

LATIN RESOURCES LIMITED ACN: 131 405 144

Level 1, 173 Mounts Bay Road Perth Western Australia 6000 P 08 9485 0601 F 08 9321 6666 E info@latinresources.com.au

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# JORC INFERRED RESOURCE ESTIMATE OF 1.073 BILLION TONNES @ 6.1% HM AT LOS CONCHALES INCREASES TOTAL JORC INFERRED RESOURCES BY 371% TO 1.465 BILLION TONNES @ 5.7% HM AT GUADALUPITO, NORTHERN PERU.

#### <u>Highlights</u>

"Los Conchales" maiden JORC Inferred Resource of 1.073 Billion tonnes @ 6.1% HM *in situ* estimated by Snowden Mining Industry Consultants for Latin. This increases total JORC Inferred Resources at Guadalupito by 371% to 1.465Bt @ 5.7% HM *in situ*.

The Los Conchales Resource was estimated from within only 1,350 hectares of the more than 24,000 hectares of 100% Latin controlled mining concessions and claims.

The new JORC Inferred Resource Estimate exceeded Latin's original Conceptual Exploration Target (CET) for Los Conchales of 690Mt @ 6.8% HM (reported 26 July 2012) by more than 50%, and is a strong advance towards the Company's latest global CET of 4.5Bt @ 6.1% HM reported 21 November 2012 for the Guadalupito Project<sup>1</sup>.

The HM Assemblage is dominated by "Magnetite"<sup>2</sup> (22-25%) and Andalusite (21-24%), with ancillary presence of "Titanium minerals" including Ilmenite, Rutile, Leucoxene and Titanite (6.4%), "Garnets"<sup>3</sup> (1.2-1.5%), Apatite (0.9-1.1%), Monazite (0.2-0.4%) and Zircon (0.4%).

Magnetite concentrate recovered by DTR testing had greater than 63% Fe and less than 3%  $TiO_2$  and represented a 14-15% mass yield from HM composites.

Given the relatively high Iron (Fe) content and low content of Titanium and other impurities, Los Conchales Magnetite concentrate should attract a premium over other Titanomagnetite concentrates in the market which generally sell at a discount to Pilbara Fines (61.5% Fe) recently ranging from US\$125-\$US135 per tonne in Chinese ports.

Almost 60% of Andalusite is present as >90% liberated particles (compared with 30-40% at Heldmaier and Tres Chosas), that should favor recovery of a quality high grade product.

Indicative price range for Andalusite between US\$350/t and US\$450/t, world's largest producer Imery's predicting continued growth in demand and price rises.

Zircon and REE bearing Monazite are present in potentially recoverable quantities and are well liberated.

Los Conchales is located in unpopulated desert, adjacent to Panamerican Highway, 15 km from the Santa River, 25 km by road to Peru's largest steel smelter and 29 km by road to Chimbote Port.

Surface land Government owned. Favorable opinion obtained for long term usage, agreement process underway.

Excellent community relationships established – nearest community 11 km South of Los Conchales.

<sup>&</sup>lt;sup>1</sup> The latest global Conceptual Exploration Target (CET) for the Guadalupito Project was estimated at between 3.9 and 5.1 Billion tonnes with between 3.2% and 8.4% HM (weighted average 4.5 Bt @ 6.1% HM). A detailed explanation of the estimate was published on 21 November 2012. The potential quantity and grade is conceptual in nature, and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

<sup>&</sup>lt;sup>2</sup> "Magnetite" is the QEMSCAN determined Combined Iron Oxides which includes Magnetite, Hematite and Fe-Oxyhydroxides which are dominantly present as part of Magnetite particles as intergrowths.

<sup>&</sup>lt;sup>3</sup> "Garnets" is the sum of all QEMSCAN determined Almandine, Grossular and Andradite.

Latin Resources Limited (LRS.ASX) is pleased to announce that the total JORC compliant Inferred Resources at Guadalupito as estimated independently by Snowden Mining Industry Consultants (Snowden), has increased 371% from 392Mt with 17.6Mt of contained heavy mineral to 1,465Mt with 82.9Mt of contained heavy mineral. This has been achieved by the addition of a new JORC compliant Inferred Resource Estimate for the "Los Conchales" area which is 2 km to the east of the previously released JORC compliant inferred resource estimate for the "Heldmaier" area (Appendix 1, Table 3 and 2).

