

STATEMENT 1.

PM2

Box 16

STATEMENT OF GEOLOGY AND EXPLORATION PROPOSALS FOR
PARYS/MONA PROJECT, STAGE 2.

1. The General Geology has been previously described in our proposals for Stage 1.
2. Diamond Drilling Programme (IM 9 to IM 16) See Enclosed Plan.

A. Coronation Zone.

Diamond drill hole 7 was located to test this zone at depth and a skeleton log to a depth of 811 feet is given in the previous section of this submission. The core contains sufficient chalcopyrite and galena to be of further interest and it is proposed to drill three additional holes, as follows.

DDH No. 14. (See enclosed plan).

Bearing 165° , inclination -65° , depth 1000 feet. Will test the down-dip extensions of the sulphide mineralisation located in DDH 7.

DDH No. 15.

Bearing 165° , inclination -65° , depth 1000 feet. Will test the westerly extension of the mineralisation located in DDH 7.

DDH No. 16.

Bearing 165° , inclination -65° , depth 1000 feet. Will test the easterly extension of the mineralisation located in DDH 7.

Footage in Coronation Zone Area.

Three holes totalling 3,000 feet.

B. Southern Felsite - Southern Shale Contact (Mona Mine).

The southern felsite - southern shale contact is the subject of discussion and arguments have developed as to whether the southern felsite is either a faulted or folded portion of the northern felsite, or whether it is a distinctly different unit. Other discussions have been put forth concerning the southern shales with respect to the shales occurring within the Open Pit and Bluestone areas. Current opinion is supported by fossil evidence which shows fairly conclusively that the southern shales are Ordovician, as opposed to the Silurian shales occurring in the mineralised zones of the Open Pit.

Mineralisation on the surface is practically absent in the southern felsite but there has been no serious testing of this area.

DDH No. 9.

Bearing 160° , inclination -60° , depth 500 feet.

This hole will cut the footwall of the southern felsite and be continued into the hanging wall of the southern shales to test for possible mineralisation. It will also test the I.P. anomaly that occurs in this area as well as an earlier E.M. anomaly that was recorded some 15 years ago during the time that British Metals Co. Ltd. were examining the area.

Footage in southern felsite zone.

One hole totalling 500 feet.

C. Hillside Opencast Area. (Mona Mine).

The Hillside Open Cast contained the reputedly rich "bluestone" mineralisation in the Clay Shaft and Black Rock holes. The Clay Shaft and the Black Rock lodes were apparently of major dimensions in this area and were mined to a depth of approximately 200 feet. No drill holes have tested below this depth, possibly because of the occurrence of old workings on the Carreg-y-dol mineralised zone to the north. There is, however, an area in the Carreg-y-dol zone between the Charlotte and Francis Shafts extending to the Golden Venture Shafts, a distance of some 800 ft., in which no workings exist. It is in this area that it is possible to position a hole so as to test these lodes at depth.

DDH No. 10.

Bearing 160° , inclination -65° , depth 1200 feet. This hole will test the following:

- a. The possible easterly extensions of the Clay Shaft and Black Rock lodes. CIGOL Hole 2 (9700N 10800E) was drilled in this area and disseminated sphalerite, galena and pyrite were intersected in Silurian shale over a core length of 28 feet, at a vertical depth of 150 feet below collar. This section assayed 3.31% combined lead plus zinc with 2.40 ozs. per ton silver and, at the time of drilling, it was thought that this mineralisation was probably an attenuated extension of that mined in the Hillside Open Cast some 500 feet to the west. This DDH 10 will test the down-dip extension of this intersection at the lower depth of approximately 500 feet below collar level.

- b. The hole will be continued to test the complete section of the Silurian shales which exist between the two felsites. Previously CIGOL hole 2 had tested this area at a higher level.
- c. It will test, at approximately minus 900 ft. below sea level, the contact zone between the southern felsite and the Silurian shales. CIGOL hole 2 contained some intersections of pyrite at this contact which was intersected at minus 650 feet below sea level. Boreholes 9 and 10, in conjunction with CIGOL hole 2 will provide a cross-section through the felsite/sediments in this area.

Footage in Hillside Opencast Area.
One hole totalling 1200 feet.

