonal joints refilled by a second generation of quartz (silicitized alterated).

(161+107) Between 70,40-7100m, 72,60-72,65m and bet-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 10 (3A)

(9+7) ween 75,00-75,10m are discordant positions of quartz - tectonic rubble breccie (almost crushed core).
Average core recovery of whole this position between 61,75-75,60m is 90 % about.

The trial hole no. 10 (3A) was stoped at depth ~~120,00~~ 75.6 m :
pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 13th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 11 (3A)

00,00 - 02,40 m Quarternary sediments - debris, debris (solifluction) cone, quary spalls and eluvial debris and eluvial placers too.

02,40 - 39,90 m Bright pinky grey to white pinky grey, mostly fine grained, potash feldspar (orthoclas and
(187) - (4) anortoclas) very rich, quartz rich, muscovite /sericite bearing, more seldom biotite , albite bearing orthogneiss, with parallel fluidial and ropy structure. Several zones has little bit more biotite on pseudostratification planes. Those zones has much more clear bedding structure. Between 5,35-7,20m is biotite more rich position, with eyed - ropy structure (perhaps an old shear thrust or an intermediar lapilli metatuff). In several zones was created some irregular, but lensformed solution caverns by a metahydrothermal leaching proces. Those cavityes stretched along schstosity or joints. In orthogneiss of more coarse grained type was developed a lot of vertical or diagonal joints refilled by younger quartz (silicifed alteration proces). Average inclination of foliation is 80 dgr. against this hole 's axis.

(126) - (5) Between 17,30-24,20m is concordant position of a much more coarse grained orthogneiss (orthoclas rich).

(170) - (2) Between 3,30-5,35m, 7,20-17,30m, 24,20-31,00m and 32,00-35,00m are positions with a lot of rolled pebbles and little bit more angular pebbles/fragments, built by potash feldspar and patash feldspar & quartz (size 3 - 5 mm, max. up to 1 - 1,5 cm).

(147) - (3A) Between 8,25-8,55m, 10,05-10,25m, 10,50--10,80m, 12,40-12,75m, 13,10-13,40m, 15,70--15,90m, 16,70-16,85m, 17,10-17,25m, 20,40--20,70m, 30,20-30,45m and 39,70-39,75m are conphorm positions with recrystalized biotite (almost vertical clices of biotite against to this schistosity).
Average core recovery of this position between 2,40-39,90m is 95 % about.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 11 (3A)

39,90 - 87,20 m (147) - (3A) Bright grey, potash feldspar (anorthoclas) rich and quartz, biotite, muscovite/sericite, little bit more seldom albite bearing gneiss (maybe acid and intermediar metatuff), with parallel fluidial and ropy structure, but in several zones also with eyed structure. In those conphorm positions are many rolled, lensformed pebbles or little bit more angular pebbles/fragments built by potash feldspar or potash feldspar & quartz (2 - 5 mm wide, seldom up to 1 - 2 cm wide)
Several parallel and conphorm zones has much more higher intent of biotite. Such zones has parallel schistose - ropy structure. Small slices of biotite (max. 1 - 1,5 mm wide) was in those zones recrystalized almost vertical against to average schistosity (progresiv metamorphism).
Solution cavitye, mostly irregular, but always lensformed, stretched along average foliation was created in zones with higher intent of potash feldspar or albite. Solution caverns are 2 - 10 mm long and 2 - 5 mm thick and seldom more then 1 - 2 cm wide.
In few zones are irregular distributed rolled pebbles or little bit angular pebbles/fragments (2 - 6 mm wide, seldom 1 - 1,5 cm wide) built by potash feldspar and potash feldspar & quartz.
Average inclination of schistosity (pseudosratification) changeing between 70 - 85 dgr. against to this hole's axis. Between 53,20--54,05m and 54,15-54,20m was created very thin secondary cover of limonite.

(180) - (8) Between 41,95-42,15m, 56,10-56,20m, 58,55--58,80m, 65,50-65,55m, 66,05-66,75m, 68,85--68,95m, 69,25-69,30m, 69,40-69,50m and between 84,85-84,90m are pseudoconphorm positions of dark or very dark greenish grey, biotite very rich, epidote, chlorite, flogopite, sericite, albite and little bit quartz bearing mica schist, with parallel schistose and perlitic - oolitic structure (perhaps primary metamaphic tuff and flow dikes).

(113) - (6) Between 41,50-41,60m, 48,55-48,70m, 50,45--50,65m, 50,85-50,95m, 56,00-56,10m, 77,10--77,25m, 77,45-77,55m, 77,80-77,85m, 78,55--78,60m, 82,40-82,50m and 83,10-83,20m are pseudoconphorm or pseudodiscordant positions of white pinky grey or white orange-pinky grey, fine grained or coarse grained, potash feldspar very rich (orthoclas, natronorthoclas) and quartz rich metapegmatite (metaapli-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 11 (3A)

te ? dikes). In those pegmatite positions are a lot of irregular solution caverns (after kaolinization), max. 1 - 1,5 cm wide. In pegmatite are several irregular small slices or thin stripes of hematite (max 1 cm long and 1 - 3 mm thick).

