STOCKDALE PROSPECTING LIMITED

EXPLORATION LICENCES 8259, 8260

FINAL REPORT

EAST BAINES AREA

M.I. MILLIKAN
GEOLOGIST
MAY 1995
Project: East Baines
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Final Report
Author: M.I. Millikan
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Abstract: A total of 179 heavy mineral samples was collected over EL's 8259-60. Reconnaissance work consisting of 131 samples recovered moderate interest chromites. Follow up work (primarily to chromites) failed to recover any further indicators or diamonds. These areas hold little potential to host an economic primary diamond source.

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SUMMARY

EXPLORATION LICENCES: 8259, 8260
DATE GRANTED: 24th December, 1993
AREA:
EL 8259 75 blocks (242 sq km)
EL 8260 104 blocks (335 sq km)

OCCUPANT: Stockdale Prospecting Limited
OPERATOR: Stockdale Prospecting Limited
COMMODITIES SOUGHT: Diamonds

EXPLORATION:
A total of 179 heavy mineral samples was collected over EL's 8259-60. Reconnaissance work consisting of 131 samples recovered moderate interest chromites. Follow up work (primarily to chromites) failed to recover any further indicators or diamonds. These areas hold little potential to host an economic primary diamond source.
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Appendix 1 NTDME Granting of Combined Reporting
1. INTRODUCTION

Exploration Licences 8259 and 8260 lie partly on the Auvergne SD52-15 and partly on the Waterloo SE52-03 1:250,000 mapsheets. The licences are located some 60km southwest of the township of Timber Creek (Map 1).

Both exploration licences were granted in December, 1993 and were the subject of a close interval heavy mineral stream sampling programme.

This report details all exploration carried out in the relinquished licence areas up until the 26th April 1995 relinquishment date.

2. TENURE

Tenure details for EL’s 8259 and 8260 are summarised in Table 1.

**TABLE 1**

TENURE DETAILS, EL’S 8259 AND 8260

<table>
<thead>
<tr>
<th>EL</th>
<th>Original Area</th>
<th>Dec.,’94 Relinquished Area</th>
<th>April ’95 Relinquished Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>8259</td>
<td>286 blocks (921sq km)</td>
<td>211 blocks (679sq km)</td>
<td>75 blocks (242sq km)</td>
</tr>
<tr>
<td>8260</td>
<td>313 blocks (1008sq km)</td>
<td>209 blocks (673sq km)</td>
<td>104 blocks (335sq km)</td>
</tr>
</tbody>
</table>

An application for both areas was made in June 1993. The licences were subsequently granted on the 24th of December 1993, for a maximum period of 6 years. Combined reporting for these licences was granted on the 15th of December 1994 (Appendix 1).

A voluntary reduction of the licences was made after the first year of tenure, as shown in Table 1. Stockdale Prospecting Limited is both the operator and owner of EL’s 8259 and 8260.

3. ACCESS

Access to the tenement area is relatively poor. The Victoria Highway runs to the northwest of EL 8259, and the Bullita track is east of both licences. All work was conducted with the use of a helicopter.

4. PHYSIOGRAPHY

The tenement areas cover the physiographic subdivision known as the Victoria River Plateau. In the north and west of the area is a region of gently sloping plateaux which are dissected by a moderately dense, well developed, incised drainage system. The southeast of the area is represented by low rounded hills. In this region black soil plains are common and drainage is less developed.
5. GEOLOGY

5.1 Regional Geology

Exploration licences 8259 and 8260 lie within the Proterozoic aged Victoria River Basin (VRB). The VRB consists of a maximum thickness of 3.5km of relatively flat-lying, subhorizontal sediments, covering an area of some 160,000km² of the Sturt Block.

The Sturt Block has been relatively stable since the early Proterozoic and the deformation of overlying sedimentary sequence becomes less severe in successively younger units.

Folding is typically broad and is commonly monoclinal, the result of at least three periods of gentle folding and warping. Minor basement activity has also produced rare vertical faulting with less than 200m of movement.

A slight northwesterly dip in the sequence produces a linear southwest-northeast outcrop pattern of successively older units being exposed to the southeast in the Waterloo and Anvergne map sheet areas.

