FYNE & CUMLODDEN H.M.E. I/A84

Technical Report for period 1st July 1972 - 30th June 1973

During the period, a field office with a project geologist and adequate staff was established in Argyllshire. The full programme of geochemistry, geophysics and geology could then be carried out as indicated in the information accompanying our Second Supplementary Application (12th October, 1973). This involved:-

a) Follow-up stream sediment sampling at 500' intervals over the remaining regional reconnaissance drainage sample anomalies (Fig. 19). Geological examinations were carried out at the same time. Secondary follow-up work will depend upon the results and other commitments. Some progress on one of these anomalies, at Garbh Achadh, had already been made and the results indicated that intensive exploration was justified.

b) Systematic geological, geochemical and geophysical follow-up of the geochemical and geophysical anomalies discovered in the reconnaissance work previously carried out at Coille Bhraghad, Craigaure and in the intervening zone. Some further reconnaissance work was indicated to close geophysical and geochemical anomalies. In order to carry out this work detailed analysis of the magnetic and geochemical anomalies was made and priority ratings established (Fig.5) according to their intensity and degree of coincidence with the anomalous I.P. responses.

For the purpose of this report, the work is sub-divided under four headings:

1. Regional Reconnaissance Drainage Anomalies
2. Garbh Achadh
3. Mines and the Intermine Area
4. Other work

1. Reconnaissance Anomalies

1.1 Geology (Fig.19)

Geological examinations of the Glen Aray and Allt-an-t'Sithien anomalous areas together with the simple point copper anomalies A - H were carried out. No economic mineralisation was discovered.

1.2 Geochemistry (Figs.20-25)

Preliminary follow-up stream sediment sampling at 500' intervals was carried out over all the anomalies. 456 samples were collected, 219 being analysed for copper and nickel and 250 for copper, nickel and zinc.

Geophysics

N.B. COMMENTS IN THIS INK ADDED BY W.G. HENDERSON OF IGS IN OCT. 1974 TO INTEGRATE LATER RECEIPTS INTO THIS REPORT.

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LOCH FYNE & CUMLODDEN M.M.E. I/A84

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1.2 Geochemistry (Figs.20-25)

Preliminary follow-up stream sediment sampling at 500' intervals was carried out over all the anomalies. 459 samples were collected, 209 being analysed for copper and nickel and 250 for copper, nickel and zinc.

2.2 Geochemistry (Fig.11-12)

87 molybdenum analyses were carried out on duplicate material from the original reconnaissance grid sampling exercise in which 786 samples were collected. Maximum values of 25 p.p.m. were reported. Multi-element analyses were carried out on portions of the same material and the presence of silver established in amounts up to 2 p.p.m. 30 of the highest values were checked by Atomic Absorbtion analyses and confirmed silver values up to 2.5 p.p.m.

Detailed soil sampling to give a ground sample-site density of approximately 200' x 100' was then undertaken. 885 samples were collected; 864 being analysed for copper and nickel and 21 for copper, nickel and zinc. The reconnaissance copper anomaly was confirmed and better defined.

20 soil samples were collected from sites having the highest soil silver content and these were analysed for gold by Neutron Activation Analysis. A maximum of .310 p.p.m. gold with encouraging supporting values, was reported over a theoretical background of 0.02 - 0.03 p.p.m. Further work to test the precious metal potential of area, particularly in view of the results of the microscope work, is envisaged. Rock analyses for gold are too few to be meaningful at this stage.

2.3 Geophysics (I.P.) (Fig.13-18)

A reconnaissance survey on lines approximately 1,000' apart (18.5 line miles), using an 800' dipole - array was carried out and suitable encouragement obtained to go ahead with a detailed survey on lines approximately 200' apart with readings taken every 100'. A pseudo section was constructed to select the best electrode array for the detailed survey. This survey was limited to the extent of the copper geochemical anomaly and the results are presented in Figs. 16-18. 12.2 line miles of survey were involved.

2.4 Surveying

The pegged and numbered grid used for the detailed work was surveyed using a plane table and alidade technique. The resultant grid was used to plot all the detailed data.

3. Mines and the Intermine Area

3.1 Geology

Geological examinations were made of all the sites assigned A, B+ and B ratings after analysis of the

anomalous responses. B, C and D rated anomalies were disregarded. No economic mineralisation was discovered outside the two old mine areas. The observed variation in magnetite, trace-element and disseminated sulphide content of the under-lying rock types provides a satisfactory explanation of the anomalies.

Analyses of rock specimens from the two old mine areas indicated the presence of gold in a sample of massive ore at Coille Bhraghad. The occurrence is to be further investigated. Replicate specimens were analysed for copper, nickel and sulphur primarily to determine the sulphur-nickel ratios.

3.2 Geochemistry

3.2.1 Stream Sediment sampling (Fig.1)

58 stream sediment samples were collected in the Furnace - N. Craleckan Form area which adjoins the inter-mine area and which was not adequately covered in the reconnaissance sampling programme.

3.2.2 Soil Sampling (Figs. 2-4)

Some of the reconnaissance soil sampling lines were extended and more adjacent lines sampled to give the same ground cover as that obtained by the I.P. survey. 274 samples were collected. In the proximity of A, B+ and B rated anomalies intermediate lines were sampled at 100' intervals and 841 samples were collected. Closer spaced sampling was considered unwarranted in the light of geological investigations.

Detailed soil sampling using a 200' x 100' grid spacing was carried out at Craigmure and Coille Bhraghad (Figs. 3 and 4) If anomalies due to contamination by the old workings are discounted the remaining copper and nickel values are discouraging. In this programme a total of 543 samples were collected.

Geochemical re-analysis of rock specimens containing disseminated sulphides was disappointing confirming the suspected laboratory contamination.

Multi-element analyses were carried out on 82 soil samples from the two old mine areas.

3.3 Geophysics

3.3.1 Induced Polarisation (I.P) (Fig.5-8)

Some of the original reconnaissance survey lines were extended in an attempt to close off the existing anomalies and, in the proximity of A, B+ and B rated anomalies, intermediate survey lines were used. A total

of 26.5 line miles of I.P. survey was involved. The reconnaissance geophysics has not successfully distinguished massive mineralisation from rocks containing uneconomic disseminated mineralisation. For this reason more detailed work, especially I.P. is considered necessary around the known mineralised occurrences which have been mined. A pseudo section was constructed for one line across the Coille Bhraghad occurrence to select the best electrode configuration which might be used in a future detailed survey.

3.3.2 Magnetometry (Fig.9)

A detailed magnetic survey was carried out in the Coille Bhraghad area involving 6.2 lines of survey. To the north of the mine an area of strong magnetic activity was found and more work, carrying the survey further north and better defining the anomalies in the active zone, will be necessary.

More detailed magnetic work over the reconnaissance A, B+ and B rated anomalies was not carried out as planned because of the overwhelming effect of magnetic activity caused by dolerite dyke and sill intrusions.

4. Other Work (Fig. 19-20)

Preliminary follow-up work was carried out over small blocks of Forestry Commission ground adjoining Argyll and Cumlodden in the Glen Aray region. The results are presented in Fig.20.

Approximately fifty samples are involved and these were necessary to complete the cover of the particular area. As the land covered lies outside the area designated in our application, the cost of this work has been deducted from our submission accordingly, but the information is included for completeness.

GLEN ARAY SAMPLES NUMBERED BETWEEN LF 4796 and 4902 on (4ii) ENC. 28 5/6 AND 6/6 AND LOCATED ON ENCS 29 AND 30.

BRANNIE BURN SAMPLES NUMBERED BETWEEN LF 5007 and 5035 on ENC. 28 6/6 AND LOCATED ON ENC. 31

Multielement analysis was carried out on each of 50 selected samples from the Glen Aray and Brannie Burn areas but showed no significant associations of other elements with copper and nickel.

1.3. Geophysics (Fig. 26-27)

A reconnaissance I.P. survey was carried out at Brannie Burn. 9 line miles were read. Geological examination of the anomalies is required. THE I.P. SURVEY FOLLOWED STREAM SEDIMENT AND SOIL SAMPLING SURVEYS CARRIED OUT PRE-MEIKA IN 1970-1971.

Further work on the reconnaissance anomalies will be required in the form of geochemical sampling, geological field checks on occasional stream sediment nickel anomalies together with more preliminary follow-up drainage sampling.

2. Garbh Achadh

2.1 Geology (Fig.10)

Following encouragement from the preliminary follow-up stream sampling geological examinations of the area were made. Disseminated mineralisation was observed over much of the area consisting mainly of pyrite with associated chalcopyrite. Only in isolated cases was massive mineralisation found. One old trial, discovered, consisted of a shallow down-dip excavation exhibiting minor copper staining. An old dressing-floor was found outside the main sampling grid midway between High Balantyre farm and Garbh Achadh. The origin of the pieces of ore however, has not been satisfactorily established.

MARKED IN RED ON (4ii) ENCLOSURE 10

The cursory examination was expanded into detailed mapping as interest in the area strengthened. Mapping is to continue. Fig. 10 includes mapping which was carried out after June 1973, but which is impracticable to erase.

Routine thin and polished section work confirmed the presence of disseminated pyrite and associated chalcopyrite in many of the rock types of the area. Argentiferous gold was seen in one specimen. Gold analysis on some early rock samples failed to give any encouragement. Copper, sulphur and nickel analyses were carried out on two rock specimens.

LOCATION MARKED IN PENCIL ON (4ii) ENC. 10

GARBH ACHADH

ONLY 2 Au ANALYSIS DONE DURING THIS STAGE OF PROJECT. SEE LFAU 1, 2 IN P(4ii) ENC 32 1/3.

LFAU 1 and 2 - SEE (4ii) ENC 32 2/3

LFAU 1, 2 LOCATED ON (4ii) ENC 10 IN PENCIL.

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MARKED IN RED ON (41) ENCLOSURE 10

The cursory examination was expanded into detailed mapping as interest in the area strengthened. Mapping is to continue. Fig. 10 includes mapping which was carried out after June 1973, but which is impracticable to erase.

Routine thin and polished section work confirmed the presence of disseminated pyrite and associated chalcopyrite in many of the rock types of the area. Argentiferous gold was seen in one specimen. Gold analysis on some early rock samples failed to give any encouragement. Copper, sulphur and nickel analyses were carried out on two rock specimens.

LOCATION MARKED IN PENCIL ON (41) ENC. 10

GARBH ACHADH — ONLY 2 Au ANALYSIS DONE AT DURING THIS STAGE OF PROJECT. SEE LFAU 1, 2 ON P(41) ENC 32 1/3.

LFAU 1 and 2 - SEE (41) ENC 32 2/3

LFAU 1, 2 LOCATED ON (41) ENC 10 IN PENCIL.

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THESE SAMPLES NUMBERED LF 3400 to LF 3715. RESULTS GIVEN ON (4-11) ENC 28 3/6 AND 4/6

87 molybdenum analyses were carried out on duplicate material from the original reconnaissance grid sampling exercise in which 786 samples were collected. Maximum values of 25 p.p.m. were reported. Multi-element analyses were carried out on portions of the same material and the presence of silver established in amounts up to 2 p.p.m. 30 of the highest values were checked by Atomic Abosrbtion analyses and confirmed silver values up to 2.5 p.p.m.

THESE SAMPLES FROM GARBS CHAINON CANNOT BE ACCURATELY LOCATED BY COMPARING [illegible] RESULTS ON LOCATION MAP (4-11) ENC 11 WITH THE [illegible] ACCURATELY PLOTTED (4-11) ENC 12.

Detailed soil sampling to give a ground sample-site density of approximately 200' x 100' was then undertaken. 885 samples were collected; 864 being analysed for copper and nickel and 21 for copper, nickel and zinc. The reconnaissance copper anomaly was confirmed and better defined.

SHOULD BE 754 SAMPLES. OBVIOUS MISTAKE MADE IN COUNTING TOTAL SAMPLES

20 soil samples were collected from sites having the highest soil silver content and these were analysed for gold by Neutron Activation Analysis. A maximum of .310 p.p.m. gold with encouraging supporting values, was reported over a theoretical background of 0.02 - 0.03 p.p.m. Further work to test the precious metal potential of area, particularly in view of the results of the microscope work, is envisaged. Rock analyses for gold are too few to be meaningful at this stage. SEE PREVIOUS PAGE FOR GOLD ANALYSES.