(161) - (9) Between 47,60-47,95m, 48,00-48,10m and 48,30--48,45m are discordant positions very dark grey, biotite very rich, flogopite, chlorite, little bit biotite bearing mica schist, with pseudo-oolitic and fluidial structure and with several included small lensformed fragments of potash feldspar/albite and quartz matrix. Those positions was perhaps primary mylonite or sheer thrust zones.
Average core recovery of this position between 39,90-87,20m is between 90 - 95 %.

87,20 - 100,05 m Grey and also more dark grey, potash feldspar and quartz rich, biotite, muscovite/sericite

(147) - (3) rich, albite and little bit chlorite bearing and seldom also epidote bearing gneiss (paragneis type), with parallel schistose - fluidial and ropy structure, combine with eyed structure in several zones too (maybe intermediar metatuff and intermediar lapilli metatuff).
Several zones of this rock-complex was attacked by a strong metahydrothermal leaching proces, which was created many irregular, but almost lensformed solution caverns, stretched along average schistosity or along joints.

(113) - (6) Between 90,65-90,70m and 98,55-98,65m are pseudoconphorm positions of white grey, fine grained metapegmatite (metaaplite ?), potash feldspar very rich.

(161) - (9) Between 89,80-89,90m, 91,00-91,10m, 91,60--91,65m, 92,45-92,50m and 96,00-96,10m are discordant positions of biotite very rich, flogopite, chlorite bearing mica schist (metamylonite or shear thrust zones).
Between 96,40-96,95m is discordant position of biotite very rich tectonic rubble breccie.

(107) - (7) Between 96,35-96,40m is discordant position of white grey metahydrothermal quartz (vein).

(180) - (8) Between 92,10-92,15m and 95,20-95,30m are pseudoconphorm positions of dark greenish grey, biotite very rich, chlorite, sericite, flogopite, epidote bearing and quartz,albite bearing mica schist, with parallel fluidial, ropy and oolitic structure (primary perhaps

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 11 (3A)

metamaphic dikes or positions of metamaphic tuffes).
Average core recovery of this position between 87,20-100,05m is 95 % about.

100,05 - 100,25 m (161) - (9) Very dark grey, biotite very rich, clorite, epidote bearing mica schist(maybe metamylonite or shear thrust zone), with lensformed angular fragments (pebbles) of surrounding rocks and quartz (quartz rubble breccie zone).

100,25 - 120,50 m (171) - (1) Grey and little bit greenish grey, potash feldspar and quartz rich, muscovite/sericite, biotite and little bit chlorite bearing gneissic mica schist conglomerate, with parallel fluidial - ropy and eyed structure. In this rock are many rolled pebbles and also little bit more angular pebbles/fragments, 2 - 5 mm wide, more seldom 1 - 2 cm wide or more. Those pebbles was mostly built by potash feldspar, but also by potash feldspar & quartz. Few pebbles has little bit more white pinky colour. In this rock-formation was not created so many irregular, but mostly lensformed solution caverns, stretched almost along average schistosity. Those solution caverns are not big (2 - 10 mm long, 1 - 5 mm thick, more seldom 1 - 2 cm long and up to 1 cm thick). Average inclination of schistosity (foliation or pseudostratification) changeing between 80 and 85 dgr. against to this hole's axis, but also between 70 - 75 dgr.

(113) - (6) Between 106,25-106,30m, 106,60-106,85m and 106,90-106,95m, 107,35-107,45m, 107,65-107,80 107,85-107,90m, 113,30-113,35m, 114,30-114,40 and 115,15-115,25m are pseudoconphorm positions of white grey or white, potash feldspar very rich and quartz bearing metapegmatite or metaaplite (? dikes or migmatites).

(180) - (8) Between 109,15-109,50m, 109,60-109,85m, and 110,95-111,45m, 115,40-115,45m, 115,75-115,80 and 119,50-119,90m are pseudoconphorm positions of very dark greenish grey and greenish grey, biotite extrem rich, epidote and chlorite bearing and albite (potash feldspar) bearing mica schist, with fluidial - ropy and perlitic - oolitic structure (maybe metamaphic dikes or positions of metamaphic tuffes, or lapilli tuffes). This positions was localy foldet. Between 109,60-109,90m and between

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 11 (3A)

110,50-110,80m are knees of two folds.
Between 117,40-117,60m was rock very stronly fractured.
Average core recovery of this position between 100,25-120,50m is 95 % about.

120,50 - 156,35 m (171+170) (1+2) (113) - (6) Bright grey, potash feldspar (anorthoclas) very rich and quartz rich, biotite, muscovite /sericite, epidote and also albite bearing eyed gneiss (perhaps intermediar lapilli metatuff), with eyed - fluidial and ropy structure. This rock-complex has many, almost regular distributed rolled pebbles, more angular pebbles/fragments,built almost by potash feldspar, but also by potash feldspar with quartz. Size of those pebbles changeing between 2 - 10 mm (wide), more seldom up to 2 cm or little bit more. In this rock-complex are only few very thin and small, lensformed solution caverns. This rock was not attacked so stron by a metahydrothermal leaching proces. Between 143,35-143,50m, 143,55-143,90m and 144,70-144,85m, 146,90-147,15m and between 147,30-147,65m are pseudoconphorm positions of white grey, potash feldspar very rich and quartz bearing metapegmatite (metaaplite ?). In those positions was created some irregular solution caverns.
Average inclination of schistosity of this rock-formation is 80 - 85 dgr. against to this hole's axis.
Average core recovery of this position between 120,50-156,35m is near 100 %.

