

012688

**ANNUAL REPORT**  
**DECEMBER 1992**

EL 15/91 - SCOTTSDALE

PREPARED BY:

STORNOWAY HEWITT PTY LTD

**OPEN FILE**

**93-3419.**

AMG REFERENCE POINTS ADDED

The area covered by EL 15/91 is considered to be a potential source of high purity silica sand.

It is to be explored to establish quantities and grades of sand for used in glass making and other industry.

Important factors to be determined are:

1. Overall quantities available.
2. Relative content of silica and other minerals .
3. Grain size.

#### CONCLUSIONS

The area surveyed indicated an adequate deposit with a purity suitable for glass sand but only some 30% of total product was in the required size range.

#### FUTURE EXPLORATION

This will extend the area currently surveyed to establish total quantities and to explore for more suitable gradings.

029003

Relbia R.D. 245  
 Launceston 7250  
 Tasmania, Australia  
 Telephone (003) 44 7250

# STORNOWAY HEWITT PTY. LTD.

## Sand Supplies

Beauty Point, Sand Wash (003) 83 4277  
 After Hours : R. J. Hewitt (003) 94 7209

### ENVIRONMENTAL LICENCE 15/91

### ANNUAL REPORT 1991/92

During the year mechanical digging was carried out on the area now occupied by ML 11M/91.

41 pits were excavated on a 100 metre grid over an area of 42 hectares. (Area plan attached) Pits were excavated to the base of sand deposits and one sample taken from each pit, being representative of material at all depths of the deposit.

Samples were individually tested for grading and purity.

Expenditure to 31/12/91		Nil
to 30/06/92		\$9,468.00
Comprising	Field works	\$1,392.50
	Freight and analysis	\$5,587.50
	Office & Administration	\$2,488.00
		-----
		\$9,468.00
		=====
Proposed expenditure	1992/93 ✓	\$5,000.00

I Alan Gardner of Stornoway, RSD 245 Relbia, Tasmania being a director of Stornoway Hewitt Pty. Ltd., do solemnly and sincerely declare that the foregoing information is to the best of my knowledge and belief correct, and I make this solemn declaration consciously believing the same to be true and by virtue of the provisions of an Act of the Parliament of Tasmania rendering persons making a false declaration punishable for wilful and corrupt perjury.

Declared at RELBI A.....in the State of Tasmania  
this 10<sup>TH</sup>.....day of November 1992

before me G. R. McGrath-Ken.....J.P.  
A Justice of the Peace

Signed.....Alan Gardner.....

