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**AMIL MINING INDIA
PRIVATE LIMITED**

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**FINAL REPORT ON
EXPLORATION WORK**

CARRIED OUT BY

AMIL MINING INDIA PRIVATE LIMITED

**OVER THE AGGREGATE AREA OF 6522.00 SQ. KM.
GRANTED UNDER SIX RP'S IN ANANTAPUR, CUDDAPH
AND KARNOOL DISTRICTS OF ANDHRA PRADESH**

**FROM
7TH APRIL 2001**

**TO
30TH APRIL 2005**

4/10/05

AP. Examine & report the compliance by the party against our violation letter
AMG (Gupta)
T. To. To.

भारतीय भू-सर्वेक्षण विभाग / Ministry of Geology
तारीख / Date: 19/04/05
सूचिकांक / Sheet No: 41106
Geological Survey of India / Survey of India
Map Cell

**FINAL REPORT ON EXPLORATION WORK CARRIED
OUT BY AMIL MINING INDIA PRIVATE LIMITED
FROM 7TH APRIL 2001 TO 30TH APRIL 2005**

Exploration work done in the areas covered under the RP's is detailed below area wise, from the date of commencement to the date of expiry (3 years period) of each RP.

I. INTRODUCTION

Six Reconnaissance Permits were granted to AMIL Mining India Private Limited in the State of Andhra Pradesh, at different dates during the years 2001 & 2002 as indicated in the table below .

TABLE

**RECONNAISSANCE PERMIT DETAILS OF
AMIL MINING INDIA PRIVATE LIMITED**

<u>Districts</u>	<u>Area Granted Sq. Km.)</u>	<u>Date of Execution</u>	<u>Relinquishment Area (Sq.Km)</u>	<u>Retained Area (sq. Km)</u>	<u>Date of Expiry</u>
1. Anantapur & Kurnool (Block A)	481	07.04.2001	240.5	240.5	06.04.2004
2. Anantapur (Block B)	1028	07.04.2001	514.0	514.00	6.04.2004
3. Anantapur & Cuddaph (Block C)	1764	01.05.2002	906.1	857.9	30.04.2005
4. Anantapur & Cuddaph (Block D)	1757	01.05.2002	893.3	863.7	30.04.2005
5. Anantapur & Cuddaph (Block E)	1427	01.05.2002	773.5	653.5	30.04.2005
6. Anantapur (Block F)	65	25.10.2001	36.0	29.0	24.10.2004

II. AREA OF PROSPECTING

Area of 481 Sq. Km. (Block A) of Anantapur & Kurnool Districts of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

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Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content. The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies.

PROSPECTING WORK DONE

The samples collected were analysed for Heavy minerals. The heavy mineral picking results of the stream sediment samples collected has been received from the lab (table 1). The results are now being evaluated for further work. For the geological fieldwork currently two teams, each consisting of a geologist/geophysicist and a driver are engaged. Field assistants, depending on the requirement for each team, are hired locally. (Attached as Encl - 1)

III. AREA OF PROSPECTING

Area 1028 Sq. Km. (Block B) Anantapur, Dharmavaram Taluk of Anantapur District of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content. The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies.

The Reconnaissance Permit area is underlain by peninsular gneiss (PG), Ramagiri-Penakacherla metamorphics (RPM), granites and acid and basic intrusives. Banded and streaky gneiss and granitoid represent the peninsular gneiss. The gneisses are mainly hornblende gneiss, hornblende biotite gneiss, biotite gneiss and migmatite. The granitoid are seen among the PG and are massive or foliated.

Metavolcanics and metasediments represent the Ramagiri Penakacherla metamorphics. The metavolcanics are dominantly mafic volcanics with subordinate acid volcanics. The mafic volcanics are locally pillowed. The metasediments are quartzite, BMQ and ferruginous quartzite. K-rich granites of lower Proterozoic age, both grey and pink varieties intrude the PG and RPM. The granites are medium to coarse grained and locally porphyritic. Large number of dolerite and gabbro dykes traverses PG and RPM. The general foliation trend is NNW-SSE with sub vertical-to-vertical dips.

PROSPECTING WORK DONE



Regional Ground magnetics:

The regional survey was carried out to cover the four known pipes. G-856 Proton Precision magnetometer was used to collect the magnetic data. The survey was carried out at a line spacing of 200m, and 100m in the vicinity of the known kimberlite pipes. The survey was carried out at NS bearing. The station spacing used for the survey is 20m.

The kimberlites show as mag lows in the ground data, especially pipes 4,2 and 1. From the regional data anomaly E was picked for ground check . The anomaly was not explained on ground and hence was followed up by detailed magnetics (50m line spacing and 10 m station spacing).

Drilling:

To test the potential of the known 4 kimberlites a small drilling programme was undertaken . (Attached as Encl - 2)

IV. AREA OF PROSPECTING

Area of 1764 Sq. Km.(Block C) of Muktapur, Mangesh Village in Anantapur & Cuddapah Districts of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content.

The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies - notably in the adjacent Chigicherla area.

PROSPECTING WORK DONE

As part of the 3-pronged focus of this field program we have conducted a regional stream sediment sampling survey to assess the diamond potential of the property. Samples were collected on a 10-50 km² grid.