D. Bluestone Shaft Area (Mona Mine).

The Bluestone Shaft was put down in a lense of reportedly high grade sulphide mineralisation that occurred several hundred feet along strike to the east of the Clay Shaft and Black Rock Lodes.

DDH No. 11.

Bearing 180° , inclination -65° , depth 1000 feet. This hole will test the area outlined above.

Footage in Bluestone Shaft Area.
One hole totalling 1000 feet.

E. Marquis - Henwaith Zone East. (Mona Mine).

In order to test the easterly portion of the Parys/Mona property two holes will be required, as located on the accompanying plan.

DDH No. 12.

Bearing 160° , inclination -60° , depth 1200 feet.

DDH No. 13.

Bearing 160° , inclination -65° , depth 1200 feet.

Footage in Marquis - Henwaith Zone East.
Two holes totalling 2400 feet.

3. Summary of Diamond Drilling Programme - Stage 2.

A.	Coronation Zone:	3 holes	totalling	3,000 feet
B.	Southern Felsite Zone:	1 hole		500
C.	Hillside Opencast Area:	1 hole		1,200
D.	Bluestone Shaft Area:	1 hole		1,000
E.	Marquis-Henwaith Zone:	2 holes		2,400
				<hr/>
				8,100 feet
				<hr/> <hr/>

Post-4d.

October 1971

Box 16.

PM 1

STATEMENT 1

STATEMENT OF GEOLOGY AND EXPLORATION PROPOSALS FOR PARYS/MONA
PROJECT, STAGE 1

1. General Geology

The project area contains a succession of Ordovician volcanic rocks (felsite) which have been folded into synclinal structure, overturned to the north; within the syncline Silurian shales occur (See Map No. 1).

Extensive copper mineralisation has been worked in the past, largely in the 19th Century, on the northern edge of the northern limb (the Carreg-y-doll zone) and since about 1950 this zone has been tested by diamond drilling. Several millions of low grade copper mineralisation have been outlined but the grade is too low for underground extraction; the possibilities of open-cut working does not exist in this particular zone and in this project this area is not being further tested.

Lead-zinc mineralisation, with subsidiary copper, is known in several other areas and the purpose of this project is to evaluate these zones.

2. Diamond Drilling Programme

The areas that have been selected are the following (Map No.1):

- A. The Morfa-du area;
- B. The Coronation zone;
- C. Western and Eastern Open Pit area;
- D. Bluestone-Marquis-Henwaith area.

These areas are shown on the attached map. The areas that will be discussed in this proposal will be the Morfa-du, the Coronation, and the Western Open Pit area. Studies are continuing on the remainder.

It should be noted in this report that the term "Bluestone Ground" means silicified or cherty black shale

containing

containing sulphides of lead, zinc, copper and silver either in disseminated or massive form: volcanic rocks are usually intercalated.

A. Morfa-Du Area (Map No. 1, Nos. 2, 3, and 4)

Morfa Du is the name commonly given to the most westerly workings on the Anglesey property. The area can be broken down into three zones designated as follows:

- a) White Rock;
- b) Morfa-du Mine;
- c) Chapel.

A program one of drilling was carried out in this area in the past and promising mineralization was cut in numerous holes, however there was no correlation between the higher grade sections that were cut or the extensive low grade zone that appears to enclose them. This was especially true of the high grade area between D.D.H. No. 10A and No. 13 for attempts at correlation between the holes met with no success.

Recent geological mapping indicates that the general trend in this area is roughly east-west (080°) and is conformable to the regional trend that is evident throughout the whole mineral belt. Re-logging and studies of the previous boreholes also show that the general trend in the area is roughly east-west and indicates most of these holes were drilled parallel or subparallel to the formations and down the dip or plunge of the formations: examination of the core in many old holes indicates banding and bedding parallel or subparallel to core axis. In the area of Morfa-du there are numerous north-south tear faults associated with thrusting which has off-set and staggered the formations in the general north-south direction, especially the White Rock zone, giving the impression that the zone is trending north-south. There is also regional schistosity in the area as well as the local schistosity which has confused the overall picture.