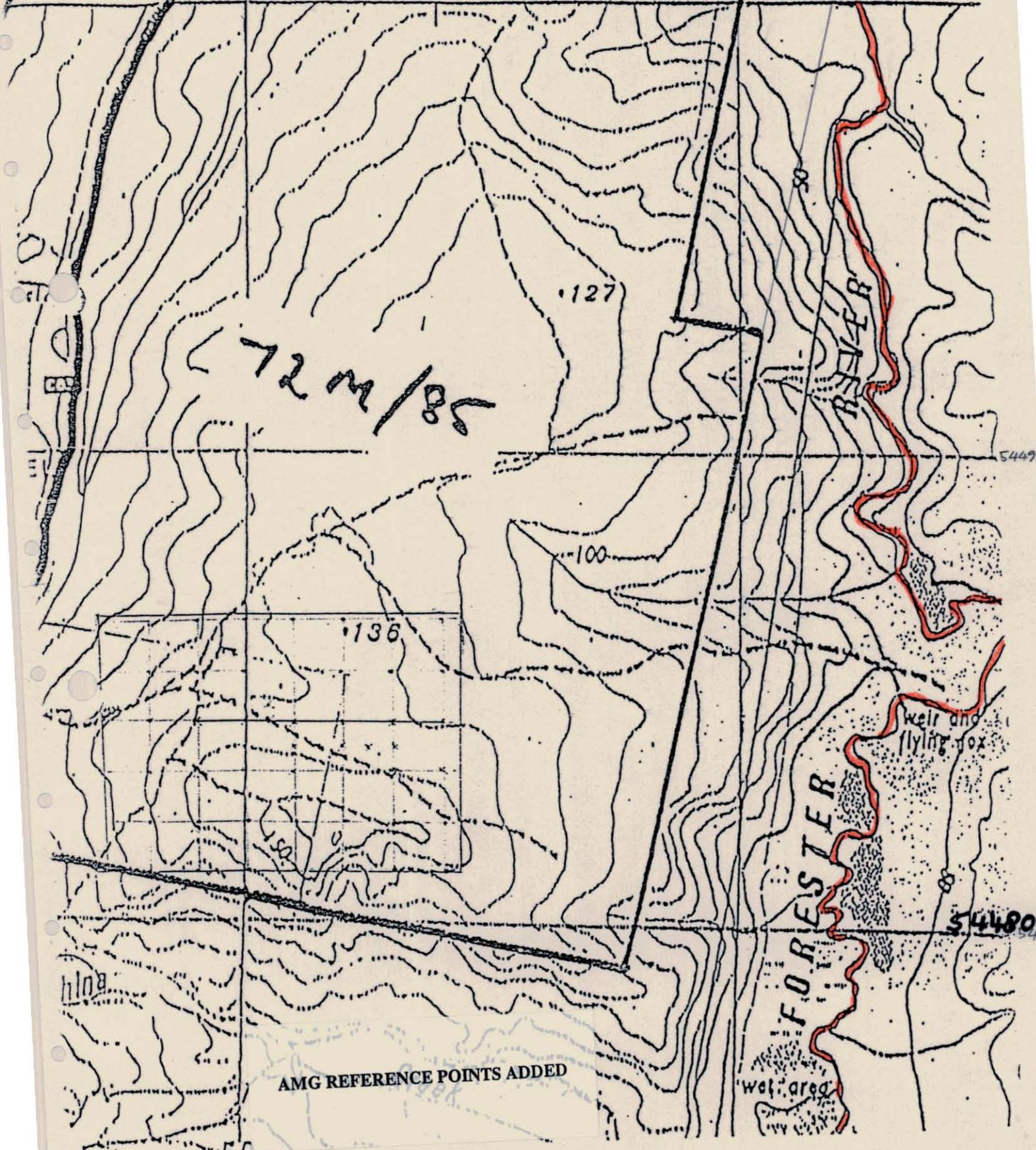
MINES		
FILE REF.		
15 DEC 1992		
DOC. REF.		
OFFICER	FOR ACTION	FOR INFO.
RESUBMIT TO	DATE	