The trial hole no. 11 (3A) was stoped at depth 156,35 m : pr. August 13th 1994.

With the best wishes

Miloslav Henrich Motyš
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 11th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 12 (3A)

00,00 - 04,40 m	Quarternary sediments - debris, debris cone, quary spalls and eluvial debris and eluvial placers too.
04,40 - 29,45 m (147) - (3)	Grey and also bright grey, quartz and potash feldspar rich, biotite rich, muscovite/sericite and little bit chlorite bearing gneiss (paragneiss type), with several parallel zones of aglomeratic/conglomeratic intermediar metatuff(?). Those zones has many irregular distributed rolled pebbles or more angular fragments (max size 0,5 - 1 cm), built by white grey potash feldspar or potash feldspar & qurtz (maybe primary intermediar lapilli tuff). This position of gneiss or gneissic mica schist has parallel fluidial, ropy, and eyed structure. In this rock-complex are also several parallel beds of dark grey, biotite more rich gneissic mica schist, with an irregular, but parallel ropy - oolitic structure. Small, white grey, lensformed fragments or pebbles was almost regulary distributed.
(170+147) (2+3)	Those biotite rich gneissic mica schist positions (primary intermediar lapilli metatuff) are between 6,80-6,90m, 7,25-7,30m, 9,05--9,30m, 10,25-10,30m, 15,65-15,80m, 16,10--16,15m, 16,20-16,25m, 16,50-16,55m, 16,90--16,95m, 17,50-17,55m, 17,90-17,95m, 21,15--21,35m, 23,90-23,95m, 25,65-25,85m, 27,55--27,90m, 28,40-28,45m, 28,80-28,85m and between 28,90-28,95m. There was only several zones of this rock-complex, which was attacked by metahydrothermal leaching proces. There was created a lots irregular, but always lensformed solution caverns, stretched along foliation (1 - 5 mm, seldom up to 1 - 2 cm wide). Average inclination of schistosity (pseudo-stratification) changeing between 60 - 80dgr. against to this hole's axis, but localy between 40 - 50 dgr. There is this rock disharmonical foldet.
(147) - (3A)	Between 23,95-24,60m, 24,95-25,65m, 26,65-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 12 (3A)

-27,55m and 27,90-28,15m are positions of much more bright grey, potash feldspar rich gneis (primary maybe acid metatuff), with a parallel bedding structure.
Between 9,05-14,50m was drill-core strongly fractured (perhaps a fault zone).
Average core recovery of this position between 4,40-29,45m is 90 % about.

29,45 - 35,25 m — Bright grey, to little bit pinky white grey, potash feldspar rich, quartz, muscovite and biotite bearing orthogneiss with parallel bedding and ropy structure (more acid metatuff), with irregular distributed lensformed pebbles or little bit angular pebbles (max. 1 - 2 cm wide), built by potash feldspar always. That is possible to fine rare microscopical cubes of pyrite (always in foliation planes) and very small slices or lenses of hematite.
Several zones of this rock-complex was attacked by a strong metahydrothermal leaching proces, which was created a lot of irregular solution cavityes (lensformed), stretched along average foliation mostly (2 - 5 mm, max. up to 1 - 2 - 3 cm wide). Inside cavityes are kaoline covers, but very seldom is possible to fine thin covers of limonite and rare of chrysocolla(?) or teineite(?).

(180) - (8) — Between 31,65-31,75m is pseudodiscordant position of biotite very rich, epidote, chlorite and albite bearing greenish mica schist (perhaps dike of metemaphic rock or position of metamaphick lapilli tuff), with parallel fluidial - ropy and oolitic structure.

(113) - (6) — Between 34,25-34,35m and 34,80-35,00m are pseudodiscordant positions of white, little bit pinky grey, coarse grained, potash feldspar and quartz rich metapegmatite and metapegmatitic rubble breccie.
Average core recovery of this position between 29,45-35,25m is 95 % about.

35,25 - 35,80 m

(161) - (9) — Dark grey to black grey, biotite very rich, flogopite, sericite, chlorite and little bit epidote bearing mica schist, with a parallel schistose - ropy structure (maybe metamylonite zone). Borders of this position are discordant.
Average inclination of foliation is 60 - 70 dgr. against to this hole's axis.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 12 (3A)

Average core recovery of this position is 75 % about.

35,80 - 101,45 m (171) - (1) Bright greenish grey, to bright grey, muscovite/sericite, biotite and little bit chlorite bearing, quartz, potash feldspar and albite bearing gneissic mica schist and gneissic mica schist conglomerate complex, with parallel fluidial - ropy - eyed structure.
Average inclination of foliation (pseudostratification) changeing between 70 - 80 dgr. against this hole's axis.
Rolled or lensformed pebbles and also angular pebbles or fragments (2 - 10 mm wide, max. up to 2 - 3 cm wide) was stretched along schistosity. Those pebbles was built by potash feldspar and potash feldspar & quartz (localy little bit more pinky coloured - orthoclas).
Several zones of this rock-complex was attacked by a strong metahydrothermal leaching proces, which created a lot of irregular or lensformed solution cavityes, stretched along average foliation almost.