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RESULTS FROM THESE SPECIMENS NUMBERED LFAV 3 - 6. ARE PRESENTED ON (4ii) ENCLOSURE 32. LFAV 3-5 LOCATED ON (41) ENC 2 ON DUMPS. LFAV 6 LOCATED ON (4i) ENC. 3

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SEE SAMPLE LOCATIONS (4ii) ENCLOSURES 33, 34, 35. RESULTS GIVEN ON (4ii) ENCLOSURE 36

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SEE RESULTS GIVEN (4ii) ENCLOSURE 28 , 5/6, AND 6/6. LOCATED ON (4ii) ENCLOSURE 37 (CRAIGMURE) ENC 38 (COILLE BHRAGHAD)

Multi-element analyses were carried out on 82 soil samples from the two old mine areas.

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List of maps accompanying Geological Report for Loch Fyne Project A E 4

No.		Title
Fig.	1.	Furnace - N. Craleckan farm, P.F.U. Stream sediment sampling. ✓
	2.	Mines and Intermine area. Soil sampling results - copper, nickel (zinc)
	3.	Craigmure - Soil sampling - copper, nickel values.
	4.	Coille Bhraghad - Soil sampling - copper, nickel values.
	5.	Mines and Intermine area. Locations of priority A, B+ and B anomalies.
	6.	" " " Chargeability values.
	7.	" " " Resistivity values.
	8.	Coille Bhraghad I.P. Pseudo Section.
	9.	" " Detailed magnetometry survey.
	10.	Garbh Achad. Geological sketch map. ENC 44 IS A BETTER COPY
	11.	" Soil sampling values.
	12.	" Detailed grid soil analysis.
	13.	" Chargeability values.
	14.	" Resistivity values.
	15.	" I.P. pseudosection.
	16.	" Detailed grid. Chargeability results.
	17.	" Detailed grid. Resistivity results.
	18.	" " " Metal Factor results.
	19.	Argyll and Cumlodden Estates. Location of Garbh Achadh, Glen Aray, Allt-an-t'Sithein and Brannie Burn anomalous areas and anomalies A - H.
	20.	Glen Aray and adjoining Forestry Comm. Grounds P.F.U. Stream sediment sampling.

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~~Fig.~~ 21. Glen Shira. Allt-an-t'Sithein, Head of Brannie Burn and anomaly A. P.F.U. stream sediment sampling.

22. Glen Shira. Anomalies B, C and D. P.F.U. stream sediment sampling.

23. Glen Aray. Anomaly E. P.F.U. stream sediment sampling.

24. Douglas Water. Anomaly G. " "

25. Feolin. Anomaly H. " "

26. Glen Shira. Brannie Burn. Chargeability values.

27. " " Resistivity values.

28. (6 PAGES) MULTIELEMENT ANALYSES FOR
GARBH ACHAIDH (SOILS)
CRAIGNURE (SOILS)
COILLE BRAGHAD (SOILS)
GLEN ARAY (STREAMS)
HEAD of BRANNIE BURN (STREAMS)

F 29. LOCATION MAP FOR GLEN ARAY MULTIELEMENT STREAM SAMPLES. ARGYLL 133 SW.
F 30. " " " " " " " " ARGYLL 125 NW
F 31. " " " BRANNIE BURN " " " ARGYLL 126 NW
32. (3 PAGES) Cu, Ni, S MULTIELEMENT AND Au ANALYSES FOR SAMPLES LEAN 1-6 GARBH ACHAIDH, COILLE BRAGHAD, AND CRAIGNURE AREAS.
F 33 LOCATION MAP FOR CRAIGNURE ROCK SAMPLES. ARGYLL 140 SW.
F 34. " " " INTERMINE AREA " " ARGYLL 132 SE.
F 35 " " " COILLE BHRAGHAD " " ARGYLL 133 SW
36 (2PP) MULTIELEMENT ROCK ANALYSES FOR CRAIGNURE, INTERMINE, AND COILLE BRAGHAD AREAS.
37 LOCATION MAP FOR MULTIELEMENT SOIL ANALYSES CRAIGNURE AREA
38 " " " " " " COILLE BHRAGHAD AREA
F 39 " " " COMPANY GRID GARBH ACHAIDH AREA PAPER COPY
40 " " " " " " " " TRANSPARENT "
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42 " " " " " " " " " "
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44 GARBH ACHAIDH GEOLOGY, CLEAR COPY OF ENC 10
45 " " LOCATION OF SURVEY GRID.

29th January. 1974

E.M. Jones

TS ENCLOSURE GIVEN TO MR R. ELLIS OF IGS, GEOCHEMICAL DIVISION, CLERKENWELL RD, LONDON ON 11-2-75

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29th January, 1974

E.M. Jones

Drilled By	D.P. 1	Collar Co-ordinate (grid)	660A/366	D.D.H. No.	D DGA 2
Date Started	12th MAY 1974	Collar Elevation		Area	CARN ACHADH
Date Completed	29th MAY 1974	Orientation	Grid N.	Length	402'9"
	from m.	Recovery		Purpose	TESTAN a IP. ANOMALY
	from m.	Inclination	45°	Logged By	S J.K.
	from m.	Corrected		Date	5th June 74.

Consolidated Gold Fields Limited

DIAMOND DRILL CORE RECORD

Project: LOCH FYNE

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
7'	60'10"	GRITS + QUARTZITES			7'-10'. fine-to-medium grained tough grey gritty quartzite; some dissem pyrite but not widely distributed.							
					[7'-9 11½" = H Core, remainder = NQ Core]							
					10'-13' medium-grained grey grit + small kaolinised felspars. Fine dissem pyrite + thin pyrite coating on fracture surfaces, some of which are also covered by olive-green coloured material (???) Imposed regional foliation visible at approx 55°							
					13'-23'7" grit becoming coarser towards with depth. Some dissem pyrite but limited. Contact with underlying quartzite at approx 55°.							
					23'7"-29' fine grained impure quartzite with some mafic material present giving grey speckled appearance. Scarce dissem pyrite + some short pyrite stringers. Contaminated:-							
					23'10"-25" Foliated siltstone "block" within the quartzite. No evident sulphides. Many tiny kaolinised felspars.							
					25'6½"-25'8" - peculiar circular area							

Consolidated Gold Fields Limited
DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 2 D.D.H. No. LGA 2

METRES From	METRES To represent	GEOLOGICAL LOG Rock Type	Graphic Log	Intersect Angle	Description	ASSAY RECORD Sample No.	From	Length	Rec.
		GRITS & QUARTZITES (continued)			composed of granitic-looking material about 1½" diameter with "walls" approx ¼" thick with quartzite in centre to give "corona" type appearance. Consists of quartz, felspar, mafic material & dissem. pyrite. Felspathisation effect ?				
					24'-35'3" Gritty quartzite grading into medium-grained grit. Some dissem pyrite & unmineralised quartz & calcite stringers.				
					34'1"-34'7" coarse epidotised grit cut by many calcite veinlets (small fault)				
					35'3"-60'10" various quartzites, gritty quartzites & grits, difficult to delineate boundaries. Within these are many several felspathised & epidotised areas. Fine dissem pyrite scattered through.				
					36'2"-36'6" area of segregation of quartz, black mafic minerals, pink felspar & some green epidote & calcite. Fair amount of dissem pyrite.				
					39'10½"-39'11½" : 2" x 1" oval area of epidote, quartz, calcite & altered pink felspar within quartzite. No mineralisation.				
					42'7"-43' Area of quartz, calcite & mafic material associated with epidote & felspar. Speckled appearance, medium-grained, strong reaction to acid. Very fine dissem pyrite & scarlet material which reacts to acid (limonite from alteration of pyrite/FeS or cinnabar ?)				

Consolidated Gold Fields Limited

DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 3

D.D.H. No. LGA 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		GRITS + QUARTZITES (Cont.)			44'5½" - 45'0½" - as above.							
					45'7½" - 47' Dark speckled coarse-grained gritty band with calcite, epidote, disem pyrite + limonite?							
					48'8" - 49'7" pink felspathised horizon within a quartzite band with epidote, calcite + disem pyrite. Thin calcite veinlets.							
					52' - 52'7" Within quartzite is coarser area with dark-grey speckled appearance. Contains epidote, + some calcite, disem pyrite + blood-red mineral with basal cleavage (hematite?)							
					56'7" - 60'10" felspathised gritty quartzite, medium grained with numerous pink felspars. Scattered epidote + fine disem pyrite + unmineralised calcite + stringers. 57'1" = limonite (?) on fracture surface.							
60'10"	111'4"	METAMORPHOSED SILTSTONE/ASH (??) SEQUENCE			Contact with quartzite runs at approx 60° to core & length is marked by ¾" wide calcite vein containing chalcopyrite, pyrite, 2 small patches of galena + some graphite							
					Rock is dark-grey in colour, very fine-grained + is highly phyllitised giving thin laminae approx parallel to the visible ~~impersed~~ regional foliation at about 70°. Very soft, scratched easily by knife							
					Much calcite involved both as veinlets parallel to laminae + as stringers +							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACADH

Sheet No. 4

D.D.H. No. LCA 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
					veinlets cross-cutting them. Some massive calcite often associated with pyrite cubes. Thin lenses of calcareous material within sequence give rock a streaky appearance.							
					Dissem. pyrite scattered through + also fine stringers + veinlets. Massive quartz veinlet here + there + associated blebby pyrite. Pyrite ~~is~~ seems to be on fracture planes. Some dissem chalcopyrite in assoc with pyrite visible							
					Small-scale shear planes at 45° to length at 61'5" & 62'8".							
					65'5½" - 65'7" 'Augen' structure involving 3" x 1½" quartz 'blob' with silty material in centre. Some 'blebby' pyrite present							
					67'9" - 68'2" - massive quartz + silty material. Pyrite + associated "blebby" chalcopyrite							
					68'4" - ½" wide quartz veinlet + chalcopyrite + pyrite							
					68'9" - 70'6" Highly felspathised, fine-grained, cherty-looking section. Overall pinkish colour with darker, less-fine-grained bands (gneissic looking) + epidote parallel to banding. Many thin calcite stringers usually with associated pyrite. Dissem. pyrite also.							
					Top 5" has large calcite veinlet associated with minor fault. Much "blebby" chalcopyrite.							
					69'2½" - 1½" of soft grey-green siltstone with pyritiferous calcite veinlets.							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 5

D.D.H. No. LGH 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
					73'4" - 2" wide quartz vein + some dissem pyrite.							
					75'9" - 76'6" section with abundant thin pyrite stringers, parallel + cross-cutting foliation. Patches of "blebby" pyrite present.							
					80'6" - 87'10" Heterogeneous section with many pinkish quartz bands + darker spotted areas. A little dissem pyrite + thin stringers on some fracture surfaces							
					84'4" - 84'5½" } greenish "spotted" areas, ashy-looking 85'4" - 85'6½" } + much very fine dissem. pyrite							
					86'5" signs of secondary, superimposed foliation at 45-50° to core direction. Intersects primary regional foliation at 40 to 45°.							
					87'5½" 1½" wide feldspathised band rich in epidote + fine dissem pyrite + stringers.							
					89'5" 1½ wide layer of light-grey speckled, fine-grained ashy material + dissem. pyrite.							
					90'2" - for 4" same as above but pyrite veinlets							
					90'9" - 2" of ashy material + dissem pyrite							
					91'6" 3" " "							
					From 92' rock becomes very heterogeneous - difficult to delineate specific units + rock much more "spotted" now (hornfelsing?) Much green epidote present + assoc. dissem pyrite. Thin pyrite stringers throughout + calcite veinlets mainly with associated pyrite. "Blebby" pyrite on fracture surfaces. Some patches ~~are~~							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GHRDH ACHADH