# TSDALE

511111

1550 000

551 000E



AMG REFERENCE POINTS ADDED

FORESTER

well and flying box

wet area

SURVEY G.A.T

N

100 METRE GRID

AMG  
5448600N

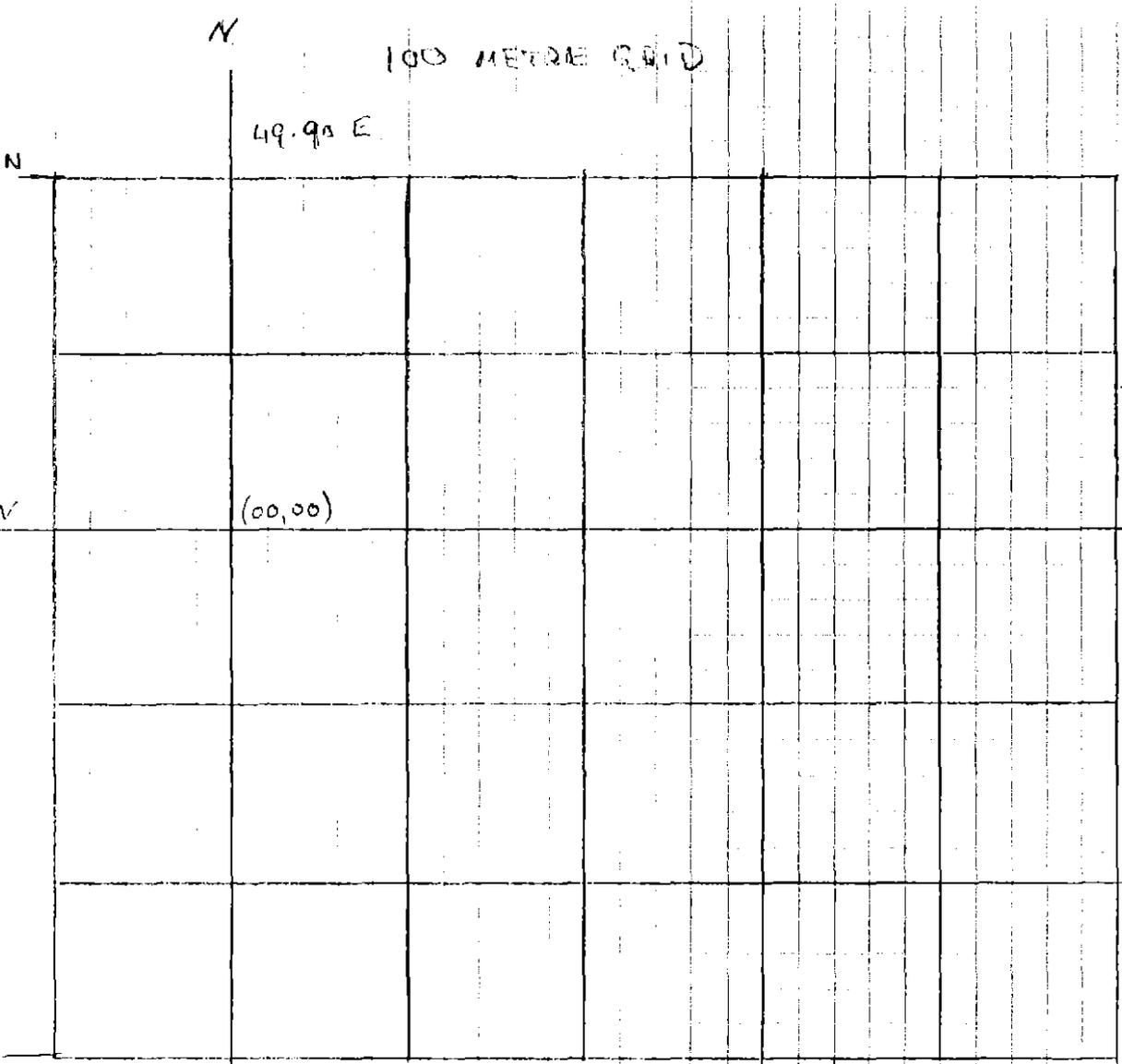
49.90 E

48.40 N

(00,00)

5448100N

S



029006

STORNOWAY HEWITT P/L

1/4/92

ML11/91 SCOTTS DALE

100 METRE GRID SURVEY

		-100	00	100	200	300	400	500
200 N	T'soil	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	Sand	1.4	1.3	1	0	2	0.6	1.4
	Base	Black S	H Pan	H Pan	H Pan	Clay	H Pan	Clay
100 N	T'soil	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Sand	0	0.3	1.8	0.4	1.7	0.4	2.8
	Base	Clay	H Pan	Clay	Clay	Clay	H Pan	Yellow S
00	T'soil	0.3	0.3	0.3	0.5	0.3	0.3	
	Sand	0.7	0.8	2.3	0	1.1	0	
	Base		H Pan	H Pan	HP/Clay	H Pan	Clay	
100 S	T'soil	0.2	0.3	0.2	0.4	0.3	0.4	0.3
	Sand	1.4	2	0.3	1.3	0.4	3.3	1.8
	Base	H Pan	Yellow S	H Pan	H Pan	H Pan	H Pan	H Pan
200 S	T'soil	0.3	0.3	0.4	0.3	0.4	0.4	0.4
	Sand	1.7	1.7	1.2	0.9	0.7	1.2	3.1
	Base	H Pan	Clay Int	Clay	Yellow S	Yellow S	Clay	Black S
300 S	T'soil	0.3	0.3	0.3	0.4	0.3	0.4	0.3
	Sand	0.4	1.3	1.3	0.9	1.2	0.8	0.9
	Base	H Pan	H Pan	H Pan	Yellow S	Yellow S	H Pan	Black S

LEGEND.

- Black S - Black sand
- H Pan - HARD PAN
- Yellow S - Yellow sand.