Mineralogical analysis performed on two initial Heavy Mineral (HM) composites showed that Magnetite<sup>4</sup> and Andalusite dominate the HM assemblage within the new resource area (22-25% and 21-24% of the HM respectively). A suite of Titanium minerals (Ilmenite, Rutile, Leucoxene and Titanite) make up an average 6.4%, with accessory minerals Zircon, Monazite, Garnets and Apatite all with some potentially viable commercial significance to be determined by further metallurgical test work (Appendix 2).

Other test work on the new HM composites has confirmed that a high Iron (greater than 63% Fe) and relatively low Titanium (less than 3%  $TiO_2$ ) magnetite concentrate can be produced in the laboratory and should be replicable by standard industrial processes (Appendix 2). Relatively low levels of Titanium and other impurities is a function of the high level of natural liberation of Magnetite at Guadalupito and should allow for a premium price over that of other Titanomagnetite concentrates in the market (Appendix 5).

Andalusite in the HM composites from "Los Conchales" is more liberated than that in any other HM samples evaluated from Guadalupito suggesting that a high purity Andalusite concentrate from the "Los Conchales" area should have impurities well below even the lower limits of Andalusite sold in existing markets. This in turn promises to open up a range of favourable alternatives for the sale of an Andalusite concentrate from the Project. Andalusite products are currently sold at between US\$350 and US\$450 per tonne into a range of markets.

Evaluation of the production of Titanium mineral and other concentrates including Zircon and Monazite from "Los Conchales" are expected to add further value streams to an eventual operation at Guadalupito. A brief description of the uses of the heavy minerals found at Guadalupito and their respective markets appears in Appendix 5.

Now that Guadalupito has a substantial resource base and a scoping study completed by Ausenco (published 19 September 2012), a variety of pathways towards production are being evaluated including a dry mining operation to take advantage of high HM content sand fraction resources and gold present above the water table at the "Heldmaier" area. Alternatively at Los Conchales the relatively low gravel content, shallow ( $\approx$ 1m) saline water table, and consistently well mineralized sediment pile over 40 m thick favours a large scale, low cost dredging operation.

In any development scenario, a streamlined pathway to production is facilitated at Guadalupito considering: excellent proximity to important infrastructure including highway, power, water, steel smelter and port (map in Appendix 1); the Government entity that owns much of the surface land has given a favourable technical opinion with respect to long term usage for mining and the process for achieving an formal agreement is well advanced and; excellent relations established with the local communities, the nearest located at the very southern limits of the Guadalupito concession package.

Latin's Managing Director, Mr Chris Gale commented "We are extremely pleased to post our third and most significant JORC resource at Guadalupito that is a real game changer for Latin. To have achieved almost 1.5 Billion tonnes of inferred resources after only 2 years of exploration is a significant feat and we look forward to further evaluating development alternatives for what has undoubtedly become a World Class Iron and Heavy Mineral Sands deposit, still with significant upside potential". Mr Gale went on to say, "With such a massive resource base, and promising product potential for Magnetite, Andalusite, Zircon, Monazite, Titanium and other minerals, Latin has laid the foundations for evaluating a significant multi-commodity operation and will continue to work towards realising the value of this considerable asset by expediting plans to move into production ".

<sup>&</sup>lt;sup>4</sup> "Magnetite" is the QEMSCAN determined Combined Iron Oxides which includes Magnetite, Hematite and Fe-Oxyhydroxides which are dominantly present as part of Magnetite particles as intergrowths.

#### For further information please contact:

#### Australia

Chris Gale Managing Director Latin Resources Limited +61 8 9485 0601

David Tasker PPR +61 8 9388 0944

#### About Latin Resources

Latin Resources Limited is a mineral exploration company focused on creating shareholder wealth through the identification and definition of mineral resources in Latin America, with a specific focus on Peru. The company has a portfolio of projects in Peru and is actively progressing its two main projects: Guadalupito Iron and Heavy Mineral Sands Projects and the Ilo Iron Oxide-Copper-Gold (IOCG) Projects.