Sheet No. 6

D.D.H. No. LGH 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
					appear highly felspathised (tough, fine-grained pinkish areas).							
					96'7"-96'10" small fine-grained lens-shaped areas with this section. Zoned with pinkish material on margin, light-grey towards centre, dark-grey + speckled in centre. Associated dissem pyrite.							
					100' - ¾" thick calcite vein + "blebby" pyrite.							
					111'5" - 3" wide highly epidotised with much dissem pyrite + thin stringers.							
					From 110'10" "spotting" increases in intensity + size giving an overall darker speckled appearance	(N.B - spots not visible in split sections)						
					114'9"-115'8" minor folding involving a 'spotted' unit. Axial-plane direction 80° i.e. parallels regional foliation. Dissem pyrite + folded pyrite stringers + concentrations of pyrite in fold cores.							
					115'8"-117' pinkish felspathised rock. Extensive calcite veinlets + associated pyrite.							
					121'1" axial plane of minor fold paralleling regional foliation.							
					123' 2" section highly felspathised + "blebby" pyrite							
					128'7"-129' oval segregations of pink felspathised material with dissem pyrite.							
					133'10"-134'7" minor fissures within 'hornblende' material. Axis at 134'11"-135'2"							
					135'9" ½ wide band of light-grey fine-grained pyritic rock + dissem pyrite.							
					138'5"-141'7½" very fine grained, unspotted							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, CARBH ACHADH

Sheet No. 7

D.D.H. No. LGA 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
					grey-pink highly felspathised + epidotised unit with much fine disseminated pyrite especially in association with epidote. Extensive thin pyrite stringers + calcite. Last 8" v. rich in pyrite							
					142' 7½" - 142' 11" - block of quartzitic material within more silty horizon. Some dissem pyrite + stringers							
					143' 4" ½" wide grey aphanitic band separating dark spotted "material" from mottled siltstone / ash (?). Dissem. chalcopyrite + pyrite and also stringers of them.							
					143' 11" - as above.							
					147' 2" - 3" x 2" oval area of zoned material (altered ?) Dissem chalcopyrite around this + some fine pyrite within it							
					147' 4" 11½" Band of fine-grained pinkish-grey altered + dissem. pyrite + pyrite stringers							
					152' - 152' 4" thin coating of a soft white material along fracture planes. Unreactive to dilute acid (gypsum??)							
					154' 7" - 155' 9" pinkish grey, fine-grained quartzitic section. Dissem pyrite + areas of concentration of pyrite. Also on fracture surfaces.							
					156' 5" - 157' thin brecciated area with pinkish felspathised altered + grey foliated siltstone / ash (?) Dissem. pyrite + calcite veinlets with pyrite.							

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DIAMOND DRILL CORE RECORD

Project: LOCH EYNE, CNOC AN ACHAIDH Sheet No. 8 D.D.H. No. LG12

METRES From	METRES Represents	Rock Type	Graphic Log	Intersec Angle	GEOLOGICAL LOG Description	ASSAY RECORD Sample No.	From	Length	Rec.
					157'7"-158'4" grey recrystd. fine-grained, fcbearing silicified tuff/ash (?) cut by many thin pinkish veinlets containing fcbic material + qtz + calcite + "blebby" pyrite.				
					158'10"-160'5" pinkish-grey silicified zone cut by many calcite/qtz stringers. Chalcopyrite in stringer at 159'5" (about 1" long) + also associated with pyrite on fracture surfaces.				
					160'5½"-160'8" - fcpyritised band + disseminated pyrite				
					162'4½"-162'11" - grey qtzite + pyrite stringers				
					163'4"-163'7" - zone of disturbance with brecciation of silicified ash + calcite veinlets				
					164'4"-165'8" - grey banded recrystd. quartzite. Abundant pyrite disseminated in stringers + on fracture surfaces. Associated chalcopyrite at 165'5".				
					167'7"-168'6" - brecciated + silicified zone with massive qtz. Disseminated pyrite + associated chalcopyrite.				
					168'6"-170'7" ?siltstone/ash + many pink qtz veinlets with blebby pyrite. At 170'1" is 1" white material (gypsum ?) is decomposed calcite? Many calcite veinlets + associated pyrite.				
172'3"	2'3½"	QUARTZITE			172'3"-173'2" Transition zone of pinkish-grey contaminated quartzite with darker grey zone of silicified tuff/ash (?) Much pyrite on fracture surfaces parallel to core. Much disseminated pyrite + stringers. Some associated chalcopyrite				

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DIAMOND DRILL CORE RECORD

Project: LOCH EYNE GARBH ACHADH Sheet No. 9 D.D.H. No. LGrA 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
					173'2"-179'6" Homogeneous fine-grained grey quartzite with much dissem. pyrite + blebby pyrite on fracture surfaces Chalcopyrite stringer at 176'2". Short pyrite stringers + small veinlets							
					179'6"-186'2" Gritty quartzite with small yellowish-brown areas (<1mm-felspars??) ~~chalcopyrite~~ dissem pyrite + stringers.							
					153'9"-186'2" - contaminated pyrite with silicified tuff/ash/siltstone? Pyrite stringers							
					186'2"-192'10" - coarser gritty pyrite + dissem. pyrite + stringers + on fracture surfaces							
					192'10"-196' grey fine-grained pyrite							
195'	4'	BRECCIATED TRANSITION ZONE			196'-197'4" silicified + ~~felsparthused~~ tuff/ash/siltstone(?). Much fine dissem pyrite + pyrite stringers Chalcopyrite in ~~dissem~~ at 196'2" on fracture surfaces.							
					197'4"-199'1" crushed ~~of~~ core pyrite + small "granite" fragments + ~~porphyry~~ Massive pyrite in veinlets around fragments.							
					199'1"-199'3" - highly ~~homed~~ pink + grey silicified + ~~felsparthused~~ epidiorite (?) section + pyrite stringers.							
					199'3"-266'4" highly silicified zone + many calcite veinlets + pyrite stringers. Included are small "granite looking" fragments.							
					266'4"-267'8" Orange porphyry + 5" black							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARISH ACHILLH Sheet No. 10 D.D.H. No. LGH 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
					of dark basic igneous "meta-dolerite (?)							
					201'8"-205' Heterogeneous section with dark, streaky, grey-black veined-tuff (?) porphyry + "granite" fragments. Extensive pyritisation around fragments + stringers associated with calcite							
205'	136+	PORPHYRY			Quartz-felspar porphyry, generally very rich in white felspar (pheno) with intersections in some areas. Subtle variations in colour present, (depending on the concentrations) contains disseminated pyrite mainly often with associated chalcopyrite							
					205'-206'9" purplish porphyry + dissem pyrite.							
					206'9"-208'3" overall banding yellow colour very rich in felspar. Dissem. pyrite + calcite veinlets with pyrite. A little chalcopyrite at 207'6"							
					210'-212'6" - Much white felspar. Dissem chalcopyrite associated with pyrite. Blebby pyrite on fracture surfaces -							
					213'3-217'9" section very rich in "rusty-looking" felspar, grey & yellow-brown porphyry. Much dissem pyrite.							
					214'6"-215'4" greyish granite-looking porphyry							
					223'4"-253'4" orange-coloured coarse porphyry with much white plag crystals. Dissem pyrite + associated chalcopyrite. Calcite veinlets + pyrite, + pyrite on fracture surfaces.							
					229'1" - abundant highly dissem. pyrite.							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 11 D.D.H. No. LGA 2

METRES From	METRES Represents	GEOLOGICAL LOG Rock Type	Graphic Log	Intersec Angle	Description	ASSAY RECORD Sample No.	From	Length	Rec.
					230'8" - 5mm wide pyrite veinlet at 45°				
					251' - pyrite veinlet 1cm wide at widest point tapering to about 1mm. Runs at 45°.				
					252'7" - 2mm wide chalcopyrite stringer with associated pyrite.				
					253'4" - 289'9" light, coloured pinkish porphyry, white plag crystals. Much disem pyrite & associated chalcopyrite, also stringers in association often with calcite veinlets.				
					266'5" fracture surface with 4mm. wide chalcopyrite veinlet at 45° to core.				
					264'7" - 265'9" — purplish porphyry				
					264'11" - thin chalcopyrite stringer				
					265'9" - 266'3" - abundant disem chalcopyrite				
					267'10" 2mm wide pyrite veinlet + associated chalc				
					273'7" - 2cm x 1cm. fragment of dark grey tuff/ash?				
					276'8" - 285'6" - numerous thin quartz veinlets (<3mm wide) at 45° to core usually pyritiferous, some associated chalc.				
					286'4" - fracture surface coated with blebby pyrite + associated chalcopyrite.				
					289'9" - 298'4½" - light purple porphyry with high percentage white plag. feldspar phenocrysts up to 5mm wide. Disem pyrite + stringers, pyrite on fracture surfaces with associated fine chalcopyrite.				

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARRON ACHAIDH Sheet No. 12 D.D.H. No. LGA 2.

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec			
					292'-294'1" - grey/blue qtz veinlets + some disseminated pyrite + chalcopyrite.							
					295'4½"-307' orange-brown porphyry rich in plag crystals but barren of mafics. Much pyrite disseminations + stringers + associated chalcopyrite.							
					302'6" - brecciated fragmented porphyry + calcite + pyrite.							
					304'8"-305' - as above.							
					307' - 3mm wide pyrite veinlet + chalcopyrite							
					307'-317'1" orange porphyry cut by thin qtz + calcite veinlets. Low mafic content							
					309'9": 310'7" - many pyrite veinlets + disseminated pyrite + associated chalcopyrite fracture surfaces coated with pyrite.							
					313'6"-314'4" pyrite veinlet + pyrite in fracture surfaces. Both have associated chalc...							
					317'-338'6" purplish coloured groundmass with darker included fragments cut by many thin quartz veinlets down to 327'4" Pyrite disseminations + stringers + associated chalcopyrite.							
					320'4"-322' - much chalcopyrite, pyrite disseminations + stringers - associated silver (?)							
					327'6"-329' brecciated with "granitic" fragments + dark "epidosite" fragments. Chalcopyrite associated with pyrite.							
333'	2'10½"	BRECCIATED CONTAMINATED PORPHYRY			Included fragments of porphyry, dark "epidosite"							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, CARBH ACHADH

Sheet No. 13

D.D.H. No. LCH 2

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
					epidomite (?) + banded pink + dark grey metasediment / tuff ?. Dissemi. pyrite + qtz veinlets with pyrite.							
341'4½"	55'2½"	SILICIFIED BANDED METASEDIMENT / TUFF ?			Top 2'6" is highly brecciated with interstices infilled with massive pyrite. Down to 370'8' the rock is banded dark grey + pink very fine-grained + tough. Dark bands wider than rest up to 2 3" wide pink bands no greater than ½". Contain very fine disseminated pyrite + small pyrite on fracture surfaces. Appears highly silicified in parts + often epidote is found both in patches + veinlets. Pyrite streaky present + thin qtz + calcite veinlets usually with associated pyrite. Some associated chalcopyrite 344'8" - chalcopyrite associated with pyrite on fracture surface. 355'1"-357' } highly silicified grey zone 358'6"-359'4" } with many thin qtz stringers often with pyrite. Much disseminated pyrite 367'7" - massive pyrite in area 1"x1" 364-369'5" - "blebby" pyrite along fracture plane + associated chalcopyrite. 370'9"-399'7" Highly silicified section varying in colour from grey to grey-pink to							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARRA ACHAIDH Sheet No. 14 D.D.H. No. LCH 2

METRES From	METRES Represent	GEOLOGICAL LOG Rock Type	Graphic Log	Intersec Angle	GEOLOGICAL LOG Description	ASSAY RECORD Sample No.	From	Length	Rec.
					fine. Very fine grained & gritty base. Dissem. mineralisation present & associated green epidote. Qtz veinlets & stringers with pyrite & ass...				
					373'-373'4" - fracture surface with a scarlet mineral - cinnabar(?)				
					374'-394'7" - quartz veinlets & stringers with dissem. pyrite				
					377'-378'8" - dissem. chalcopyrite ass. with pyrite & stringers. At 377'7" is 1" wide qtz vein at 45° with pyrite & chalco.				
					382'-c' - fine chalcopyrite associated with pyrite.				
					393'-393'4 - scarlet mineral - cinnabar? generally associated with pyrite				
					394'-10" - as above.				
					399'2" - 399'6" - massive quartz veinlet with disseminated chalcopyrite & pyrite.				
399'7"	3'2"	ANDESITE EPIDIORITE			Grey fine grained with fracture at 80° to c.a. Core dissected by very fine dissem. pyrite & thin stringers & veinlets of pyrite cut by many quartz veinlets up to ½" wide with some associated pyrite.				
402'9"		END OF HOLE.							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE Sheet No. 2 D.D.H. No. LGA 1