029007

## STORNOWAY HEWITT ML11/91 SCOTTSDALE SANDS - GRID SURVEY 1/4/92

	100 100N	200 100N	300 100N	400 100N	100 00	200 00
<u>+0.425mm MATERIAL</u>						
% +0.425mm by wt.	87.2	74.5	69.9	80.4		
SiO <sub>2</sub> (bal)	99.94	99.93	99.95	99.95		
Na <sub>2</sub> O	<0.01	<0.01	<0.01	<0.01		
K <sub>2</sub> O	<0.01	<0.01	<0.01	<0.01		
CaO	<0.01	<0.01	<0.01	<0.01		
MgO	<0.01	<0.01	<0.01	<0.01		
Al <sub>2</sub> O <sub>3</sub>	0.01	0.02	0.01	0.01		
TiO <sub>2</sub>	0.04	0.04	0.03	0.03		
Fe <sub>2</sub> O <sub>3</sub>	0.005	0.008	0.005	0.008		
Cr <sub>2</sub> O <sub>3</sub>	0.0001	0.0003	0.0001	0.0002		
<u>-0.425mm MATERIAL</u>						
% -0.425mm by wt.	12.8	25.5	30.1	19.6		
SiO <sub>2</sub> (bal)	99.29	99.39	99.56	99.32		
Na <sub>2</sub> O	<0.01	<0.01	<0.01	0.01		
K <sub>2</sub> O	<0.01	<0.01	<0.01	<0.01		
CaO	<0.01	<0.01	<0.01	<0.01		
MgO	<0.01	<0.01	<0.01	<0.01		
Al <sub>2</sub> O <sub>3</sub>	0.07	0.12	0.05	0.06		
TiO <sub>2</sub>	0.45	0.33	0.24	0.41		
Fe <sub>2</sub> O <sub>3</sub>	0.095	0.090	0.054	0.109		
Cr <sub>2</sub> O <sub>3</sub>	0.0017	0.0012	0.0016	0.0013		
<u>SCREEN (mm) wt%</u>						
	+3.250	12.4	7.9	6.6	11.2	
-3.250	+2.000	22.0	11.2	11.0	19.3	
-2.000	+1.000	30.4	20.4	23.3	28.9	
-1.000	+0.600	17.4	21.3	19.6	14.4	
-0.600	+0.425	5.0	13.8	9.5	6.7	
-0.425	+0.250	3.7	11.4	12.2	7.9	
-0.250	+0.150	1.9	4.1	6.3	4.2	
-0.150	+0.106	1.0	2.1	2.6	2.1	
-0.106	+0.075	2.0	1.4	2.2	1.3	
-0.075		4.3	6.5	6.8	4.2	

STORNOWAY HEWITT  
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|                                | 300<br>00 | 400<br>00 | 100<br>100S | 200<br>100S | 300<br>100S | 400<br>400S |
|--------------------------------|-----------|-----------|-------------|-------------|-------------|-------------|
| <u>+0.425mm MATERIAL</u>       |           |           |             |             |             |             |
| % +0.425mm by wt.              |           |           | 89.3        |             | 78.2        |             |
| SiO <sub>2</sub> (bal)         |           |           | 99.95       |             | 99.95       |             |
| Na <sub>2</sub> O              |           |           | <0.01       |             | <0.01       |             |
| K <sub>2</sub> O               |           |           | <0.01       |             | <0.01       |             |
| CaO                            |           |           | <0.01       |             | <0.01       |             |
| MgO                            |           |           | <0.01       |             | <0.01       |             |
| Al <sub>2</sub> O <sub>3</sub> |           |           | 0.01        |             | 0.01        |             |
| TiO <sub>2</sub>               |           |           | 0.03        |             | 0.04        |             |
| Fe <sub>2</sub> O <sub>3</sub> |           |           | 0.005       |             | 0.004       |             |
| Cr <sub>2</sub> O <sub>3</sub> |           |           | 0.0002      |             | 0.0001      |             |
| <u>-0.425mm MATERIAL</u>       |           |           |             |             |             |             |
| % -0.425mm by wt.              |           |           | 10.7        |             | 21.8        |             |
| SiO <sub>2</sub> (bal)         |           |           | 99.43       |             | 99.71       |             |
| Na <sub>2</sub> O              |           |           | <0.01       |             | <0.01       |             |
| K <sub>2</sub> O               |           |           | <0.01       |             | <0.01       |             |
| CaO                            |           |           | <0.01       |             | <0.01       |             |
| MgO                            |           |           | <0.01       |             | <0.01       |             |
| Al <sub>2</sub> O <sub>3</sub> |           |           | 0.06        |             | 0.04        |             |
| TiO <sub>2</sub>               |           |           | 0.35        |             | 0.17        |             |
| Fe <sub>2</sub> O <sub>3</sub> |           |           | 0.086       |             | 0.039       |             |
| Cr <sub>2</sub> O <sub>3</sub> |           |           | 0.0016      |             | 0.0008      |             |
| <u>SCREEN (mm) wt%</u>         |           |           |             |             |             |             |
|                                | +3.250    |           | 7.4         |             | 10.0        |             |
| -3.250                         | +2.000    |           | 17.4        |             | 23.1        |             |
| -2.000                         | +1.000    |           | 33.9        |             | 2.7         |             |
| -1.000                         | +0.600    |           | 23.3        |             | 28.7        |             |
| -0.600                         | +0.425    |           | 7.4         |             | 13.8        |             |
| -0.425                         | +0.250    |           | 4.1         |             | 12.3        |             |
| -0.250                         | +0.150    |           | 2.0         |             | 4.3         |             |
| -0.150                         | +0.106    |           | 0.8         |             | 1.7         |             |
| -0.106                         | +0.075    |           | 0.7         |             | 0.9         |             |
| -0.075                         |           |           | 3.1         |             | 2.6         |             |