**United Kingdom** 

finnCap (Broker)

**Elizabeth Johnson** 

+44 20 7220 0500

Ben Thompson

#### Competent person statement

The information in this report that relates to Geological and Geochemical Data, Exploration Results, Mineral Resources and any Conceptual Exploration Target is based on information compiled by Mr Andrew Bristow, a full time employee of Latin Resources Limited's Peruvian subsidiary. Mr Bristow is a member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralization and the type of deposit under consideration to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Bristow consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to "Los Conchales" Mineral Resources is based on information compiled by Mr Andy Ross, a full time employee of Snowden Mining Industry Consultants. Mr Ross is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralization and the type of deposit under consideration to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral resources and Ore Reserves (JORC Code). Mr Ross consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.



info@latinresources.com.au

www.latinresources.com

Allen & Caron

**United States** 

Rudy Barrio +1 212 691 8087

# APPENDIX 1 – MAP OF THE LOS CONCHALES, HELDMAIER and TRES CHOSAS RESOURCE AREAS

(Mineral Separation Plant, Water Pumping Station and HV Power Line are proposed Infrastructure only).



#### **GUADALUPITO RESOURCE ESTIMATE DETAILS**

Inferred Resource Block	Split <sup>1</sup>	Tonnes (Mt)³	HM in situ (%)	HM in Sand (%) <sup>4</sup>	Sand (%)⁴	Oversize (%)⁵	Fines (%) <sup>6</sup>
Heldmaier		42.6	7.4	15.2	61.3	37.3	1.7
Tres Chosas	Above Weter Table	41.8	8.9	12.0	78.7	19.6	1.8
Los Conchales	Above water Table	85.2	8.0	10.0	80.9	12.2	6.9
Total		169.6	8.1%	11.8%	75.5%	20.3%	4.3%
Heldmaier		93.0	4.6	6.4	82.7	11.2	6.2
Tres Chosas		214.5	3.0	3.3	89.0	4.6	6.3
Los Conchales		987.6	5.9	8.3	72.6	18.5	8.9
Total		1295.1	5.3%	7.3%	76.0%	15.7%	8.3%
Heldmaier		135.6	5.5	9.2	76.0	19.4	4.8
Tres Chosas	Total Inferred	256.3	3.9	4.8	87.3	7.1	5.6
Los Conchales	Resources	1072.8	6.1	8.4	73.2	18.0	8.8
Grand Total		1464.7Mt	5.7%	7.8%	75.9%	16.2%	7.8%

#### Table 1 – Total JORC Inferred Resource Estimates at Guadalupito as at 07/02/2013.

Snowden's new JORC Inferred Resource Estimate within the 1350 hectare "Los Conchales" area is 1,073Mt @ 6.1% total HM *in situ* (Table 2) using a 1% HM cut-off grade. Snowden's resource estimation criteria appear in Appendix 4. The estimate for the "Los Conchales" area was prepared using results of sample analyses from 53 drill holes (avg. 40 m deep), 430 pits (1 m deep) and 16 cased shafts (avg. 1.4 m deep). A map of the resource estimate outline for "Los Conchales" and the drill layout plan together with previously unreported drill results appear in Appendix 3, the remaining data were reported previously.

Table 2 – Los Conchales Area Inferred Resource Estimate	Table 2 –	"Los Conchales"	<b>Area Inferred</b>	Resource	Estimate
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Classification	Split <sup>1</sup>	Domain <sup>2</sup>	Tonnes (Mt)³	HM in situ (%)	HM in sand (%) <sup>4</sup>	Sand (%)⁴	Oversize (%) <sup>5</sup>	Fines (%) <sup>6</sup>
Inferred	Above water table	Sand	83.9	8.02	10.01	81.5	11.7	6.8
		Basal gravel	1.3	5.45	13.64	40.8	45.7	13.5
		sub-total	85.2	7.99	10.04	80.9	12.2	6.9
	Below water table	Sand	816.3	6.41	7.88	81.8	9.6	8.6
		Basal gravel	171.3	3.66	13.34	28.7	61.1	10.3
		sub-total	987.6	5.93	8.25	72.6	18.5	8.9
		Grand total	1,072.8 Mt	6.09%	8.41%	73.2%	18.0%	8.8%

#### NOTES TO TABLES 1 and 2:

Based on all drill, pit and shaft samples excavated below DTM generated from LIDAR survey.

A 1% HM cut-off has been applied to modeled HM grades.

<sup>1</sup>The resource has been split above and below logged and modeled water table.

<sup>2</sup>Wireframes were created to domain logged geological units of Gravel, Sand and Silt; All units above the logged basal gravel were combined as a Sand domain (sand dominant), the combined Sand domain and the Basal Gravel domain are reported.