(180) - (8) Between 42,00-42,20m, 43,40-43,60m, 44,00--44,05m, 44,50-44,60m, 46,10-46,20m, 52,30--52,35m, 56,30-56,50m, 61,30-61,60m, 61,90--61,95m, 62,05-62,10m, 52,15-62,20m, 62,30--62,40m, 74,70-75,60m, 78,65-78,80m, 99,40--99,90m, 100,05-100,30m and 100,45-100,90m are conphorm or pseudoconphorm positions of very dark greenish grey or dark grey, biotite very rich, epidote, chlorite and albite and little bit quartz bearing mica schist or more greenschist, with parallel fluidial - ropy and oolitisk - perlitisk structure (maybe a lapilli metamaphic tuff or metamaphic dikes).

(147) - (3) Between 70,30-72,00m and 73,70-74,70m are pseudoconphorm positions of greenish grey, muscovite/sericite, biotite rich and chlorite bearing gneissic mica schist, with parallel schistose structure, always strong disharmonical foldet.
Only few zones was attached by a strong metahydrothermal leaching proces, which created many irregular, but mostly lensformed solution caverns, stretched along schistosity, f. ex. special between 55,00-73,50m.

(171) - (1) Between 80,20-94,00m is pseudoconphorm position of little bit greenish grey, typical metaconglomerate, with a lot of rolled pebbles and also some more angular pebbles or fragments, stretched along foliation. Those pebb-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 12 (3A)

les was built by potash feldspar (several of them has little bit more pinky colour) and potash feldspar & quartz. Sise of those pebbles changeing between 0,5 - 1 cm, seldom up to 2 cm or more.
Average inclination of foliation (pseudostratification changed between 70 - 85 dgr. against to this hole's axis, but between 74,70--79,60m 30 - 45 dgr.

(113) - (6) Between 36,70-36,80m, 39,65-39,70m, 42,40--42,90m, 43,30-43,40m, 56,90-57,10m, 57,20--57,25m, 67,75-67,90m, 80,00-80,20m, 81,50--81,60m, 88,30-88,65m, 89,10-89,25m, 92,50--92,55m, 95,45-95,50m, 95,60-95,70m, 98.85--98,90m, 98,95-100,05m and 100,30-100,45m are pseudodiscordant or pseudoconphorm positions of white grey or white pinky grey, coarse grained or fine grained, potash feldspar rich and quartz rich metapegmatite (or metaaplite intrusions and dikes). In some places was created irregular cavityes. That is possible to fine irregular small slices or stripes or thin lenses of hematite.

(107) - (7) Between 64,50-65,00m, 75,60-75,30m, 77,25--77,45m and 79,60-80,00m are discordant positions of white grey metahydrothermal quartz or boudinage quartz or quartz-rubble breccie, with few fragments of surrounding rocks (almost fractured core).
Average core recovery of this position between 35,80-101,45m is between 90 - 95 %.

101,45 - 114,30 m White grey, potash feldspar and quartz rich muscovite/sericite and biotite bearing, fine grained orthogneiss with parallel bedding and fluidial structure. Several zones has recrystalized small biotite slices vertical against to average foliation (size is max.1 - 1,5mm). In only few zones was created lensformed and irregular solution cavityes. Seldom is possible to fine few rolled pebbles in fundamental matrix (max. size 1 - 2 cm), built almost by potash feldspar (primary perhaps acid and intermediar lapilli tuff).
(187+147)
(4+3A)
Average inclination of foliation is 7o dgr. against to this hole's axis.
Average core recovery of this position between 101,45-114,30m is 95 - 100 % about.

114,30 - 149,55 m Greenis bright grey, muscovite/sericite and clorite, biotite bearing, quartz, albite and

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 12 (3A)

(171) - (1) potash feldspar bearing gneissic mica schist metaconglomerate, with many rolled pebbles or little bit more angular pebbles/fragments, stretched along foliation, Those pebbles was built by potash feldspar and also by potash feldspar & quartz. Size of those pebbles are between 0,2 - 1 cm, seldom max. up to 2 cm or more. In this rock-complex was not created so much solution caverns by a metahydrothermal leaching proces.
Average inclination of schistosity (pseudo-stratification) is between 80 - 85 dgr. against to this hole's axis.
Between 114,50-121,60m was extremly many solution caverns, almost irregular lensformed, stretched along foliation.

(113) - (6) Between 122,65-122,75m is pseudoconphorm position of white grey metapegmatite (metaaplite ?).

(107) - (7) Between 126,55-126,85m is discordant position of white grey quartz (metahydrothermal or boudinage). Core is fractured in this position.
Between 117,70-118,30m, 127,55-127,80m and between 143,25-144,00m, 145,20-145,30m and between 146,10-146,80m and 147,80-149,55m are zones where core was strongly fractured. Between 147,80-149,55m is drill-core losed (maybe fault zones).
Average core recovery of position between 114,30-149,55m is between 80 - 90 % about.

The trial hole no. 12 (3A) was stoped at depth 149,55 m : pr. August 11th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 16th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 13 (6)

00,00 - 04,50 m — Qurternary sediments - debris, debris cone, quary spalls and eluvial debris and eluvial placers too.