5.2 Local Geology

The geology in the areas of EL’s 8259 and 8260 consists of Late Carpentarian - Early Adelaidean sediments covered by recent colluvial and alluvial deposits.

The oldest unit in the area, cropping out in the east and southeast, is the Limbuuya Group consisting of massive dolomites and dolomitic siltstones with minor chert and sandstone horizons. This is unconformably overlain by sandstone, siltstone and minor dolomite of the Wattie Group.

Conformable on the Wattie Group are interbedded sandstones, dolomitic siltstones and dolomites of the Timber Creek Formation, the lower unit of the Bullita Group. This is overlain by the Skull Creek Formation which consists of dolomites and siltstones containing minor sandstone, as well as chert and massive dolomite.

The uppermost sedimentary unit in the area is the Jasper Gorge Sandstone, the lowermost unit of the Anvergne Group. The Jasper Gorge Sandstone unconformably overlies the Bullita Group sediments. The Jasper Gorge Sandstone dominates the geology of the western and northern areas of the tenements and consists of massive quartz sandstone with minor siltstone and a basal conglomeratic horizon.

6. EXPLORATION

6.1 Reconnaissance Sampling

A total of 131 reconnaissance samples was collected over the remaining parts of EL’s 8259 and 8260. Samples generally consisted of 100 litres of raw excavated gravel, screened in the field to either -2.0mm or -12.0mm. Sample numbers are listed below:

<table>
<thead>
<tr>
<th>Sample Code</th>
<th>Number of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL9607 - 11</td>
<td>(5)</td>
</tr>
<tr>
<td>BL9679 - 89</td>
<td>(11)</td>
</tr>
<tr>
<td>BL9695 - 99</td>
<td>(5)</td>
</tr>
<tr>
<td>BL9706 - 10</td>
<td>(5)</td>
</tr>
<tr>
<td>BL9910 - 16</td>
<td>(7)</td>
</tr>
<tr>
<td>BL9918</td>
<td>(1)</td>
</tr>
</tbody>
</table>
BL9928 - 30 (3)
BL9937 - 41 (5)
BN1003 (1)
BN1005 - 07 (2)
Total 46

EL8260

BN2329 (1)
BN2335 (1)
BN2343 (1)
BN2345 (1)
BN2352 - 53 (2)
BN2623 (1)
BN2641 (1)
BN2643 - 47 (5)
BN2652 (1)
BN2691 (1)
BN2834 (1)
BN2842 - 43 (2)
BN2846 (1)
BN2853 - 54 (2)
BN2887 (1)
BN2418 - 23 (6)
BN2426 - 27 (2)
BN2917 (1)
BN2930 - 34 (5)
BN2936 - 37 (2)
BL9965 - 79 (15)
BL9992 - 95 (4)
BN1031 - 57 (27)
Total 85

In addition to heavy mineral sampling, TM imagery was used to aid exploration. No features worthy of follow-up however were found within the relinquished areas.

6.2 Reconnaissance Sample Results

Sample results for the relinquished areas are listed in Table 2.

**TABLE 2: SAMPLE RESULTS, EL’S 8259 - 60**

<table>
<thead>
<tr>
<th>Sample Number</th>
<th>EL</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ BL 9696</td>
<td>8259</td>
<td>1 Pos. kimberlitic chromite</td>
</tr>
<tr>
<td>✔. BL 9707</td>
<td>8259</td>
<td>1 Non-kimberlitic chromite</td>
</tr>
<tr>
<td>✔ BN 1039</td>
<td>8260</td>
<td>1 Non-kimberlitic chromite</td>
</tr>
<tr>
<td>✔ BN 1046</td>
<td>8260</td>
<td>1 Non-kimberlitic chromite</td>
</tr>
<tr>
<td>✔ BN 2843</td>
<td>8260</td>
<td>1 Pos. kimberlitic chromite</td>
</tr>
</tbody>
</table>

The chromites, though only of moderate interest, were considered worthy of follow up work.
6.3 **Follow Up Sampling**

Follow up sampling concentrated on the collection of infill and repeat samples around BN2843 and other chromites of interest. A total of 48 samples was collected from EL’s 8259 and 8260.