## STORNOWAY HEWITT

|                          | 100<br>200S | 200<br>200S | 300<br>200S | 400<br>200S |      |
|--------------------------|-------------|-------------|-------------|-------------|------|
| <u>+0.425mm MATERIAL</u> |             |             |             |             |      |
| % +0.425mm by wt.        | 77.9        | 80.7        | 62.2        | 72.7        |      |
| SiO2 (bal)               | 99.95       | 99.95       | 99.93       | 99.92       |      |
| Na2O                     | <0.01       | <0.01       | <0.01       | <0.01       |      |
| K2O                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| CaO                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| MgO                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| Al2O3                    | 0.01        | 0.01        | 0.02        | 0.01        |      |
| TiO2                     | 0.03        | 0.04        | 0.05        | 0.06        |      |
| Fe2O3                    | 0.005       | 0.005       | 0.006       | 0.006       |      |
| Cr2O3                    | 0.0002      | 0.0001      | 0.0005      | 0.0002      |      |
| <u>-0.425mm MATERIAL</u> |             |             |             |             |      |
| % -0.425mm by wt.        | 22.1        | 19.3        | 37.8        | 27.3        |      |
| SiO2 (bal)               | 99.55       | 99.62       | 99.64       | 99.51       |      |
| Na2O                     | 0.02        | <0.01       | <0.01       | <0.01       |      |
| K2O                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| CaO                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| MgO                      | <0.01       | <0.01       | <0.01       | <0.01       |      |
| Al2O3                    | 0.05        | 0.05        | 0.05        | 0.04        |      |
| TiO2                     | 0.26        | 0.22        | 0.21        | 0.28        |      |
| Fe2O3                    | 0.053       | 0.047       | 0.040       | 0.053       |      |
| Cr2O3                    | 0.0012      | 0.0014      | 0.0017      | 0.0011      |      |
| <u>SCREEN (mm) wt%</u>   |             |             |             |             |      |
|                          | +3.250      | 9.4         | 7.9         | 2.3         | 6.4  |
| -3.250                   | +2.000      | 18.6        | 14.2        | 9.0         | 13.2 |
| -2.000                   | +1.000      | 27.0        | 29.5        | 21.2        | 24.5 |
| -1.000                   | +0.600      | 15.5        | 21.5        | 18.8        | 19.6 |
| -0.600                   | +0.425      | 7.4         | 7.7         | 12.9        | 9.1  |
| -0.425                   | +0.250      | 8.0         | 5.8         | 16.2        | 10.0 |
| -0.250                   | +0.150      | 5.2         | 3.3         | 8.0         | 6.4  |
| -0.150                   | +0.106      | 2.2         | 2.0         | 4.2         | 3.2  |
| -0.106                   | +0.075      | 2.8         | 2.0         | 2.5         | 1.9  |
| -0.075                   |             | 4.0         | 6.3         | 6.9         | 5.8  |