04,50 - 10,30 m (147) - (3) — Grey, quartz, potash feldspar and albite bearing, biotite rich, muscovite/sericite bearing gneiss, with parallel schistose, fluidial, ropy structure, but between 5,00-10,00m combined with eyed structure (paragneiss type and intermediar lapilly metatuff). Several zones are little bit more bright grey, becau-they has higher potash feldspar intent in a fundamental matrix. In zone between 5,00-10m are many rolled pebbles and little bit more angular pebbles or fragments, also lensformed and stretched along average schistosity. Tho-se pebbles was built by potash feldspar or potash feldspar & quartz. Size of those pebb-les is not biger then 1 cm. In this rock was created not so much solution caverns by a me-tahydrothermal leaching rpoces. Such cavityes are mostly lensformed, stretched along avera-ge schistosity or joints (max. size of cavi-tyes is ca. 1 cm long and 2 - 5 mm long).
Average inclination of schistosity (pseudo-stratification) changeing between 45 - 40 and 50 dgr. against this hole's axis.
Several zones of this position has trace of a weathering proces (with little bit limonite covers).
Between 5,35-5,60m, 6,00-6,60m and between 7,00-8,70m are zones with very strong fractu-red rock (drill-core).
Average recovery of this position between 4,50-10,30m is ca. 85 - 90 %.

10,30 - 44,15 m (147) - (3A) — Very bright grey, localy olso little bit pin-ky bright grey, pøtash feldspar rich and also quartz rich, biotite and muscivite/sericite bearing gneiss (mostly an orthogneiss typy), with parallel bedding structure, with several transition beds of ropy and fluidial structu-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 13 (6)

rer. There are higher intent of biotite. Several zones of this rock was weakly only attacked by metahydrothermal leaching proces, which was created not so many lensformed and irregular solution caverns (average size is 2 - 5 mm, max. up to 1 - 1,5 cm), always stretched along schistosity.
Average inclination of schistosity (pseudostratification) is between 40 - 45 gdr. against this hole's axis.

(180) - (8) Between 14,05-14,15m, 15,70-15,80m, 19,45--19,50m, 19,55-19,65m, 20,45-20,50m, 25,40--25,45m and 26,20-26,35m are pseudoconphorm positions of dark grey to greenish dark grey biotite very rich, epidote, chlorite and also quartz and albite bearing mica schist, or greenschist, with a perlitic - oolitic fluidial parallel structure (maybe metamaphic dikes or positions of maphic metatuff).

(107) - (7) Between 11,20-11,30m and 16,55-16,60m are discordant positions of white and white grey quartz (metahydrothermal).

(113) - (6) Between 11,75-11,90m, 11,95-12,15m, 16,00--16,05m and 16,15-16,25m are pseudoconphorm or pseudodiscordant positions of white and white grey, coarse grained and fine grained, potash feldspar very rich metepegmatite (metaaplite).
Between 22,00-22,65m, 27,00-28,70m, 31,50--32,30m, 33,00-33,70m, 34,20-34,60m, 35,00--35,70m, 36,15-36,70m, 36,90-37,70m, 39,00--39,15m, 39,70-39,80m, 40,00-40,50m, 43,00--43,10m and 43,60-43,90m are strong fractured positions, localy with thin covers of limonite (maybe fractured fault zones).

(161) - (9) Between 44,00-44,05 is almost discodant position of biotite/flogopite very rich, epidote, chlorite bearing mica schist, with ropy and fluidial structure (perhaps metamylonite).
Average core recovery of this position between 10,30-44,15m is 80 % about.

44,15 - 60,30 m Greenis grey to bright greenish grey, quartz, albite and potash feldspar bearing, muscovite or sericite and biotite and chlorite bearing gneissic mica schist to mica schist gneiss, with parallel schistose and ropy - fluidial structure. In this position are several passages to more biotite rich gneissic mica schist, with perlitic, oolitic and eyed structure. In this rock-complex are many zones, which was attacked by a strong metahydrother-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 13 (6)

mal proces. There was created a lot of irregular solutions cavitye, mostly lensformed, stretched along average schistosity (2 - 5 mm long, 1 - 5 mm thick, max. up to 1 - 2 cm long and 1 cm thick).
In several zones f.ex. between 49,00-50,95m and 51,90-52,30m are localy very thin covers of limonite and little bit epidote too.
Average inclination of schistosity (stratification) is 40 - 45 dgr. against to this hole's axis.

(113) - (6) Between 50,95-51,20m, 53,35-55,20m, 57,50--57,60m, 58,55-58,65m and 58,70-58,80m are pseudocnphorm or pseudodiscordant positions of white grey, coarse grained or fine grained metapegmatite (metaaplite dikes), quartz and potash feldspar rich. In those positions was created many irregular solution cavitye (kaolinized - leached out), max. 1 - 1,5 cm wide.

(161) - (9) Between 46,95-48,00m and 55,20-55,25m are discordant positions of very dark greenis grey, biotite very rich, flogopite, chlorite and little bit epidote, quartz and albite bearing mica schist (metamylonite), with fluidial and ropy structure. There are some irregular fragments of quartz or surrounding rock (max.size 0,5 - 1 cm). Inclination of schistosity in this position changeing between 10 - 30 dgr. against to this hole's axis.
Average core recovery of this position between 44,15-60,30m is 90 % about.