The three areas are discussed separately below with the proposed drilling:

a) White Rock Zone

The White Rock zone lies immediately to the west of large outcrops (Map No. 1) of silicious material that outcrops conspicuously along the road to Morfa-du. Promising mineralisation was cut in this zone and previous estimates of approximately 250,000 to 300,000 tons of 12% combined lead-zinc, 1.8 ounces silver and 0.60% copper exist. Our studies indicate the zone is approximately 200 feet in width and trends roughly east-west. To the east the zone appears to terminate against the White Rock outcrops but to the west there are indications that it could continue under the Corwas Thrust and down-dip to the north. The following holes are proposed:

D.D.H. No. 1 (Map No. 2)

Bearing 10° east of south; inclination -70° ; depth 800 feet. Will test the zone between D.D.H. No. 8 and D.D.H. No. 13 and continue into the footwall zone which has not been tested.

D.D.H. No. 2 (Map No. 2)

Bearing 10° east of south; inclination -60° , depth 800 feet. Will be drilled to test the down-dip extension of D.D.H. No. 1.

If these holes are encouraging, drilling will extend so as to trace the extension to the west under the Corwas Thrust, in Stage 2 of this project.

b) Morfa-du Mine Area

Old maps and other reports (1860) indicate bluestone mineralisation over widths of some 270 feet in the Morfa-du zone (see Map No. 3 and No. 4) between the Ida Shaft and the Engine

Shaft

Shaft: surface stopes exist in this area. Previous holes drilled (No. 15, No. 16 and No. 20) to cut this zone were drilled roughly parallel to it and D.D.H. No. 15 did intersect a small zone. There is evidence that the zone trends east-west and dips to the south and the following diamond drill holes will test this area (Map No. 2):

D.D.H. No.3

Located near the collar of D.D.H. No. 15; bearing due south; inclination -60° ; proposed depth 800 feet. This hole will test the down-dip extension of the known mineralisation that was worked in the old Morfa-du Mine.

D.D.H. No. 4 - (Drilled if No. 3 is encouraging)

Bearing 10° east of south, inclination -65° ; proposed length 800 feet. This hole will test the eastern down-dip extension of the Morfa-du zone to the east of the workings. The intersection of "bluestone" ground in D.D.H. No. 15 indicates that the zone persists to the east for some distance.

Future locations in Stage 2 of the project will depend upon the results received from these two holes.

c) Chapel Zone

The Chapel area lies some 500 feet to the south of the Morfa-du Mine (Map No. 1 and No.2). In this area are four shafts, Chapel, Pen-y-ant, Garden, and Whin but very little is known about the operations in this area. However, black cherts and shales similar to that of the Morfa-du and the Open Pit are present and pyrite mineralisation is also present. In addition

results

results of a previous geophysical survey (induced polarisation) in this zone indicated favourable targets which have not yet been adequately tested.

It is proposed to test this with one hole.

D.D.H. No.5

Bearing 10° east of south;
inclination -60° , depth 600 feet. This hole will cut the hanging wall and foot-wall sides of the bluestone-shale zone.

Footage in Morfa-du Area

Five holes totaling 3800 feet.

B. Coronation Zone

The Coronation zone is that part of the Parys Mountain volcanic complex that lies between the Western Open pit and the Morfa-du area. Geologically the area is made up of interbedded volcanics, acid fragmentals, ash beds, and sedimentary rocks. There is little evidence of the bluestone shale sequence on the surface, however there is a great amount of dump material that would obscure any outcrops if they exist. The ancient miners attempted to find the extension of the bluestone shale sequence by several shafts in this area, namely the Hughes, the Hughes Incline, the Coronation, the Morgan and the Dinorben. All of these cut extensively pyritized felsites with small amounts of chalcopyrite, however the main bluestone zone was not found.

The induced polarisation survey that was carried out previously indicated a large anomalous zone extending from the open pits to the White Rock zone in the Morfa-du area: old diamond drill holes No. 3, No. 12, and No.14 to 26 tested this anomaly. The holes in their upper parts cut highly sheared acid fragmentals with disseminated pyrite which could quite easily explain the large I.P. anomaly. Hole No. 3 cut a 6 foot section of massive sulphides at a vertical depth of

700 feet: black shales were cut in the lower part of both No. 3 and No. 12. It would appear that the holes were drilled mainly in the series of thrust sheets that have been pushed south cutting off the upper portions of the bluestone-shale sulphides and there is a good possibility that No. 3 after passing through the thrust sheet stopped in the bluestone felsite transition zone marked by pyrite and pods of bluestone. D.D.H. No. 12 may have passed into the shale footwall side of the bluestone into the souther felsites. In effect both of these holes may have straddled the zone at depth after passing the thrust sheet (Section No. 6).