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
102' 0"	1' 2"	Qtzite			Qtzite. Appears to be some thin qtzite bands							
					at base of cumulate sequence also —							
					probably xenoliths							
103' 2"	26' 3"	Breccia			Heterogeneous aggregate of breccia blocks							
					with porphyry matrix. Blocks of qtzite common							
					Blebby pyrite common ? assoc'd with the breccia							
					blocks. Becomes felsic towards base then grades							
					into : —							
129' 5"	25' 0"	Breccia			More mafic brecciated section with mostly							
					epidiorite of variable composition ? in places							
					epidotised. "Granitic" segregations present usually							
					with blebby assoc'd pyrite brown pyrite							
					common ? some calcite veining with							
					assoc'd pyrite. Contact with porph at ∿ 25°							
154' 5"	61' 4"	Porphyry		Fine ? bleaching 40°-45°	Grey pink qtz. felsp. biotite porphyry xenoliths							
					common throughout. Ubiquitous disseminated							
					pyrite (prob. <1%). Occasional qtz porphyry							
					xenoliths of coarser grain. Qtz veining							
					common ? some calcite veins particularly							
					at base.							
215' 9"	96' 6"	Epidiorite		felsic 80° (bleached)	Mafic epidiorite with superposed penetrative							
					foliation. Blebby chalco pyrite localised							
					at 220' 6". Occasional brown pyrite ?							
					more rarely chalcopyrite. Pyrite veinlets							
					common							
					257' 7" - 258' 0" — Qtz veining "Granitic" appearance.							
					268' 8 - 269' 4" — Local brecciation, qtz veining + felspar							

Drilled By	D.P.1	Collar Co-ordinates	(Grid) 650A / 367	D.D.H. No.	DDTA 1
Date Started	23 th April 74	Collar Elevation		Area	GIRBH ACHADH-I
Date Completed	9 th May 74	Orientation	Grid N.	Length	413'
from	m.	Recovery		Purpose	TEST Au / I.P. ANOMAL
from	m.	Inclination	45°	Logged By	AJN. & SJK.
from	m.	Corrected		Date	10th May 74

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE

FT METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
0	1'	Peat			Peat.							
1'	12' 6"	Boulder clay			Boulder clay last 2' 8" is brown clay matrix							
13' 6"	1' 6"	Epidiorite			Fragmented epidiorite with some creamy clay							
15' 0"	5' 6"	Epidiorite			Fragmented ferruginous epidiorite. Rusty partings							
					probably equivalent to weathered pyrite veinlets.							
					< 1% disseminated pyrite and occasional							
					magnetite grains							
20' 6"	10' 6"	Epidiorite			fresh massive epidiorite with calcite veinlets							
					commonly with assoc'd pyrite. Minor diosom							
					pyrite.							
31' 0"	21' 5"	Epidiorite			Ditto — but NQ core size.							
52' 5"	29' 1"	Quartz			Variable quartz with some gritty areas. Banded							
					horizons with "talcy" partings from 72' 3" — 73' 11"							
					Disseminated pyrite & some chalcopyrite. Some							
					joint surface coatings of pyrite/chalcopyrite.							
81' 6"	20' 6"	Cumulates ?		80-85	Finely banded sequence of mainly felsic							
					cumulates, narrow bands of tremolite common.							
					Superposed foliation at 60-65°. Sulphides rare							
					ex along some fractures and assoc'd with the							
					narrow mafic layers. Some graphite noted							
					on a joint surface at top of sequence.							
					Grading in the mafic layers suggests the							
					sequence is over-turned. Minor folding from 96' 10"							
					to 97' 5"							

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DIAMOND DRILL CORE RECORD

Project: LUCH FYNE

Sheet No. 3

D.D.H. No. LGA 1

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
					291' 5" – 291' 11" Qtz vein followed downhole by narrow breccia with qtz fragments.							
					297' 6" – 298' 10" Qtz veining and blebby pyrite followed downhole by 2 narrow "compositional" bands of more felsic nature. Some disseminated chalco in these bands.							
					311' 0" – 311' 6" Qtz vein.							
312' 3"	25' 4"	Epidosite (Mottled streaked appearance)		80° for 317'2"	Mottled streaked epidosite.							
					315' 4" Narrow felsic band with blebby pyrite.							
					317' 3" – 318' 11" Lighter zone with qtz/calcite banding.							
					333' 6½" – 333' 10" Narrow "aplitic" vein, diffuse contacts							
337' 7"	22' 5"	Epidosite			Mafic Epidosite.							
					343' 10" – 344' 2" Granitic vein.							
				75°	348' Narrow ½" fine grained lighter band (compositional ?)							
					352' 3½" – 352' 6" Felsic horizons with assoc'd blebby pyrite.							
					356' 11½" – 357'2" Lighter fine grained band. Movement apparent at top – truncated narrow qtz vein							
					357' 6" ½" narrow band of felsic material with fine chalcopyrite and ? platy hematite " overall.							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE

Sheet No. 4

D.D.H. No. LGA 1

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
360' 0"	8' 8½	Epidiorite (Mottled, streaked appearance)			Mottle streaked epidiorite.							
365' 8½"	16' 3½"	Contaminated Epidiorite			Contaminated epidiorite. Blocks of breccia in epidiorite. The blocks of breccia contain qtzite, qtz schist, porphyry and basic fragments and much associated blebby pyrite is present within them. Up to 1% of blebby & disseminated chalcopyrite is present also within the breccia blocks. Matrix epidiorite is virtually barren.							
385' 0"	28' 0"	Epidiorite			Epidiorite with dissem pyrite & pyrite veinlets							
					403' 9" - 403' 10" } lighter areas of qtz/calcite veins							
					404' 2" - 404' 4" }							
					404' 7" - 405' 0" Banded qtz veined zone.							
					405' 0" — 405' 8½" Zone of rich dissem. pyrite							
					[illegible] & narrow veinlets.							
					406' 11" ¼" qtz vein.							
					407' 4" - 407' 6" 2" qtz vein							
					408' 3" ¼" qtz vein.							
413' 0"					413' 0" END OF HOLE.							

Drilled By	D.P.I.	Collar Co-ordinates	GR REF. 670/367	D.D.H. No.	DDGA 3
Date Started	18 6 74	Collar Elevation		Area	GARBH ACHAD
Date Completed	25·6 74	Orientation	Grid N.	Length	200 feet
from	m.	Recovery		Purpose	TEST I.P. ANOMALY + WEST ANOMALY
from	m.	Inclination	45°	Logged By	SJK + BK
from	m.	Corrected		Date	5·7·74

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
0	11"	PEAT										
11"	6'4"	BOULDER CLAY			Top 1' is mid-brown boulder-clay, few small fragments remainder comprises pebbles + boulders of grit, epidiorite + porphyry							
7'3"	1337"	HETEROGENEOUS METASEDIMENTARY SEQUENCE			(N.B. HQ core down to 9'9", then NQ) 7'3"-18'4" banded schistose zone comprising intercalated soft, grey, highly schistose, very fine-grained mudstone/siltstone & fine-grained, grey/white speckled, in parts calcareous, metasediment. Zone shows folds + convolutions + margins of "speckled" metasediment are rusty pink & highly silicified. Very weathered with abundant iron-staining. Strain-slip cleavage visible as at right-angles to bands along contacts. Mineralisation restricted to mainly blebby pyrite, a little disseminated, in the "speckled" metasediment. 18'4"-20'4" grey impure quartzite contaminated with occasional bands of dark greenish, fine-grained metasediment. At 19'2" is 2" square fragment of black, fine-grained material							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 2 D.D.H. No. DDCH 3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		METASED (Cont.)			20'4" - 25'5" dark green-black, fine-grained, chloritic, partly calcareous, metasediment; calcite on joints + few flattened pyrite "blebs". From 21'7" - 24'3" meshwork of qtzitic veins (no greater than ½" wide) with some associated green epidote. Abundant "blebby" pyrite + a reddish-brown, resinous, hard mineral with a creamy-white streak (garnet (spessartine) or sphene??)							
					25'5" - 32' highly folded + contorted section similar to 7'3" - 16'4" consisting of bands (not greater than ½" wide) of dark greenish chloritic schistose metased. in parts calcareous, + having pink, siliceous margins interbedded with soft, grey, highly laminated phyllitised siltstone mudstone/shale. Strain-slip cleavage on siliceous margins. Folds vary from symmetric to asymmetric ?? to incinal + axial plane direction approximately 75°-85° with some local variations. Joints/fractures parallel this direction. A little fine dissem. pyrite + "blebby" pyrite. "blebby" pyrite on joints.							
					32' - 34'2" unfolded very calcareous, soft grey/white "speckled" metased, much iron-staining especially on joints. A little "blebby" pyrite present.							
					34'2" - 46' 1" (N.B. much core-loss from							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 3

D.D.H. No. DDG4 3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
		METAMED (Cont)			approx. 36'8" to 38'6" due to softness of certain horizon). Mixture of light-grey qtzites with some intercalated muddy horizons and soft, light-green material with small (up to 2mm diam.) "globules" of qtzitic material (some form of grit?) Almost barren of sulphides except for a little "blebby" pyrite in top 2'.							
					40'1"-102' Rocks similar to above but vertical changes in lithologies very frequent. Consists of light-grey impure qtzites & gritty qtzites (rusty felspars present); soft grey/white speckled, often calcareous, schistose metased; soft, light-green metasediment; grey, highly laminated & sericitic-phyllitic mudstone (lamination at 60°-65°). Intercalations of all these lithologies occur sometimes with minor folding & faulting. & silicious margins developed on some horizons. Occasional talcy partings, some associated epidote & whole sequence highly fragmented due to numerous fractures & imposed schistosity. Limited sulphides, some zones having more "blebby" pyrite than others with the quartzites & the light-green metased. being generally barren. Pyrite occurs							

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MOND DRILL CORE RECORD Project: LOCH ACHADH Sheet No. 4 D.D.H. No. LOCH 3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
		Metased (cont.)			occasionally abundant.							
					53'6" - ¼" wide veinlet of "blebby" pyrite							
					55'9" - quite massive pyrite veinlet + epidote + qtz							
					56'7" - ¼" wide calcite veinlet + "blebby" pyrite							
					62'2"-62'6" - zone of shaley phyllite with much "blebby" pyrite in veinlets							
					87'3" - blebby pyrite + hematite staining?							
					91'6" - ½" wide massive pyrite veinlet							
					91'1"-93' - highly silicified zone, much pink qtzite, within metased							
					96'-100' - 4' of core missing.							
					101'7"-101'10" - zone with abundant "blebby" pyrite + thin veinlets within soft mudstone/phyllite.							
					102'-136'4" soft, grey, fine-grained, "spotted" graded? phyllitised siltstone/ash? On split surface spots not visible. Lamination at 75° to core direction + imposed schistosity at approx 30°-35° to core direction. Laminae show cremulations due to imposed schistosity. Some zones are tougher, more silicified + grey-green in colour. Crossbedding/graded-bedding indicates right way up but difficult to delineate. At 116'10" - 9½" long block of dark, basic material with many amygdales.							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 35

