REPORT ON A VISIT TO EGYPT

14-17 and 23-26 January 1982

by

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Report No. 82/4

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1. Purpose of Visit The ODA/IGS Southern Desert Mineral Exploration Project has been in progress since October 1979 and this was the first opportunity I have had to review the work. The project is scheduled to terminate at the end of 1982 but the Egyptian authorities had passed a message through the Team-leader that they wished to discuss its extension beyond 1982: my visit therefore afforded an opportunity for this discussion. (The period 18 - 22 February inclusive was taken as privilege leave).

2. The Southern Desert Mineral Exploration Project Fieldwork started in 1979 in the western desert, i.e. west of the River Nile, and the examination of this area was more or less completed by the end of 1980. (Fieldwork is carried out in two periods of approximately 3 months each per year, October to December and January to April with the IGS team returning to the U.K. each summer when fieldwork in Egypt is not possible and over the Christmas/New Year period). The results of the Western Desert work have already been communicated in periodic reports by Dr J.H. Bean the team-leader: follow-up work on the significant occurrences identified is the responsibility of the Egyptian Geological and Mining Authority.

Fieldwork in the Eastern Desert south of latitude 23°N was therefore commenced in January 1981 and this programme is still continuing. Geo-chemical sampling is being carried out in those areas covered by geological maps so that results can be related to bed-rock as far as possible though it has to be admitted that the quality of the geological maps leaves a great deal to be desired. Owing to the unavailability of military permits to travel into the desert (despite the fact that these had been requested in November last year) I was unable to visit the project's desert camp at Gebel Hadaiyib some 130 km south-south-east of Aswan though a short trip into the Red Sea Hills south-east of Aswan was possible on the afternoon of the 17 February.

Analytical data pertaining to the samples collected during the October - December 1981 field-season had not become available at the time of my visit so that an assessment of the mineral potential of the area covered was not possible at that juncture. The results for the January - April 1981 field-season were however, available and these revealed at least two interesting occurrences, the first a fairly widespread copper mineralisation and the second the Gebel Shilman area where high chromium and nickel values were identified. The Gebel Shilman area also presents high tin values, an unusual association of minerals but one which was recently identified by the ODA/IGS mineral exploration team in North Sumatra. Both the copper and the chromium-nickel-tin anomalies merit close follow-up investigations but this unfortunately is not within the IGS team's remit.

The fieldwork component of this project will be completed in April 1982 and the IGS team will then return to the U.K. to complete reports and maps and evaluate the geochemical data as that becomes available from the Cairo laboratories. In June or thereabouts three Egyptian counterpart geologists will join their IGS colleagues at Keyworth for a three-months' attachment. The project's final report is expected to be ready for despatch to Egypt in December of this year.

It is perhaps premature to make an assessment of the benefits likely to accrue from this project but it should be noted that several interesting geochemical anomalies have already been identified and these should be the subject of detailed follow-up action by the Geological and Mining Authority of Egypt. Actual occurrences of minerals which could be of economic significance have also been recognised, e.g. Kaolinite west of Kalabsha which might provide feedstock for the Egyptian aluminium smelter in place of imported bauxite. The training aspect of the project has been successful, the Egyptian counterparts being afforded on-the-job experience of organising and executing a sustained geochemical exploration programme under extremely difficult and arduous circumstances. The experiment of bringing the counterparts to the U.K. for 3 months during the Egyptian hot season has also been a success and much appreciated by the Geological Survey and Mining Authority Management as it has afforded their less senior geologists the opportunity to broaden their perspective not only scientific but also cultural. Their improvement in the understanding of the English language is also of considerable value as it enables them to read and understand scientific literature of which there is a dearth in the Arabic language.

3. Meetings in Cairo

3.1 Egyptian Geological and Mining Authority

At the EGMA I had discussions with Dr M.A. Zaatout, Chairman of the Authority's Board of Directors and with Dr Bahay Issawi, Director-General in charge of Regional Geology. Dr Bean, Team-Leader, Southern Desert Project was present at both discussions. Dr Zaatout and Dr Issawi expressed their satisfaction with and their gratitude for the work of the team and I said that the final report should be available by the end of the year. I enquired regarding the EGMA's plans for publishing the results of the investigation and was informed that these would be published in the Annals of the Geological Survey of Egypt which is entirely satisfactory from our point of view. I also enquired whether the Chairman would be agreeable to the project results being placed on open file prior to publication and was told that there would be no objection to this as the Government's policy is to encourage as much foreign participation as possible in developing the country's mineral resources.