The sample numbers were:

<table>
<thead>
<tr>
<th>EL 8259</th>
<th>EL 8260</th>
</tr>
</thead>
<tbody>
<tr>
<td>BN2938 - 44 (7)</td>
<td>BN2971 (1)</td>
</tr>
<tr>
<td>BN3701 - 09 (2)</td>
<td>BN3722 - 24 (3)</td>
</tr>
<tr>
<td>Total 16</td>
<td>BN2945 - 2949 (5)</td>
</tr>
<tr>
<td></td>
<td>BN2951 - 53 (3)</td>
</tr>
<tr>
<td></td>
<td>BN2969 (1)</td>
</tr>
<tr>
<td></td>
<td>BN3710 - 21 (12)</td>
</tr>
<tr>
<td></td>
<td>BN3801 - 07 (7)</td>
</tr>
<tr>
<td></td>
<td>Total 32</td>
</tr>
</tbody>
</table>

All follow up sampling was negative.

Results from the follow up sampling were disappointing. No further work was considered necessary, as the relinquished areas are considered unlikely to contain an economic primary diamond source.

7. **EXPENDITURE**

Expenditure in the relinquished areas totalled $194,039, as allocated in Table 3.

<table>
<thead>
<tr>
<th>TABLE 3</th>
<th>EXPENDITURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Staff Costs</td>
<td>EL 8259: 23,424</td>
</tr>
<tr>
<td>General Operational Expenses</td>
<td>EL 8259: 1,955</td>
</tr>
<tr>
<td>Transport &amp; Travel</td>
<td>EL 8259: 21,558</td>
</tr>
<tr>
<td>Tenement Costs</td>
<td>EL 8259: 8</td>
</tr>
<tr>
<td>Sample Analysis</td>
<td>EL 8259: 15</td>
</tr>
<tr>
<td>Central Treatment Plant</td>
<td>EL 8259: 7,101</td>
</tr>
<tr>
<td>Lab Treatment</td>
<td>EL 8259: 1,491</td>
</tr>
<tr>
<td>Lab Examination</td>
<td>EL 8259: 2,698</td>
</tr>
<tr>
<td>Remote Sensing</td>
<td>EL 8259: 32</td>
</tr>
<tr>
<td>Geophysics</td>
<td>EL 8259: 123</td>
</tr>
<tr>
<td>Drafting</td>
<td>EL 8259: 1,984</td>
</tr>
<tr>
<td>Description</td>
<td>Amount 1</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Regional Administration</td>
<td>5,229</td>
</tr>
<tr>
<td>Head Office Administration</td>
<td>9,258</td>
</tr>
<tr>
<td>Capital Expenses</td>
<td>3,682</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78,558</strong></td>
</tr>
</tbody>
</table>

M.M. MILLIKAN
GEOLOGIST
DARWIN, N.T.
Mr H A Hellewell  
Stockdale Prospecting Limited  
PO Box 3152  
DARWIN NT 0801

Dear Mr Hellewell

Re: Exploration Licences 8259 and 8260

We refer to your letter of 9 December 1994, requesting Group reporting for these Licences.

I am pleased to advise that combined reporting is approved, with a project reporting date of 23 January 1994. With respect to the matters of exploration expenditure and reduction of area, this Department has made a number of changes to our policy regarding project areas. Under the Mining Act each Exploration Licence is a separate entity and has to be treated as such unless specific variation if provided. To meet the statutory requirements of the Act, it is necessary that such requirements as payment of rent, statutory reductions, reporting of expenditure and establishment of program and covenant for a renewal period be done at the Licence anniversary date.

Where group annual reports are approved it is essential that full and complete relinquishment reports be provided for any areas relinquished from the licences within the group. Such reports must contain all data obtained and conclusions drawn from the time of licence grant until the time relinquishment is made.

Yours sincerely

[Signature]

PAUL LE MESSURIER  
CHIEF GOVERNMENT GEOLOGIST  
15 December 1994