60,30 - 77,90 m (170) - (2) Grey and little bit more dark grey, biotite rich, muscovite/sericite and clorite bearing, potash feldspar, albite and quartz bearing mica schist gneiss or gneissic mica schist, with a lot of little bit more angular and also rolled pebbles (2 - 5 mm wide, max. up to 1 cm wide), built by potash feldspar and also by potash feldspar & quartz. This rock has almost parallel fluidial - ropy - eyed structure. There are not so many zones with solution cavitye, created by metahydrothermal leaching proces in this rock-complex.
Several zones of this rock-complex (maybe aglomeratic, intermediar metatuff) are much more biotite rich, f.ex. between 66,00-66,20 and 68,05-68,20m, 68,35-68,60m and between 68,90-69,05m and 71,65-71,70m.
Average inclination of schistosity (pseudostratification) changeing between 40 - 30 -

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 13 (6)

- 45 dgr. against to this hole's axis.

(107) - (7) Between 61,50-61,55m, 61,60-62,10m, 62,30--62,35m, 64,75-64,85m, 67,75-67,90m, 69,80--70,10m, 71,30-71,55m, 73,80-74,00m, 75,05--75,10m and 75,30-75,80m are pseudodiscordant positions of white or white grey metahydrothermal quartz or quartz - rubble breccie, with some irregular inclusions of potash feldspar (with irregular solution cavityes) or surrounding rock.

(113) - (6) Between 73,10-73,25m, 74,45-74,60m and between 74,70-74,80m are pseudoconphorm positions of whitw grey or white, potash feldspar very rich and quartz rich metapegmatite (metaaplite - dikes), with many irregular solution caverns (max. size is 1 - 1,5 cm).
Between 60,50-63,00m, 72,50-73,10m and between 74,60-77,90m are zones of very stron fractured rock (perhaps neofault zones).
Average core recovery of this position between 60,30-77,90m is 90 - 95 %.

The trial hole no. 13 (6) was stoped at depth 77,90 m : pr. August 16th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 17th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 14 (6)

00,00 - 03,00 m Quarternary sediments - debris, debris cone, quary spalls and eluvial debris and eluvial placers too.

03,00 - 17,00 m (171) - (1) Grey, biotite rich, potash feldspar, albite, quartz rich, muscovite/sericite and little bit chlorite bearing gneissic mica schist aglomerate (maybe intermediar lapilli meta-tuff), with parallel fluidial - ropy - eyed structure, with a lot of, regulary distributed rolled and little bit more angular pebbles (fragments ?). Those pebbles was mostly built by potash feldspar, but some of them by potash feldspar & quartz. They was almost stretched along average schistosity (average sise of pebbles is 2 - 5 mm, seldom max.up to 1 cm). In this rock-complex was created not so many slution caverns, by a metahydrothermal leaching proces. Such cavityes are irregular, lensformed and stretched along average schistosity (max. 1 - 1,5 cm long and 0,5 - 1 cm thick). A weak weathering was penetrated to ca. 7,00m (depth). In this zone near surface are sveral very thin covers of limonite. Between 14,30-17,00m is rock more bright, because intent of potash feldspar in a fundamental matrix is more higher and potash feldspar pebbles are biger (more lensformed, 1 - 2 cm wide).
Average inclination of schistosity (pseudo-stratification) changeing between 40-45 dgr. and later between 60-70 dgr. against to this hole's axis.
Averagr core recovery of this position between 3,00-17,00m is between 90 - 95 %.

The trial hole no. 14 (3A) was stoped at depth 17,00 m : pr. August 17th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 17th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 15 (6)

00,00 - 01,55 m — Quarternary sediments -debris, debris cone, quary spalls and eluvial debris and eluvial placers.

01,55 - 03,80 m — Bright grey, with little bit more orange - pink colouring, potash feldspar rich, quartz and albite bearing, muscovite/sericite and biotite bearing gneiss/orthogneiss, with parallel bedding, schistose structure. In few zones only are not many rolled pebbles, mostly lensformed, stretched along scistosity, built by potash feldspar (max. 0,5 - 1 cm wide). In this position was not created so much irregular and lensformed solution cavityes. Some more solution caverns are between 3,50-3,80m.
Average inclination of foliation (pseudostratification) is 35 - 40 dgr. against to this hole's axis.

(147+187) (3+4)

(147) - (3A) — Between 2,95-3,05m and 3,10-3,35m are two zones, conphorm, which has much more higher intent of biotite (paragneiss type ?).
Average core recovery of this position between 1,55-3,80m is 95 % about.

03,80 - 49,50 m — Grey and little bit more bright grey, biotite rich, potash feldspar, quartz rich and muscovite/sericite and albite bearing gneissic mica schist aglomerate (perhaps intermediar lapilli metatuff), with a lot of little bit angular pebbles and rolled pebbles, built by potash feldspar mostly and by potash feldspar & quartz (average size 2 - 5 mm, max. up to 1 cm).
In this rock-complex are several zones where was created a lot of irregular, but mostly lensformed solution caverns, by a metahydrothermal leaching proces (2 - 5 mm, max. 20 mm long and 2 - 15 mm thick).
Average inclination of schistosity (pseudostratification) changeing from 35 - 40 dgr., up to 70 - 75 dgr. against to this hole's

(170) - (2)

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 15 (6)

axis.

(107) - (7) Between 10,95-11,20m and 11,80-12,05m are discordant positions of white and white grey metahydrothermal quartz (veins).