D.D.H. No. DDGA 3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
		METASED (Cont.)			filled with calcite + olivine. Margins highly chilled + running at approx. 60° to core direction.							
					Thin pyrite veinlets often associated with qtz, plus at 103'4" is associated "blebby" chalcopyrite. Occasional unmineralised calcite veinlets. Joints have pyrite usually.							
					12½'8" ½" wide qtz veinlet + "blebby" pyrite							
					130'6½" - 3½" zone of massive quartz + "blebby" pyrite.							
					136'4" - 139' grey-pink quartzite, much "blebby" pyrite on joints with associated massive chalcopyrite at 137'. Several thin pyrite veinlets.							
					139' - 140'10" banded zone of intercalated qtzite (psilitic) + grey/white "speckled" metasediment. Bands run at approx 70°. "Blebby" pyrite associated with thin qtz veinlets with scattered epidote.							
140'10"	59'2"	FOLIATED EPIDIORITE			Dark green/black fine to medium grained, foliated epidiorite with abundant tiny feldspar tagged, feldspar crystals which become more "stretched-out" in lower part of sequence. Foliation direction is approx 50°. Chlorite on joint surfaces							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, CARN ACHITH Sheet No. 6 D.D.H. No. DYA3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
		EPIDIORITE (Cont)			Pyrite disseminated throughout, often "blebby". "Blebby" pyrite on joints & associated with quartz & calcite veinlets plus much massive magnetite.							
					141'2" - ½ calcite veinlets about ¼" wide with blebby pyrite.							
					141'7" - joint with much "blebby" & crystalline pyrite.							
					142'7" - Several veinlets of calcite with blebby pyrite & massive magnetite.							
					145'6" - ¾" with calcite veinlet & "blebby" pyrite & magnetite.							
					146'7" - as above plus many thin (1mm or less) pyrite veinlets running parallel to each other at 45° Massive pyrite on joint & magnetite.							
					149'10" - 2" wide zone with massive & "blebby" pyrite, massive magnetite, & reddish-brown hematite?							
					153' - ⅛" wide qtz veinlet & blebby pyrite, massive magnetite & epidote.							
					153'8" - 154' Three ⅛" wide veinlets running at 90° to core with qtz, pyrite & massive magnetite.							
					155' - 10" long section with many qtz & calcite thin veinlets with assoc. massive & "blebby" pyrite & massive magnetite							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, CARBH ACHADH Sheet No. 7 D.D.H. No. DNGA-3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		EPIDIORITE (Cont)			156'10" - ¼" wide qtz vein + pyrite + magnetite							
					158'10" - ¼" wide qtz vein ~~xxx~~ 8" long running at 45° to core with "blebby" pyrite + associated magnetite							
					160'8" - 6" long section with much massive pyrite + magnetite associated with massive quartz + a little epidote.							
					164'8" - 7" long calcite veinlet ¼" - ½" long at 45°							
					165'9" - ½" wide calcite veinlet with blebby pyrite + a little massive magnetite.							
					166'3" - 167'7" - zone with many pyrite veinlets often associated with qtz + calcite. At 167'5" is 1" wide veinlet with qtz, massive magnetite + "blebby" pyrite.							
					169'4" ¾" wide qtz veinlet + "blebby" pyrite + massive magnetite							
					169'9" - calcite veinlet + pyrite + magn.							
					170'7" - qtz " " " "							
					171'3" - massive pyrite in ragged veinlets on joints. Associated qtz + magnetite							
					172'-172'6" - section with abundant thin qtz veinlets with pyrite + magnetite; also thin massive pyrite veinlet At 172'6" is ½" wide veinlet at 80°							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 8 D.D.H. No. DLCA3

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		EPIDORITE (Cont.)			of massive magnetite..							
					178'3" - ¼" wide qtz veinlet with a little pyrite & magnetite.							
					188'6" - joint with "blubby" pyrite & some perfect crystals.							
					197'8" - 5" wide section of qtz veinlets (no wider than ¼") with massive pyrite & a little magnetite.							
200'	–				END OF HOLE							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, CARN ACHADH

Sheet No. 2

D.D.H. No. DDH 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		PORPHYRY (CONT.)			felspars. Mainly very fine pyrite some associated chalcopyrite.							
					13'4" - 14'6" - qtz-mica-felspar porphyry medium grained with fine, disem pyrite & some associated chalcopyrite; occasional thin stringers of pyrite.							
					14'6" - 16' - purplish qtz-mica-porphyry with some felspar. At 15' is small xenolith of epidiorite (1" square)							
					16' - 21' orange pink-purple mica-felspar-porphyry with subsidiary quartz							
					21' - 27'5" - pinkish qtz-mica-porphyry very rich in qtz with a little felspar.							
					27'5" - 33'4" - mainly a mica-felspar-porphyry with subsidiary qtz in parts & some areas finer grained than others.							
					33'4" - 36'6" qtz-felspar-mica porphyry, patches rich in qtz.							
					36'6" - 45'10" - at 36'6" is a contact running at approx 10° between the above porphyry & a qtz-mica porphyry lacking felspar (mixing of 2 magmas?) Orange purple in colour with last 2' containing some felspar phenocrysts Mineralisation - disem pyrite & some "blebby pyrite; thin stringers of pyrite: pyrite on joints. Occasional disem chalcopyrite. Thin qtz veinlets radiating through							
					45'10" - 50'7" block of holocrystalline orange purple material (xenolith?) Much pyrite							

DP1 670/373

DDGA 4

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DIAMOND DRILL CORE RECORD

Date Started	4.6.74	Collar Elevation	
Date Completed	17.6.74	Orientation	Grid N.
from	m.	Recovery	
from	m.	Inclination	45°
from	m.	Corrected	

Project: LOCH FYNE

Area	GARISH ALMADH
Length	400'
Purpose	TEST IP + GEOCHEM ANOM
Logged By	S.J.K.
Date	24.6.74

METRES From	Represents	GEOLOGICAL LOG Rock Type	Graphic Log	Intersec. Angle	Description	ASSAY RECORD Sample No.	From	Length	Rec.
0	1'2"	PEAT							
1'2"	1'4"	PEAT / BEDROCK			Mixture of rotten, fragmental porphyry + peat.				
2'6"	67'	PORPHYRY			Heterogeneous mixture ranging from very				
		THIS core down to			coarse grained mica-felspar porphyry with felspar				
		10'5" then NQ			phenocrysts up to ¼" diameter + often highly				
					kaolinised, to purplish porphyry sometimes				
					almost completely bereft of felspar but with				
					abundant quartz phenocrysts up to ¼" diameter				
					— a qtz-mica-porphyry. Very fine disseminated				
					pyrite throughout often with associated chalcopyrite				
					small stringers of pyrite + chalcopyrite +				
					occasionally veinlets of pyrite with associated				
					chalcopyrite coatings of pyrite on joint/fracture				
					surfaces often with a little dusting chalcopyrite.				
					2'6"-12'8" coarse-grained mica-felspar				
					porphyry with holocrystalline purplish groundmass				
					which kaolinised felspar, some qtz blebs here +				
					there + cut by thin qtz veinlets. Pyrite on				
					joints disseminated + in thin stringers;				
					dusting chalcopyrite at 9'6" + also scattered				
					through this section. At 11' = arsenopyrite (?)				
					12'8"-13'4" — qtz-mica-porphyry lacking				

DPI

670/373

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DIAMOND DRILL CORE RECORD

DDGA 4

Date Started	4 6 74	Collar Elevation	
Date Completed	17 6 74	Orientation	Grid N.
from	m.	Recovery	
from	m.	Inclination	45°
from	m.	Corrected	

Project: LOCH FYNE

Area	GAELISH ARGYLL
Length	400'
Purpose	TEST IP + GEOCHEM. ANOM
Logged By	S.J.K.
Date	24 6 74

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
0	1'2"	PEAT										
1'2"	1'4"	PEAT / BEDROCK			Mixture of rotten, fragmental porphyry + peat.							
2'6"	6'1"	PORPHYRY			Heterogeneous mixture ranging from very							
		[NO Core down to			coarse grained mica-felspar porphyry with felspar							
		10'5" then NO]			phenocrysts up to ½" diameter + often highly							
					kaolinised, to purplish porphyry sometimes							
					almost completely bereft of felspar but with							
					abundant quartz phenocrysts up to ¼" diameter.							
					— a qtz-mica-porphyry. Very fine disseminated							
					pyrite throughout often with associated chalcopyrite							
					small stringers of pyrite + chalcopyrite. +							
					occasionally veinlets of pyrite with associated							
					chalco; coatings of pyrite on joint/fracture							
					surfaces often with a little dusem chalcopyrite.							
					2'6"-12'8" coarse-grained mica-felspar							
					porphyry with holocrystalline purplish groundmass							
					much kaolinised felspar, some qtz blebs here +							
					there + cut by thin qtz veinlets. Pyrite on							
					joints disseminated + in thin stringers;							
					dusem chalcopyrite at 9'6" + also scattered							
					throughout this section. At 11' = disseminated (?)							
					12'8"-13'4" — qtz-mica-porphyry, fine grained							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 3 D.D.H. No. DGA 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Structural Log	Core Angle	Description	Sample No.	From	Length	Rec			
		PORPHYRY (cont.)			smeared on joint planes. Imposed foliation at 25-30°. Last 4" highly bleached, many qtz veinlets + ¾" calcite veinlet at 80'7".							
					50'7"-55'7" coarse-grained mica-felspar porphyry with kaolinised felspars which are often zoned + have a greenish hue in centre.							
					55'7"-60'7" orange-purple coloured medium-grained porphyry which is felspar-rich at top + base + qtz-rich in central area. Much pink felspar along joint surface at 55'7"-56'5" (potash metasomatism)							
					60'7"-70' heterogeneous section in parts contaminated, some zones rich in large white felspars, others very holocrystalline with a little mica, others more grey granitic-looking. Numerous calcite stringers + qtz veinlets up to ¼" wide; some qtz fragments up to ¾" diameter, at 69'10". Thin pink felspar veinlets with pyrite.							
70'	23'1"	"GRANITE" (?) PORPHYRY			Generally medium-grained grey in colour with abundant mica (at 72'5" mica shows vague preferred orientation at 60°-70°). Rare Numerous thin qtz, calcite + potash felspar veinlets often with associated pyrite; diss. pyrite with occasional chalcopyrite + also thin stringers. Some pyrite on joints/fractures with occasional associated chalcopyrite. The white							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 4 D.D.H. No. DDGA 24

METRES From	METRES Represents	GEOLOGICAL LOG Rock Type	Graphic Log	Intersec Angle	Description	ASSAY RECORD Sample No.	From	Length	Rec
		(QUARTZ) PORPHYRY			white grey feldspars are generally highly kaolinised + weathered out (especially between 75'9" & 87'10") At 81' is 4" section very potash-feldspar-rich with pink feldspar veinlets. Much pyrite here in stringers & veinlets				
					87'11"-93'1" contamination with fragments of epidosite + quartzose material. Lower 10" cut by many ¼" calcite veinlets with pyrite.				
93'1"	39'	CONTAMINATED MICA-FELSPAR PORPHYRY			Colour varies from grey to grey-pink to grey-purple depending on groundmass and amount and distribution of feldspar + qtz "phenocrysts". Very heterogeneous collection with mica porphyry groundmass in which are embedded distinct				
				ang. to	fragments from <¼" diameter up to 6-8" long of dark, fine grained epidosite quartzose material, and granitic looking material. Many qtz veinlets up to ½" wide occur together both thinner ones of calcite + qtz both with fine disseminated pyrite + occasionally chalcopyrite often epidote associated. Joint surfaces having coating + sometimes "blebby" pyrite - occasional specks of chalcopyrite associated. Fine disseminated pyrite throughout + some chalco. 93' - qtz vein ½" wide at maximum width with highly contorted margins + disseminated chalco with thin short pyrite stringers.				