The Chairman then raised the possibility of the project being extended beyond December of this year: he felt that it had been most successful particularly on the training side where the IGS team had achieved considerable progress in transferring technology to their counterparts. He and his senior officers appreciated the serious lack of experience of detailed geological investigation amongst their geologists and it was on this aspect that he would greatly value further help from the ODA/IGS. What he had in mind was a detailed follow-up investigation of a small number, perhaps even only one, of the base-metal geochemical anomalies identified so far in the southern desert; this would include detailed geological mapping with emphasis on the structural and petrological aspects and metallogenesis and laboratory work would be as important as the field investigations. The EGMA would be glad to continue its current counterpart obligations and would further be prepared to supply two more jeeps for the fieldwork. (It should

be noted that the EGMA has more than adequately fulfilled its obligations under the MOU covering the current project). Provided the present complement of Landrovers and the Rangerover could be overhauled there would not be major expenses involved in providing equipment for an extension of the project neither possibly would there be the same demand on training funds as there is at present (though this aspect was not discussed at our meeting).

The staff costs including travel and subsistence, for the Southern Desert Project have been borne by the ODA subvention to IGS with the cost of the vehicles and certain other items of equipment being met from regional TC funds. However, in view of the 1981 ruling that all new TC programmes must be funded from regional TC allocations, a policy decision is now required as to whether a continuation of the Southern Desert Project, if this is acceptable in principle, should continue to be a charge on the subvention to IGS. My evaluation of the EGMA request is that it has very considerable merit: as I mentioned earlier the quality of the geological maps produced by the Authority is extremely low and in some of the instances noted by the present IGS team, completely inaccurate. This fundamental deficiency would be alleviated by the type of training that would be imparted and there would in addition be the bonus all too often missed in our TC programmes, of detailed follow-up work on discoveries made in the earlier phase of the project. The request is therefore particularly attractive and I recommend that it be accepted and that funding to meet staff costs continues to be provided from the ODA subvention to IGS. These costs in financial year 1982-83 are estimated as being of the order of £78,600 for a 3-man team; the charges on the regional TC allocation in the same year would be mainly the cost of refurbishing the project vehicles.

In my discussion with Dr Zaatout I raised the question of involvement by U.K. mining companies in developing mineral prospects identified as a result of TC funded projects. Dr Zaatout replied that such involvement would be welcomed and he expressed some surprise that so very little interest was being shown at the present time by U.K. companies in his country's mineral potential. The Rio Tinto Zinc Company had shown interest some time ago but this had not been pursued: I mentioned that in the case of RTZ there had been a misunderstanding over a licence area which one of Dr Zaatout's predecessors had apparently promised to the company and then discussed it with the United Nations Revolving Fund as a likely project area. Dr Zaatout admitted there had been a misunderstanding but the UNRF had since declined to participate in the project: in view of this I said I would contact RTZ to acquaint them of the present situation. The only other U.K. company that the EGMA were aware of as having an interest in Egypt's minerals was British Sulphur which is examining the possibility of developing a facility on the Red Sea coast. Several U.K. consulting houses had also offered their services in various forms.

3.2 Meetings at the British Embassy

In company with Dr Bean I had a meeting with Mr C.C.R. Battiscombe, Commercial Counsellor and Mr C Metcalfe, First Secretary (Aid) and thereafter with Mr Metcalfe and Mrs Madden. At the former meeting Dr Bean and

I outlined the project's work so far and explained its objectives. Mr Battiscombe asked whether there were now opportunities for U.K. mining companies in the areas examined by the team: we explained that the work so far was of a reconnaissance nature and that ordinarily further follow-up investigations of the targets identified would be required before the private sector would be prepared to risk funds. I mentioned that RTZ had in the past shown interest in copper possibilities in the Red Sea Hills - as was noted in my discussions at the EGMA - and I said I would contact them on my return to the U.K. to ascertain whether the company might resusticate its interest in Egypt possibly in some form of joint venture with IGS.