The collection process included hunting for the best trap sites available from various stream widths (1 – 20m). These were typically taken from rock bars, boulders in thalweg, and point bars. Poor trap site locations were avoided, however where this was unavoidable a sample was swept from the thalweg or the accumulation of coarsest material down to the base of the streambed. This was usually under 5-10cm. Between 15-30 kg of dry-sieved material was routinely collected from stream sample sites.

A total of 18 stream samples were collected during the period, whilst 36 samples were collected and reported in the previous period. All samples were sieved to – 1.0mm, or -1.1 mm.

The samples have been submitted to Diatech laboratories, Perth Australia for Heavy mineral picking and probing. A large number of Cr-spinel grains were reported from several samples however these have been determined chemically to be derived from cross cutting dolerite dykes and are of no interest to diamond exploration.

For the geological fieldwork currently two teams, each consisting of a geologist/geophysicist and a driver are engaged. Field assistants, depending on the requirement for each team, are hired locally. (Attached as Encl – 3)

V. AREA OF PROSPECTING

Area of 1757 Sq. Km. (Block D) of Kadri Taluq and Village in Anantapur & Cuddapah Districts of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content. The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies.

PROSPECTING WORK DONE

Stream sampling

As part of the 3-pronged focus of this field program we have conducted a regional stream sediment sampling survey to assess the diamond potential of the property. The focus of field programs during the previous reporting periods was continued follow-up stream sampling survey to assess the diamond potential of the RP. Samples were collected on a nominal 30-50 km² drainage areas.

The collection process included hunting for the best trap sites available from various stream widths (1 – 20m). These were typically taken from rock bars, boulders in thalweg, and point bars. Poor trap site locations were avoided, however where this was unavoidable a sample was swept from the thalweg or the accumulation of coarsest material down to the base of the streambed.

This was usually under 5-10cm. As these are initial samples it was decided to collect only greater than 30 kg of dry-sieved material collected from stream sample sites where possible.

A total of 50 stream samples have been collected during the previous period. All samples were sieved to -1.1 mm.

Sample analysis:

The heavy mineral picking results of the stream sediment samples collected are provided in Table 1. The samples have been submitted to Diotech laboratories, Perth Australia for Heavy mineral picking and probing. A large number of Cr-spinel grains were reported from several samples however these have been determined chemically by SEM microprobe to be derived from cross cutting dolerite dykes and are of no interest to diamond exploration. (Attached as Encl – 4)

VI. AREA OF PROSPECTING

Area 1427 Sq. Km. (Block E) in Kothapalli, Sampalli Village in Anantapur & Cuddapah Districts of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content. The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies.

PROSPECTING WORK DONE

Stream sampling

As part of the 3-pronged focus of this field program we have conducted a regional stream sediment sampling survey to assess the diamond potential of the property. The focus of field programs during the previous reporting periods was continued follow-up stream sampling survey to assess the diamond potential of the RP. Samples were collected on a nominal 30-50 km² drainage areas.

The collection process included hunting for the best trap sites available from various stream widths (1 – 20m). These were typically taken from rock bars, boulders in thalweg, and point bars. Poor trap site locations were avoided, however where this was unavoidable a sample was swept from the thalweg or the accumulation of coarsest material down to the base of the streambed. This was usually under 5-10cm. As these are initial samples it was decided to collect only greater than 30 kg of dry-sieved material collected from stream sample sites where possible.

A total of 27 stream samples have been collected during the previous period. All samples were sieved to -1.1 mm.

Sample analysis:

The heavy mineral picking results of the stream sediment samples collected are provided in Table 1. The samples have been submitted to Diotech laboratories, Perth Australia for Heavy mineral picking and probing. A large number of Cr-spinel grains were reported from several samples however these have been determined chemically by SEM microprobe to be derived from cross cutting dolerite dykes and are of no interest to diamond exploration. (Attached as Encl – 5)

VII. AREA OF PROSPECTING

Area of 65 Sq. Km. (Block F) of Anantapur, Dharmavaram Taluk of Anantapur District of Andhra Pradesh for Diamond and Precious Stones, Nickel, Lead, Zinc, Copper, Gold and Associated Minerals.

GEOLOGY OF THE AREA

The area falls in the eastern Dharwar Craton of South India, east of the Closepet Granite. The Western margin of the Eastern Dharwar craton is a major shear zone west of the Closepet granite and its eastern margin is marked by a thrust fault beneath the granulite facies rocks of the Eastern Ghats. The northern boundary of the craton is marked by the Godavary graben and the southern margin is marked as a gradational transition to the granulite rocks of southern India.

Lithologically the area consists of gneisses, schist belts (comprising metavolcanic and meta sedimentary rocks) and Granites. Proterozoic sedimentary basins occur in different areas, the major ones are the Cuddapah basin and Bhima basin. The schist belts are intruded by younger potassic granites and also by suites of peninsular gneiss. The area is intruded by number of dykes, mainly dolerites with low potassic content. The other late igneous activity in the eastern Dharwar craton is marked by the intrusion of Kimberlite and lamproite bodies.

Regional geological traverse to analyse the geology and to look at the network

For the geological fieldwork currently two teams, each consisting of a geologist/ geophysicist and a driver are engaged. Field assistants, depending on the requirement for each team, are hired locally. (Attached as Encl – 6)