Canadian Gold Fields Limited
DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 5 D.D.H. No. DDGA 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec. Angle	Description	Sample No.	From	Length	Rec.			
		CONTAMINATED			99'4"-103' Var							
		TOURMALYRY (Cont.)			105'2" : 7" long joint coated with pink felspar.							
					108'11"-110'10" dense meshwork of thin qtz veinlets with associated pyrite.							
					113'7" joint surface with "Hebby" pyrite & chalcopyrite							
					127'1"-132'1" grey granitic-looking less contaminated material with many thin quartz-felspar veinlets with associated pyrite. Abundant qtz.							
132'1"	112'9"	LAVA/PILLOW LAVA/ METASEDIMENT SEQUENCE (?)			132'1"-135'7" highly contaminated zone with fragments of epidiorite/lava(?), porphyry & green metasediment in a light grey-green fine-grained groundmass. Size of fragments - up to several inches across. Almost barren of mineralisation except for a little dissem pyrite.							
					136'-136'10" - brecciated zone, interstices filled with calcite - hydrothermal brecciation?							
					From 135'7" onwards is a mixture of dark-grey very fine grained amygdaloidal lava/pillow lava(?) with light-grey-green fine-grained chloritic metasediment (?) occurring throughout the sequence. However no definite zones can be delineated. Throughout the sequence are (rounded) amygdales which up to 176' are small (<<1 m.m) but then tend to increase in size reaching 5mm diameter in parts. Colours generally dark green greenish & probably							

Associated Gold Fields Limited

DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 56

D.D.H. No. [illegible]

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Intersec Angle	Description	Sample No.	From	Length	Rec.			
		LAVA / METASED. (Cont.)			filled with epidote or zeolite. Some amygdales have dissem. pyrite in their centres. Throughout sequence are black, dense, thin, often minfaulted / veinlets + contorted up to ½" wide, occasionally with associated pyrite on margins. Composition ?. Very finely dissem. pyrite throughout sequence with occasional chalcopyrite. Numerous qtz + calcite veins + veinlets often with dissem. + "blubby" pyrite sometimes associated chalcopyrite + cuprite (?) Thin mineralised stringers of pyrite ; chalcopyrite ; pyrite + some chalcopyrite on joint surfaces. occasional reddish-brown cuprite(?). Usually epidote is associated with the veins + veinlets. Occasional Talcy partings in sequence.							
					154'6" 1" wide blue-grey veinlet at 50-55° to core direction with cuprite ? + narrow pyrite veinlets							
					158'11" ¼" veinlet with "blubby" pyrite + chalcopyrite associated with red-brown cuprite ? + calcite ; thin stringers from this veinlet with chalco, pyrite + cuprite							
					162'2"-163'4" zone rich in pyrite stringers + veinlets with associated epidote ; also dark-grey very hard veinlets - appear qtzitic.							
					166'4" calcite veinlet + associated cuprite ?							
					172'1" "blubby" pyrite.							
					173-173'6" apparently lebpathised zone with grey-green metasediment Associated pyrite + epid							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 7 D.D.H. No. DDGA4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Inclination Angle	Description	Sample No.	From	Length	Rec.			
		LAVA / METISED (cont.)			172'1" "blebby" pyrite							
					175'6" coating of cuprite? on joint/fracture surface + "blebby" pyrite.							
					177' smear of cuprite? on joint + in a quartz veinlet.							
					178' 1" wide qtz vein at 45° to core with "blebby" pyrite, rock fragments, tittle cuprite? + calcite.							
					181'6" 1½" wide qtz vein with dissem. pyrite + a coating of cuprite? + pyrite on adjacent joint.							
					186'6" ¼" wide qtz vein with "blebby" pyrite.							
					192'9" varied ~~wit~~ width, up to 1½" of qtz with pyrite stringers + associated chalcopyrite. A little cuprite in cross-cutting calcite stringer.							
					193'-2" wide qtz veinlet with a little dissem pyrite. Adjacent areas have many thin calcite veinlets							
					195'6" ¼" pyrite veinlet with associated chalco							
					200'-3" wide zone with talcy partings							
					200'6" 1½" wide qtz vein + rock fragments with a tittle dissem. pyrite.							
					201'8" — as above							
					204'-205'9" light green very fine-grained zone rich in amygdales + many fine black acicular mineral in groundmass (amphibole?). Thin pyrite stringers + veinlets present.							
					216'-217' fragmented zone with dissem pyrite in interstices between (hydrothermal breccia?)							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH Sheet No. 8 D.D.H. No. DDGA 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Inclined Angle	Description	Sample No.	From	Length	Rec.			
		LAVA/METASED (Cont.)			229'10" 3" width of quartzite + many thin qtz veinlets; a little dissim. pyrite + chalcopyrite.							
					234'5" - 235'3" zone with large sub-rounded amygdales up to ¼" diameter.							
					236'8" 8" long section, buff-coloured, no sharp contact, with many small amygdales.							
					237'10" - 238'2" light-green block with amygdales + acicular crystals (as before)							
					238'3" - 238'7" - zone of many calcite veinlets							
					239'2" - 244'10" - basaltic looking rock, grey-black in colour, fine-grained, with small white plag crystals + small amygdales + some olivine? Cut by many, thin calcite veinlets. Sparse dissiminated pyrite.							
244'10"	155'2"	CONTAMINATED MICA-FELSITIC PORPHYRY			Varies from medium to coarse-grained grey to purple porphyry with white plag felspar phenocrysts often highly kaolinised, with platy mica + occasional quartz. Contaminated throughout the sequence with coarse pink porphyry fragments (i.e. 2 ages of porphyry), quartzose material, dark epidosite? + in parts green/black serpentinite. In parts certain zones rock are batten in mica with a greenish-grey felspar. Other zones are more grey, granitic-looking with a more equigranular groundmass. Abundant qtz veinlets, usually mineralised +							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GLEN ACHADH

Sheet No. 9

D.D.H. No. DDH 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Inclined Angle	Description	Sample No	From	Length	Rec			
		CONTAMINATED PORPHYRY (cont.)			often have a thin calcite veinlet running through their centre (2 ages of veinlets?). Very finely disseminated pyrite throughout, occasionally "blebby", sometimes associated chalcopyrite. Thin stringers of pyrite + occasional veinlets present. Pyrite on joint surfaces with occasional chalcopyrite. Thin pink felspar veinlets here & there.							
					247'10" brecciated zone (hydrothermal?) interstices filled with quartz, some calcite.							
					257' - ½" wide quartz vein + blebby pyrite.							
					268'6" 1" wide qtz veinlet + thin calcite veinlet within.							
					275'8" 7" long fragment of quartzitic material mixed with porphyry - dissem pyrite + chalcopyrite.							
					281'11" - ¼" wide qtz vein + chalco stringer with pyrite							
					283'9" 1" wide qtz vein adjacent is serpentinite fragment.							
					284'6"-285' highly silicified zone with pinkish porphyry, associated dissem pyrite + chalco.							
					286'7" 2" wide zone at 90° to core with dissem. pyrite, veinlets of a reddish-brown soft mineral (aspirite/hematite?) & fragments of serpentinite + porphyry.							
					290'2" thin chalcopyrite stringer + associated qtz							
					293'-297'7" - buff-coloured contaminated porphyry with microfaulting of thin qtz veinlets in first 18". Dissem. chalcopyrite at 293'3" & 295'3". Barren of mica, much dissem. pyrite							

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DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 10

D.D.H. No. DDGA 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graphic Log	Inclined Angle	Description	Sample No.	From	Length	Rec.			
		CONTAMINATED			299'10" ¾" wide brecciated zone + dissem. pyrite.							
		PORPHYRY (Cont.)			300' ¾" wide qtz vein + dissem. pyrite.							
					305'-306'5" - zone barren of mica.							
					305'7" Thin chalcopyrite stringer							
					310'9" ¼" wide qtz veinlet + blebby pyrite + chalco.							
					312'8" 1" square green/black serpentinised fragment.							
					315'7" 2" wide zone of highly silicified porphyry with dissem. pyrite + some chalcopyrite.							
					317'3" ¼" wide qtz vein at 75° to core with dissem pyrite + associated chalcopyrite.							
					317'8"-317'11" - pink felspar-rich zone cut by calcite + qtz veinlets; some dissem chalco.							
					318'6" ¾" wide vein consisting of grey qtzitic material on margins with massive qtz in centre + fine brecciated material (hydrothermal channel?). Dissem pyrite + chalco.							
					321'4" - ½" wide qtz vein at 85° to core.							
					321'9" ½" wide qtz vein at 70° with thin calcite veinlet in centre.							
					324'2½" - thin qtz veinlet + abundant chalcopyrite							
					327'5" - 327'7" ½ wide qtz veinlet + dissem. pyrite							
					329' blebby pyrite + chalco. on joint surface.							
					329'7"-330'5" highly felspathised pink zone.							
					334'7" 1½" wide qtz vein at 55-60° with thin pyrite stringers + dissem pyrite. 333'9" -335'6" = zone with abundant thin qtz veinlets parallel to above vein.							

Consolidated Gold Fields Limited
DIAMOND DRILL CORE RECORD

Project: LOCH FYNE, GARBH ACHADH

Sheet No. 11

D.D.H. No. DDGA 4

METRES		GEOLOGICAL LOG				ASSAY RECORD						
From	Represents	Rock Type	Graph. Log	Inclined Angle	Description	Sample No.	From	Length	Rec.			
		CONTAMINATED PORPHYRY (cont.)			349'9"-354'5" buff-coloured porphyry depleted in mafics with soft creamy-white felspar phenocrysts. Fine disseminated pyrite with dense zone of qtz veinlets from 352'6"-353'6" up to ¼" wide. 355'6" 3/16" wide qtz vein + perfect qtz crystals + several tiny (<1mm) pyrite cubes. 354'3"-355'11" - buff-coloured, mafic-barren porphyry, highly silicified in lower 6". 360'10"-364' contaminated grey porphyry, lacking mica, with fragments of coarse orange-brown felspar porphyry. Abundant quartz + calcite veinlets with disseminated pyrite, some stringers, + occasional chalcopyrite. 367'10" ⅛" wide qtz/calcite veinlet + "blebby" pyrite + chalcopyrite. 370'5" ⅛" wide qtz vein + abundant blebby pyrite. 370'7"-371'1" - large fragment of white-grey streaked calcareous grit? with much disseminated pyrite + some thin stringers. 372'4" cupsite? within fragment of qtzite. 372'6" thin qtz vein with "blebby" pyrite + a little "blebby" chalcopyrite. 375'2" ½" wide qtz vein + calcite. 377-400' highly fragmented + kaolinised contaminated mica-felspar-porphyry with low core recovery. At 383'11" ¼" qtz veinlet + thin pyrite stringer. Occasional chalco "speck".							

Consolidated Gold [illegible]