(113) - (6) Between 12,20-12,30m, 14,15-14,25m, 14,40--14,50m, 15,00-15,05m, 15,20-15,25m, 31,20--31,30m, 33,60-33,70m, 33,90-34,00m, 35,00--35,05m, 39,20-39,25m and 45,20-45,50m(?) are pseudoconphorm or pseudodiscordant positions of white, mostly fine grained, but also coarse grained, potash feldspar rich and quartz bearing metapegmatite (metaaplite - dikes), with a lot of irregular solutions caverns (up to 1,5 cm wide).

(187) - (4) Between 22,00-25,90m is almost conphorm position of white grey (little bit orange - pinky coloured), potash feldspar very rich, quartz rich, muscovite/sericite and biotite bearing orthogneis (fine grained), with parallel bedding and also ropy - fluidial and schistose structure. In this position was created a lot of irregular and lensformed solution caverns, stretched along schistosity (2 - 5 mm thick and 5 - 10 mm long, max. up to 1 - 1,5 cm thick and 2 - 3cm long). Between 13,50-14,10m, 15,05-15,20m, 21,00--22,00m, 25,90-26,00m, 28,80-35,35m, 37,00--37,25m and 38,00-49,50m are zones of this rock-complex, which was extremly strong sericitized and kaolinized and disintegrated. Average core recovery of position between 3,80-28,80m is 90 % about, but core recovery between 28,80-49,50m is 57 % only (drill-core was losed between 39,00-47,90m).

The trial hole no. 15 (3A) was stoped at depth 49,50 m : pr. August 17th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist

Milosh Henrik Motys
Sildrevegen 11
7340 Oppdal
Tlf.priv. : 72 42 21 49

Oppdal, August 15th 1994

CONSOLIDATED LOGAN MINES LTD.
co/GEOLOG EGIL LIVGARD, P.ENG.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 16 (7A)

00,00 - 03,00 m Quarternary sediments - debris, debris (solifluction) cone, quary spalls and eluvial debris and eluvial placers too.

03,00 - 19,00 m Grey and bright grey, biotite rich and quartz and potash feldspar, albite, muscovite/sericite and little bit chlorite bearing gneissic mica schist conglomerate or metaaglomerate. in this rock-complex are a lot of rolled pebbles, little bit more angular pebbles and angular fragments, built by potash feldspar and by potash feldspar & quartz (size of those pebbles changeing between 2 - 5 mm, more seldom up to 1 cm). Those pebbles was stretched along average schistosity almost. This rock-complex has parallel schistose, ropy or fluidial eyed structure. Several zones of this complex has more higher intent of biotite and little bit more chlorite too. Such zones has always pseudoconcordant borders to surroundind rock-complexes. Such zones way always disharmonical and isoclinal foldet, f. ex. between 5,50-5,60m, 5,80-5,85m, 6,70--6,75m, 7,00-7,05m, 9,70-10,00m, 10,30-10,65m and 10,80-10,85m, 11,00-11,30m and between 11,90-12,20m (metamylonite zones or metamaphic tuff ?).

(171) - (1)

(161-180)
(9-8)

Average inclination of schistosity (pseudostratification) is 70 - 75 dgr.against to this hole's axis.

(147) - (3) Between 9,70-14,40m is conphorm position of little bit more dark grey, more biotite rich and also little bit mere chlorite bearing mica schist gneiss (paragneiss type).

(113) - (6) Between 3,30-3,35m, 5,45-5,50m, 9,25-9,40m, 9,90-9,95m and 11,80-11,85m are pseudoconphorm positions of whitw and white grey, potash feldspar and quartz rich metapegmatite, with many irregular solution cavityes (max. up to 0,5 -1,5 cm wide). Some of those positions looks like a rubble breccie zones.

(161) - (9) Between 18,00-18,15m is discordant position of dark grey, biotite very rich, flogopite,

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 16 (7A)

chlorite bearing tectonic rubble breccie. Average core recovery of position between 3,00-19,00m is 95 - 100 % about.

19,00 - 30,60 m (147) - (3A) Bright grey, potash feldspar and quartz rich, muscovite/sericite rich, biotite/flogopite, albite and little bit chlorite, epidote bearing mica schist gneiss, with parallel schistose, bedding and ropy - fluidial structure. Epidote was created around joints, fractures and solution caverns. In this rock-complex was created a lot of irregular, but mostly lensformed solution cavityes, stretched always along average schistosity. Size of those caverns changeing between 2 - 5 mm, seldom up to 1 - 1,5 cm. Many of them has kaoline inside and some of them also limonite and epidote.

(187) - (4) Between 22,00-28,00m is parallel conphorm position much more potash feldspar rich. Average inclination of schistosity (pseudostratification) changeing between 70 - 80 - - 85 dgr. against to this hole's axis. Localy was several zones strng isoclinal and disharmonical foldet.

(107) - (7) Between 19,15-19,25m is discordant position of a metahydrothermal quartz (vein), white.

(113) - (6) Between 29,15-29,30m and 30,50-30,55m are pseudoconphorm positions of white grey, coarse grained, quartz and potash feldspar rich metapegmatite, with many irregular solution caverns (max. up to 1 - 2 cm wide).

(180) - (8) Between 19,05-19,15m, 19,25-19,30m, 19,50--19,55m and 19,60-19,80m are pseudoconphorm positions of dark grey and greenish dark grey, biotite very rich, clorite, flogopite and epidote bearing mica schist, with perlitic, ropy structure (maybe a metamaphic tuff or metamylonite).
Average core recovery of this position between 19,00-30,60m is 95 % about.