I then reported the EGMA's request that the Southern Desert Project be extended in the form I have outlined in section 3.1 above. Messrs. Battiscombe and Metcalfe thought that, other things being equal, this merited support though Mr Metcalfe pointed out that regional TC funds were very heavily committed for 1983-84 a fact that had already been emphasised in my brief session in ODA. I explained that apart from the vehicle, equipment and UK training items the IGS subvention had so far borne the costs of the project but there was now some doubt as to whether this arrangement could be extended. The meeting's concensus was that it would be well worthwhile to continue the project under the existing funding system.

In our discussion afterwards with Mr Metcalfe and Mrs Madden, it was agreed that if there is to be no continuation of the project, the vehicles provided by ODA will be left with the EGMA. The EGMA has paid Customs duty on all the vehicles from its own resources and Dr Bean said that the Landrovers and the Rangerover had to all intents and purposes been assimilated into the Authority's vehicle pool. It was left to Mr Metcalfe to decide whether a letter should be addressed to the Chairman, EGMA formalising the handover. It was also agreed that certain other items of equipment provided by IGS, e.g. radio communication sets, should be donated to the EGMA but that the ratemeters should be brought back to the U.K. in the team's personal baggage.

A query had arisen over the fate of the equipment provided by ODA for the new EGMA laboratory in Kharga (it will be recalled that a sum of £12,000 had been included in the original project budget for this purpose) and I informed Mr Metcalfe that most of the items concerned were now in use in the Geological Museum in Cairo. I had asked Dr Issawi about the reasons for diverting the equipment from its agreed destination and he had said that the Kharga laboratory had unfortunately not become operational owing to the departure to Saudi Arabia of the officer who had been responsible for the Kharga development. I saw some of the items in use at the Geological Museum and it was interesting to note that technicians were being trained in their operation by a West German instructor. In the circumstances, as good use appears to be made of the equipment, it is probably best not to pursue this point any further especially as I was told that if the Kharga laboratory is reopened the equipment can be moved there from the Museum.

3.3 Meeting at the British Council

Dr Bean had reported to me a problem regarding the B.C. awards available for the U.K. visit this year of the three Egyptian counterparts and we therefore called on Dr Simm at the Council on the 26 January. Dr Simm explained that his funds were under strain and that he could not foresee how the visit of 3 counterparts could be financed, unless the Egyptian authorities were prepared to pay the air-fares. I explained that there was in fact, a firm commitment in the MOU to accept 3 counterparts for 3 months in the U.K. for each of the 3 years of the project and there could really be no question of asking the EGMA to pay the air-fares. The IGS charge would however, only be at the rate of £35 per week per counterpart (as a bench fee in view of the fact that the salaries of the IGS supervisors would already be paid from the ODA subvention). In view of this Dr Simm agreed that his funds would cover the costs of 3 counterparts and Dr Bean took away with him a supply of forms A4 so that the processing exercise could commence as soon as possible.

4. Aswan High Dam Earthquake Risks A number of fairly minor seismic events had occurred in the Aswan region over the last few months, the strongest being 6.4 on the Richter scale, and this has aroused considerable concern in Egypt owing to the possible danger to the Aswan High Dam. The events appear to be associated with movements on the Kalabsha fault system which is aligned more or less east-west, and which possibly extends across the Nile valley some 20 miles south of the dam itself. There are a number of other minor E-W faults in the dam area and a small seismic event which had occurred in the week previous to my visit was thought to be associated with one of these. A network of seismograph stations has been established in the Aswan region by the EGMA to monitor the shocks.

5. Acknowledgements I wish to express my gratitude to the Chairman and the senior officers of the EGMA for their kindness and generous hospitality and to Dr Bean for the excellent arrangements made for my visit. For hotel bookings in Cairo I am grateful to Mrs Madden and for the U.K. end of the arrangements to Mrs Hooton of ODA.

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25 February 1982