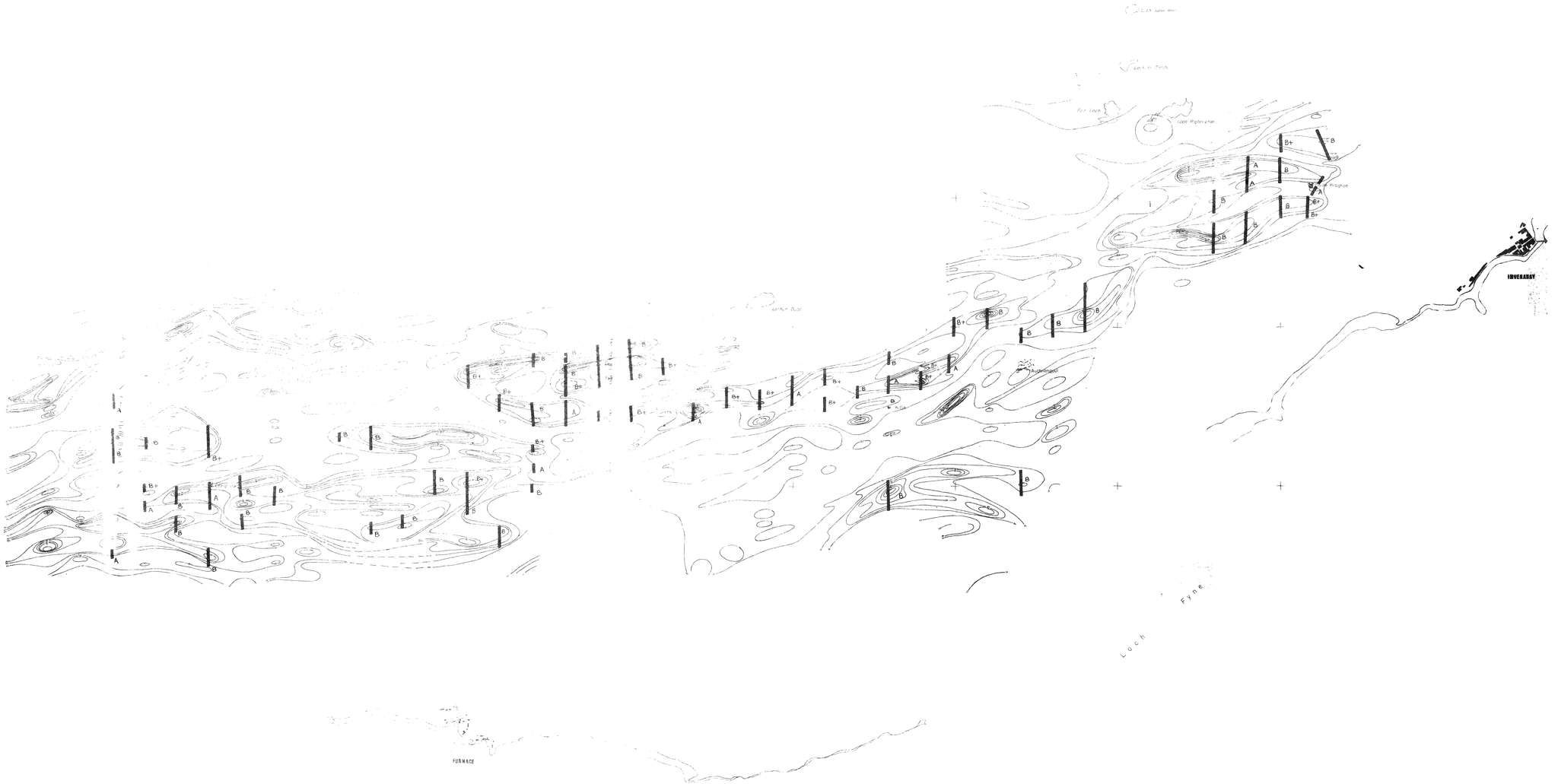
EXPLORATION

Project: LOCH FYNE

Area: ARGYLL & CUMLODDEN ESTATES

Title: LOCATION OF GARBH ACHADH GLEN ARAY, ALLT-AN-T-SITHEIN & BRANNIE BURN ANOMALOUS AREAS & ANOMALIES A — L.

Drawing No.	O.S. Map No: 52 & 53
Fig 10.	Scale: 1" = 1 mile
	Date:
	Revisions



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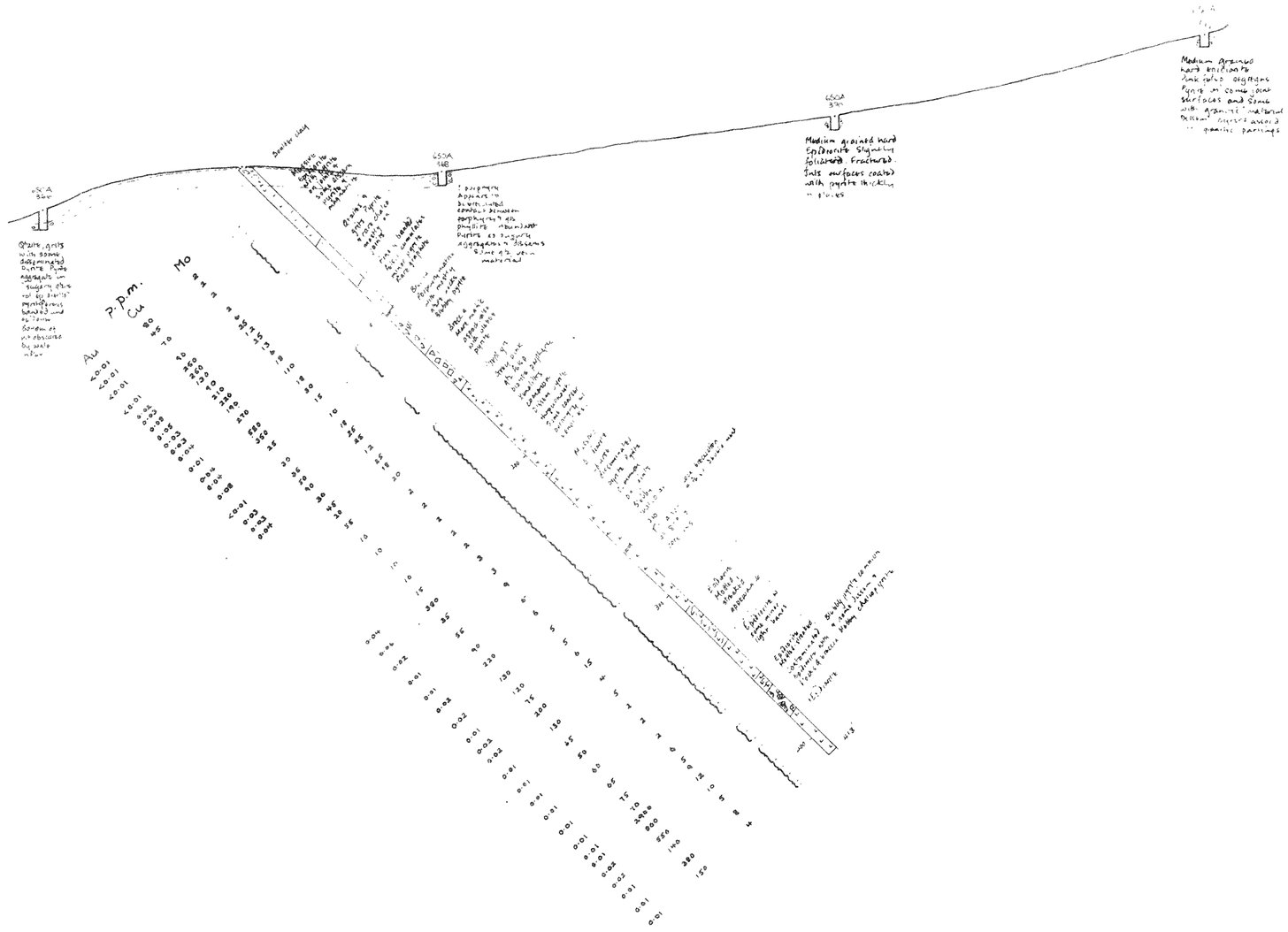
EXPLORATION

Project:	LOCH FYNE
Area:	MINES AND INTERMINE AREA
Title:	Loch Fyne Chargeability Contours LOCATION OF PRIORITY A, B+ and B ANOMALIES
Drawing No.	FIG. 5
O.S. Map No:	Argyllshire O.S.
Scale:	6 " = 1 mile
Prepared by:	A.W.
Date:	July 1972
Drawn by:	F.D.
Disclosure:	Anomaly location depicts EM

COLOUR KEY — milliseconds

	>100
	90 - 99
	80 - 89
	70 - 79
	60 - 69
	50 - 59
	40 - 49
	20 - 39
	10 - 19
	<10

B+ ANOMALY LOCATION AND RATING



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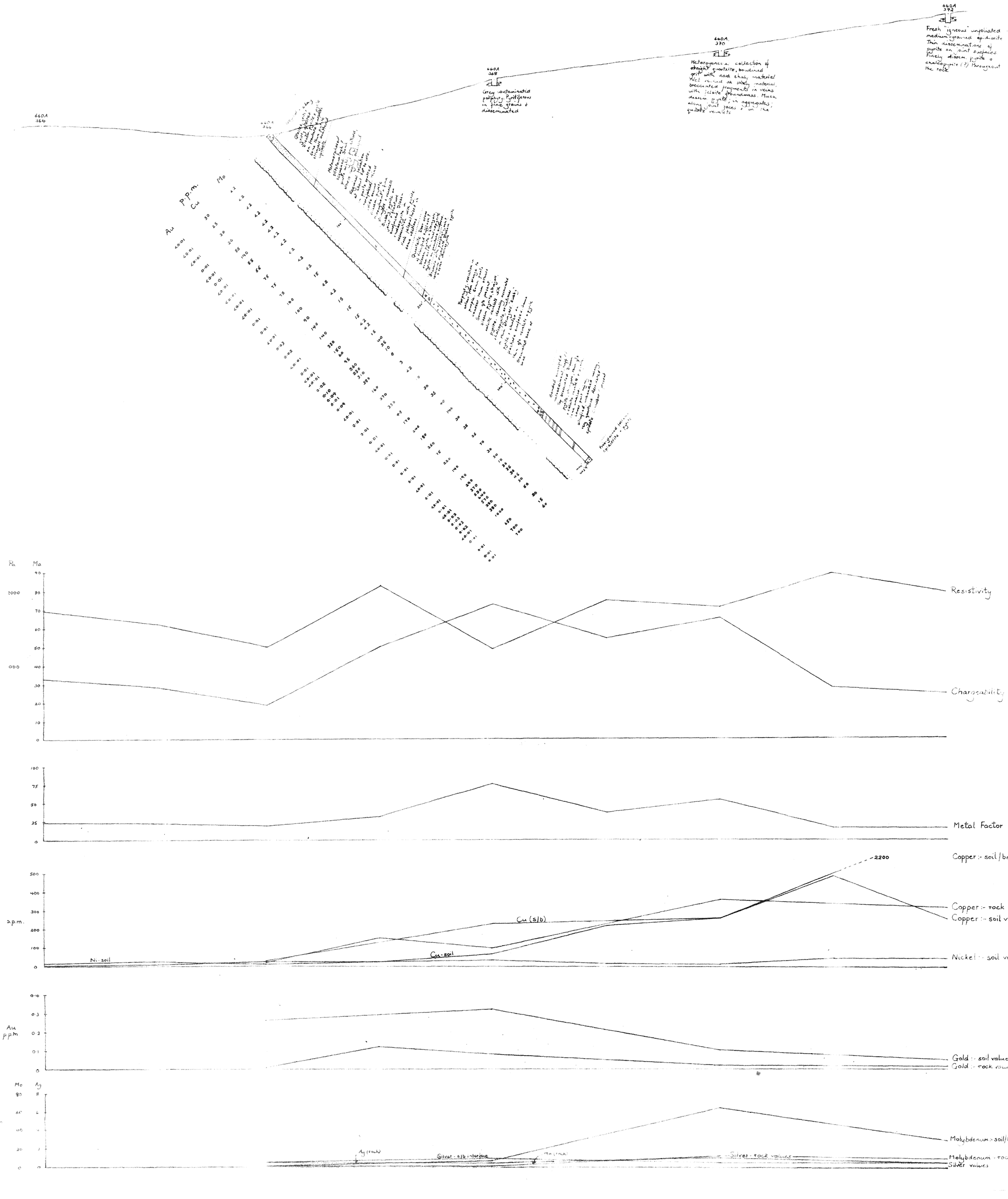
EXPLORATION

Project:	LOCH FYNE
Area:	GARBH ACHADH
Title:	DIAMOND DRILL HOLE G.A.1 Geological section; analytical results; geophysical and geochemical profiles.
Drawing No.	Fig. 12.
O.S. Map No.	—
Scale:	1/500 feet
Prepared by:	A.W.
Date:	
Drawn by:	S.J.K.
Revisions:	