| TEST PIT NO. | 100-00 | 150-30W | 300-00 | 300-50S | 300-200S | 350-50s | 400-100s | 500-100s | 500-200S | AVERAGE |
|--------------|--------|---------|--------|---------|----------|---------|----------|----------|----------|---------|
| 4.75         | 2.2%   | 0.2%    | 1.7%   | 5.8%    | 0.0%     | 2.0%    | 0.8%     | 0.6%     | 9.2%     | 2.5%    |
| 2.36         | 12.0%  | 4.4%    | 11.8%  | 21.3%   | 8.6%     | 13.2%   | 8.8%     | 20.5%    | 23.0%    | 13.8%   |
| 1.18         | 22.6%  | 12.4%   | 26.8%  | 30.8%   | 21.3%    | 26.4%   | 24.4%    | 29.6%    | 27.9%    | 24.7%   |
| 0.600        | 26.2%  | 14.7%   | 24.0%  | 25.8%   | 20.9%    | 22.7%   | 29.3%    | 16.6%    | 20.2%    | 22.3%   |
| 0.425        | 9.5%   | 14.6%   | 11.0%  | 5.8%    | 12.0%    | 7.2%    | 9.8%     | 4.7%     | 5.5%     | 8.9%    |
| 0.300        | 7.8%   | 20.0%   | 7.6%   | 2.9%    | 11.2%    | 6.6%    | 6.6%     | 4.7%     | 3.6%     | 7.9%    |
| 0.212        | 5.2%   | 10.1%   | 3.9%   | 1.5%    | 6.6%     | 4.4%    | 3.6%     | 4.2%     | 2.2%     | 4.6%    |
| 0.150        | 3.4%   | 6.7%    | 2.7%   | 0.9%    | 4.7%     | 2.9%    | 2.6%     | 3.3%     | 1.4%     | 3.2%    |
| 0.075        | 3.3%   | 7.2%    | 3.5%   | 0.9%    | 5.6%     | 2.8%    | 3.1%     | 4.2%     | 1.4%     | 3.6%    |
| PAN          | 7.8%   | 9.7%    | 7.0%   | 4.3%    | 9.0%     | 11.8%   | 11.0%    | 11.7%    | 5.5%     | 8.7%    |
|              | 100%   | 100%    | 100%   | 100%    | 100%     | 100%    | 100%     | 100%     | 100%     | 100%    |

WEIGHTED AV.

|       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.75  | 2.2%  | 0.2%  | 1.7%  | 5.8%  | 0.0%  | 2.0%  | 0.8%  | 0.6%  | 9.2%  | 3.2%  |
| 2.36  | 12.0% | 4.4%  | 11.8% | 21.3% | 8.6%  | 13.2% | 8.8%  | 20.5% | 23.0% | 15.1% |
| 1.18  | 22.6% | 12.4% | 26.8% | 30.8% | 21.3% | 26.4% | 24.4% | 29.6% | 27.9% | 26.0% |
| 0.600 | 26.2% | 14.7% | 24.0% | 25.8% | 20.9% | 22.7% | 29.3% | 16.6% | 20.2% | 23.0% |
| 0.300 | 17.3% | 34.5% | 18.5% | 8.7%  | 23.2% | 13.8% | 16.4% | 9.4%  | 9.1%  | 14.4% |
| 0.150 | 8.6%  | 16.8% | 6.7%  | 2.3%  | 11.2% | 7.3%  | 6.2%  | 7.5%  | 3.6%  | 6.5%  |
| 0.075 | 3.3%  | 7.2%  | 3.5%  | 0.9%  | 5.6%  | 2.8%  | 3.1%  | 4.2%  | 1.4%  | 3.0%  |
| PAN   | 7.8%  | 9.7%  | 7.0%  | 4.3%  | 9.0%  | 11.8% | 11.0% | 11.7% | 5.5%  | 8.8%  |

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\*\*\* FINEST

\*\* COARSEST 00-200N SIMILAR

029012

# STORNOWAY HEWITT PTY. LTD. Sand Supplies

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After Hours: R. J. Hewitt (003) 94 7209

A.C.N. 009 558 936

Fax: (003) 43 0920

### FACSIMILE TRANSMISSION

TO: ..... DEPARTMENT OF MINES .....  
 ATTENTION: ..... THE EXECUTIVE OFFICER .....  
 FROM: ..... ALAN GARDNER .....  
 DATE: 17/3/93 ..... No. PAGES INCLUSIVE: 1 .....  
 SUBJECT: .....

MESSAGE:-

RE. ANNUAL REPORT EL 15/91

YOUR LETTER, 18/2/93

IN REPLY.

CHEMICAL ANALYSIS WAS CARRIED  
OUT BY A.C.I. SYDNEY BY  
X RAY FLUORESCENCE.

SIZING WAS CARRIED OUT BOTH BY  
A.C.I. IN ASSOCIATION WITH CHEMICAL  
ANALYSIS, AND IN OUR OWN  
LABORATORY.

| MINES       |            |           |
|-------------|------------|-----------|
| FILE REF.   | EL15/91    |           |
| 17 MAR 1993 |            |           |
| DOC. REF.   | 21075      |           |
| OFFICER     | FOR ACTION | FOR INFO. |
| JGO         | ✓          |           |
|             |            |           |
|             |            |           |
|             |            |           |
| REQUEST TO  | DATE       |           |

FAX No. (002) 44 2117