The attached map (No. 1) shows the projection of the bluestone zone at depth under the thrust sheet. This projection as mentioned previously coincides with the Chapel mineralised area. It may be observed on the plan that the holes put down previously did not effectively test this zone. The presence of the cross-faulting in the zone also complicates the picture.

a) Diamond Drilling

It is recommended that a hole be drilled below D.D.H. No. 3 and carried to a depth so as to pass through the projected bluestone shale zone at depth, and possibly be extended to cut the footwall side of the southern felsite at depth. It will be drilled 200 feet west of D.D.H. No. 3 because of the possible presence of a cross-fault (N-S) which D.D.H. No. 3 may have cut.

D.D.H. No. 7

Bearing 10° east of south, inclination -60° , length 2000 feet. Further drilling will be carried out depending upon the success of this hole in Stage 2 of this project.

b) Footage - Coronation Zone

One (1) hole 2000 feet in length.

C. Western Open Pit Area

There were four principle lodes occurring within the Western Open Pit (Map No. 3). These are the western extensions of the Clay Shaft Lode, the Black Shaft Lode, and other parallel lodes. In the Western Shaft area these were mined below the open pit to a depth of approximately 300 to 350 feet. (Section No. 5).

There is no report regarding the widths or grade of mineralisation at depth, however the 90 fathom cross-cut (540 feet) to drain the entire zone was driven under the Colonel Marquis Shafts in 1860. The old records show the shaft to cut approximately 300 to 400 feet of "Bluestone Ground" with five or six lodes noted on it. No mining took place at this level because of reported flooding.

a) Diamond Drilling

One hole is recommended to be drilled in the area of the Marias Shaft in a south-easterly direction to test the area between the Colonel and the Marquis in the Western Open Pit (Section No. 5). One of the difficulties in drilling on the Open Pits is the preponderance of workings between the Carreg-y-doll to the north and the Open Pit areas. The area proposed above is completely free of workings.

The hole bearing southeast (declination -60°) will have an estimated length of 2000 feet. The ground tested by the above proposed D.D.H. No. 6 is as follows:

- (i) the Bluestone Ground extension under the Western Open Pit.
- (ii) the hanging wall lodes equivalent to the western extension of the Great Lode of the Blackrock and Clay Shaft Lodes.
- (iii) the southern limite (Footwall) of the Silurian shales between the northern and southern felsites.

(iv) /

- (iv) the southern limit (footwall) of the southern felsite for the occurrence of bluestone or other lodes.

This hole will also give information concerning the possible western extension of the bluestone area through the Coronation zone. Further drilling will be based on the success of this hole.

) Footage - Western Open Pit

One (1) hole 2000 in length.

Total Footage of Drilling in Stage 1

Morfa-du area	3800 feet
Coronation zone	2000 feet
Western Open Pit	<u>2000</u> feet
	<u>7800</u> feet

3. Core Logging - Splitting - Assaying

A core logging shack has been erected on the property in anticipation of the inclement weather normal to this area. Two additional core storage sheds have been constructed. A core splitting shed has been set up and organized. Arrangements have been made with Alfred H. Knight Limited, of 18 Church Road, Seacombe, Wallasey, Cheshire, U.K. to carry out analyses for copper, lead, zinc, silver and gold. Their laboratory located in Cheshire (approximately a 2 hour drive) will facilitate and expedite assay returns. Knights have their own pick-up service for core collection. Check samples will be run at Daniel C. Griffith & Co. Ltd., of 5-7 Dysart Street, London E.C. 2A 2BX, England.

4. Staffing

Dr. Robert Batey will be the Resident Geologist at Amlwch during the period of this program. He will be residing at the Dinorben Arms Hotel in Amlwch, telephone number 830-230 (Holyhead). The Intermine office is located at Pentre Gwian, telephone number 830-614 (Holyhead). Dr. Batey will be assisted by Dr. Jose Serrano.