30,60 - 48,70 m Grey and also little bit more bright grey, biotite rich and quartz and potash feldspar rich, albite, muscovite/sericite and little bit chlorite bearing gneissic mica schist metaconglomerate - ,etaaglomerate, with ropy fluidial eyed structure, with a lot of lensformed rolled pebbles and more angular pebbles - fragments, built by potash feldspar or potash feldspar & quartz. Size of those pebb-

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 16 (7A)

les or fragments changeing between 2 - 5 mm, up to 1 cm. This rock-complex is maybe an intermediar lapilli metatuff. Thi rock was not so much attacked by metahydrothermal leaching proces. That was not created so many irregular and lensformed solution caverns (max. up to 2 cm long and 0,5 cm thick).
Average inclination of foliation (pseudostratification) is 70 dgr. against to this hole's axis, but between 34,00-43,50m changeing between 80 - 85 - 90 - 80 dgr.

(147) - (3A) Between 35,90-37,85m, 39,10-39,25m and between 40,30-43,50m are conphorm positions of potash feldspar and quartz much more rich, bedding (little bit more massive) gneiss. In this position was created only few irregular, lensformed solution caverns (max. 2 - 5 mm wide).

(107) - (7) Between 42,10-42,30m is discordant position of white grey metahydrothermal quartz (vein).

(113) - (6) Between 45,75-46,10m is discordant position of white, coarse grained, quartz and potash feldspar rich metapegmatite breccie. Between ca. 45,86-46,00m was losed more than 50 % of drill-core (strong leaced out and fractured). Average core recovery of this position between 30,60-48,70m is ca. 95 %.

48,70 - 69,00 m Bright grey, potash feldspar and quartz rich, biotite, muscovite/sericite rich, albite and

(147) - (3A) chlorite bearing gneiss, with more massive bedding and ropy - fluidial structure. In this rock-complex was created only rather few irregular, but almost lensformed solution caverns (max. 1 - 1,5 cm long and ca. 2 - 5 mm thick).
Average inclination of schistosity (pseudostratification) changeing between 80 - 85 and 70 dgr. against to this hole's axis.

(113) - (6) Between 48,85-48,90m, 53,10-53,15m, 55,20--55,50m, 59,20-59,35m, 59,40-59,60m, 63,55--63,70m, 64,40-64,45m, 65,70-65,75m, 67,35--67,40m, 68,30-68,55m, 68,75-68,80m, 70,30--70,35m and 70,70-70,75m are pseudoconphorm positions of white grey, or little bit more pinky white grey, mostly coarse grained, potash feldspar (anorthoclas, orthoclas) and quartz rich metapegmatite (metaaplite ?) and also metapegmatite rubble breccie wuth fragments of surrounding rocks (drill-core was fractured), f.ex. between 55,20-55,50m and 59,20-59,35m.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 16 (7A)

Between 50,20-53,50m, 55,20-55,50m, 59,20--59,35m, 63,90-64,00m, 64,40-64,50m, 66,50--66,60m and 67,00-67,30m are positions of very strong fractured drill-core (maybe fault zones).
Average core recovery of this position between 48,70-69,00m is between 90 - 95 %.

69,00 - 96,00 m (171) - (1) Grey and little bit bright grey, biotite rich and quartz, potash feldspar, muscovite/sericite and albite and little bit chlorite bearing gneissic mica schist conglomerate/aglomerate (perhaps an intermediar lapilli metatuff), with parallel schistose - ropy -eyed structure, with a lot of little bit angular rolled pebbles or fragments, also lensformed, built almost by potash feldspar and potash feldspar & quartz. This rock-complex was almost strong attacked by a metahydrothermal leaching proces, which was created a lot of irregular, mostly lensformed solution cavitytes (2 - 10, max. 20 mm long and 1 - 5, max. 10 mm thick), refilled with rests of kaoline, sericite and rare epidote and limonite, f.ex. from 72,30m and extremly between 79,00-80,80m and 82,00-96,00m. Between 83,00-95,00m was all drill-core losed (zones was very strong kaolinized and sericitized).

(147) - (3) Between ca. 69,00-70,70m is concordant position of biotite more rich gneiss (paragneiss type).

(113) - (6) Between 70,70-70,75m, 72,80-72,85m, 75,50--75,55m, 82,65-83,00m and 95,40-95,50m are pseudoconphorm or pseudodiscordant positions of white grey or white and pink and pinky white grey, almost coarse grained, potash feldspar very rich (orthoclas) and quartz rich metapegmatite and metapegmatite rubble breccie, f.ex. between 82,65-83,00m. In all metapegmatite position was created a lot of irregular solution caverns (max. 1 - 2 cm wide).
Average inclination of schstosity (pseudostratification) is 85 dgr. against to this hole's axis, but later changeing between 80 -- 75 and 70 dgr. ca from 80,00m about.
Average core recovery of this position between 69,00-79m is 95 % about, but between ca. 79,00-95,00m was all drill-core losed and between 95,00-96,00m is core recovery 60 % only.

THE BRIEF PETROLOGICAL DESCRIPTION OF TRIAL HOLE NO. 16 (7A)

The trial hole no. 16 (7A) was stoped at depth 96,00 m : pr. August 15th 1994.

With the best wishes

Milosh Henrik Motys
mine-ing.-geologist