A24



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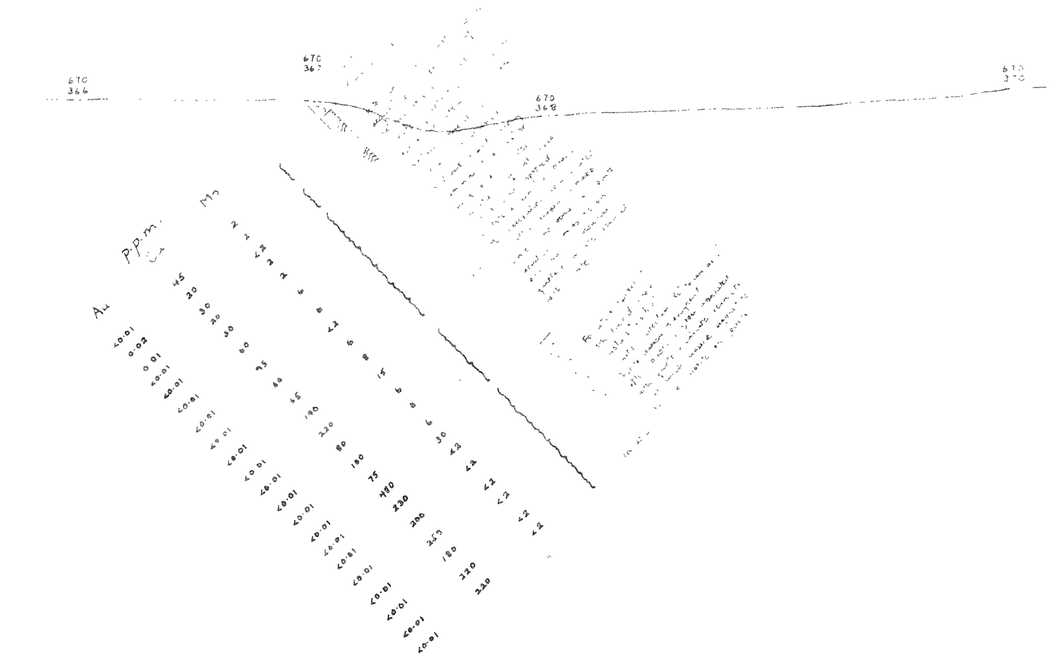
EXPLORATION

Project:	LOCH FYNE
Area:	GARBH ACHADH
Title:	DIAMOND DRILL HOLE G.A.2 Geological section; analytical results; geophysical and geochemical profiles
Drawing No.:	FIG. 13
O.S. Map No.:	
Scale:	1/500 feet
Date:	
Revisions:	
Prepared by:	A.W.
Drawn by:	S.J.K.
	AE4



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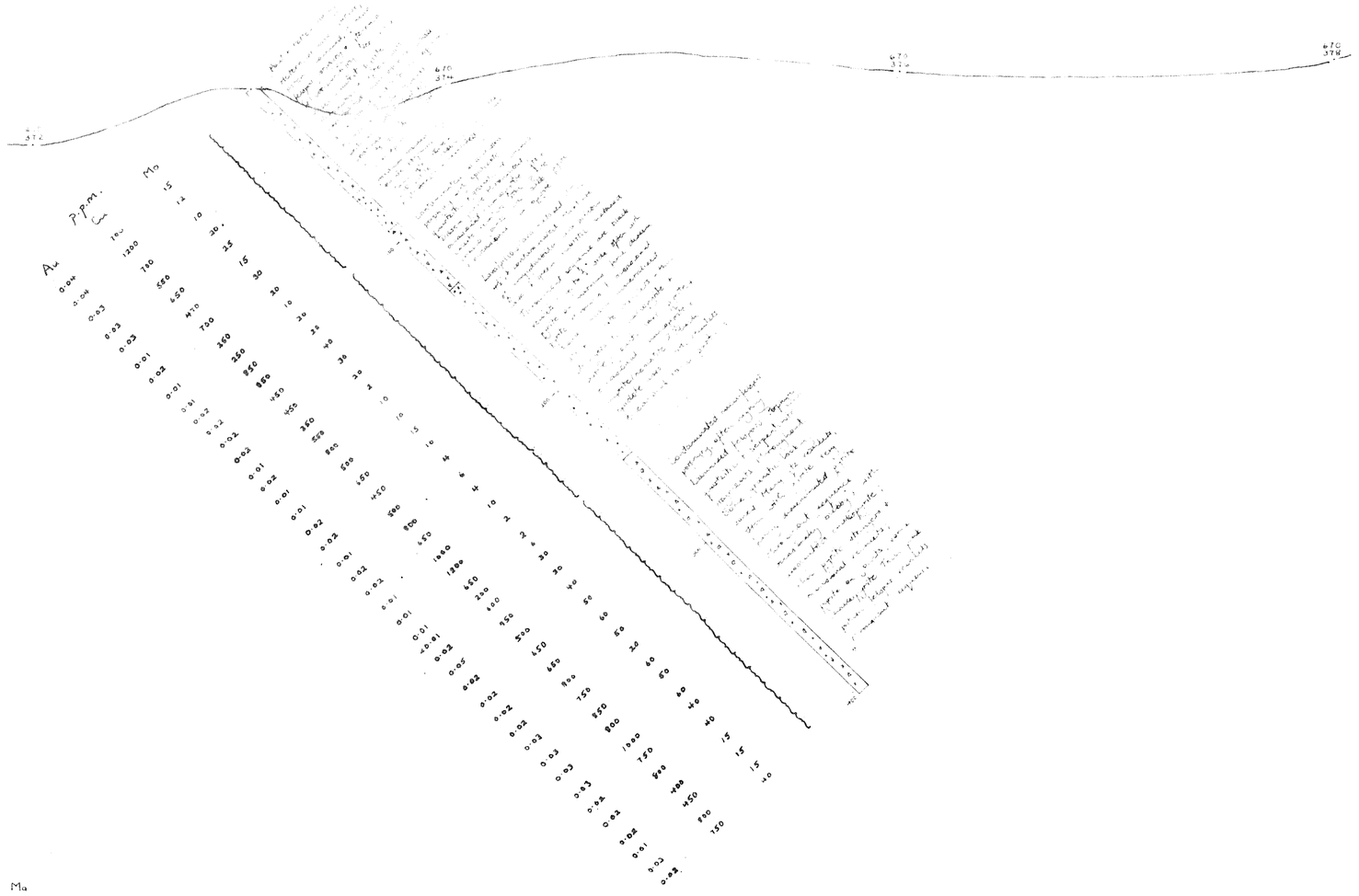
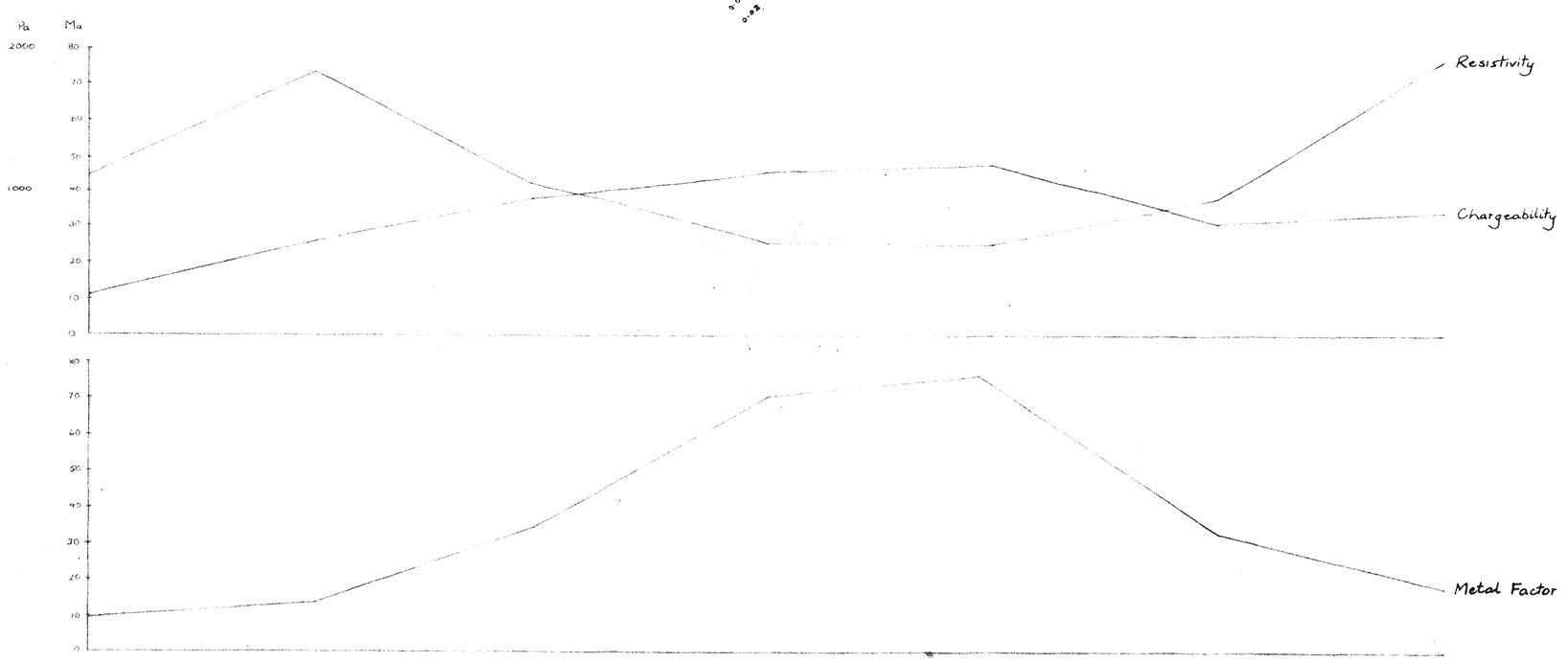
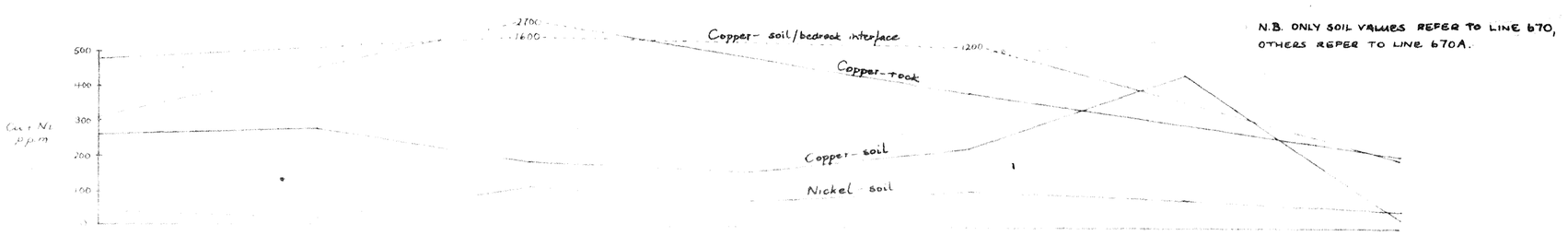
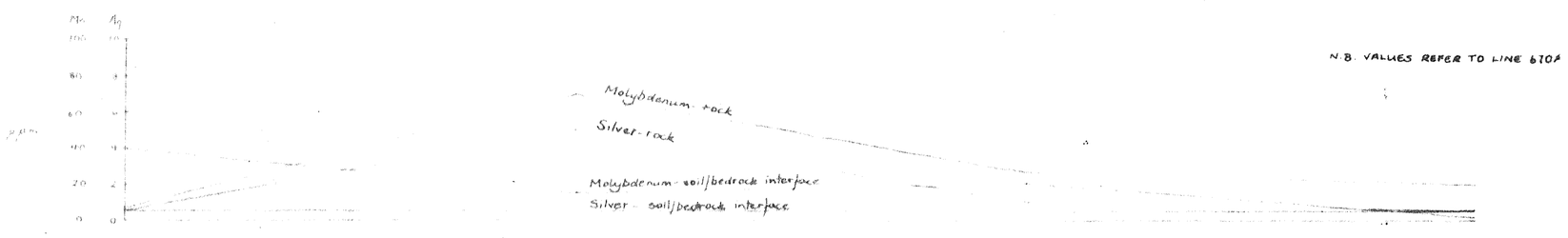
EXPLORATION

Project:	LOCH FYNE
Area:	GARBH ACHADH
Title:	DIAMOND DRILL HOLE G.A.3 Geological section; analytical results; geophysical and geochemical profiles.
Drawing No.	FIG. 11
O.S. Map No.	
Scale:	1/500 feet
Prepared by:	A.W.
Date:	
Drawn by:	S.J.K.
Revisions:	









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EXPLORATION

Project:	LOCH FYNE
Area:	GARBH ACHADH
Title:	DIAMOND DRILL HOLE G.A.4 Geological section; analytical results; geophysical and geochemical profiles.
Drawing No.	FIG 15.
O.S. Map No.	
Scale:	1/500 feet
Prepared by:	A.W.
Date:	
Drawn by:	S.J.K.
Revisions:	