<sup>3</sup>Density was based on the laboratory measured weights of individual 1m sonic drill samples. The data was analysed per each domain on which Snowden conducted least-square regression in relation to the assayed heavy mineral content.

<sup>4</sup>Sand is the sample -1mm +53μm size fraction and reflects a screened, deslimed ROM plant feed.

<sup>5</sup>Oversize is the sample +1mm size fraction.

<sup>6</sup>Fines is the sample -53µm size fraction.

#### <u>APPENDIX 2</u> – SUMMARY OF MINERALOGICAL STUDIES ON SAMPLES FROM LOS CONCHALES

#### The Composites

A series of detailed mineralogical studies were made on three Heavy Mineral (HM) composites prepared by CERTIMIN laboratories in Lima. HM was recovered by TBE separation of the -1mm+53µm fraction of drill samples that were broadly representative of three depth/geological horizons within the "Los Conchales" JORC Inferred Resource Estimate area (Table 3) and Figures 1-3. Of significance is that the HM composites prepared for mineralogical testing by compositing, in an appropriately weighted manner, large numbers of HM samples from within the resource area rather than relying on "single point" samples, making results much more representative of the overall material that would potentially be mined. At the same time, this methodology may mask variability in HM assemblage within the resource, which would be investigated in detail in future upgrades of resource category (indicated and measured). Testwork on LC-BASE was limited due to the size of the composite sample.

	LC-TOP	LC-BOTT	LC-BASE	
Hole Number	HM from Drill Interval Used to Make up Composite From – To (m)	HM from Drill Interval Used to Make up Composite From – To (m)	HM from Drill Interval Used to Make up Composite From – To (m)	
GUA-BL-042	18 to 23	23 to 27	No Sample	
GUA-BL-043	12 to 20	20 to 25.7	No Sample	
GUA-BL-044	18 to 20	20 to 27	No Sample	
GUA-BL-045	0 to 19	19 to 39	No Sample	
GUA-BL-178	0 to 20	20 to 42	No Sample	
GUA-BL-179	0 to 20	20 to 45	45 to 48	
GUA-BL-180	0 to 20	20 to 39	No Sample	
GUA-BL-181	0 to 18	18 to 36	36 to 39	
GUA-BL-182	0 to 11	11 to 23	23 to 36	
GUA-BL-183	0 to 14	14 to 30	30 to 36	
GUA-BL-184	0 to 15	15 to 40	40 to 42	
GUA-BL-185	0 to 20	20 to 42	No Sample	
GUA-BL-186	0 to 16	16 to 27	27 to 36	
GUA-BL-187	0 to 16	16 to 29	29 to 33	
GUA-BL-188	0 to 19	19 to 36	36 to 39	
GUA-BL-189	0 to 18	18 to 27	No Sample	
TOTAL SAMPLES	241	245	43	
TOTAL WEIGHT <sup>1</sup>	719 g	734 g	125 g	
Avg. HM In Situ <sup>2</sup>	6.7%	7.3%	3.4%	
Avg HM in Sand <sup>3</sup>	8.0%	8.4%	12.6%	

#### Table 3 –Sample make up of each HM composite.

<sup>1</sup> Weights of the HM fraction (S.G.>2.96) separated from each aliquot of sand (-1mm+53µm) fraction from each sample by CERTIMIN were composited in a weighted manner to proportionally represent the *"in situ"* HM content of each sample that made up the composite.

*"in situ"* HM content of each sample that made up the composite. <sup>2</sup> Arithmetic average %HM *in situ* of the samples used to make the HM composite based on CERTIMIN results (TBE, S.G. 2.96).

<sup>3</sup> Arithmetic average %HM in sand fraction (-1mm+53µm) of the samples used to make the HM composite based on CERTIMIN results (TBE, S.G. 2.96).







#### Heavy Mineral Assemblage

Three heavy mineral composites (LC-TOP, LC-BOTT and LC-BASE) that broadly represent upper and lower levels of the sand unit and the basal gravel unit of the JORC inferred resource at Los Conchales were prepared by combining in a weighted fashion, Heavy Mineral recovered by TBE (>S.G. 2.96) separation of -1mm+53µm material wet sieved from 241, 245 and 43 samples respectively. Each composite was subject to Davis Tube Recovery (DTR) testing at a variety of magnetic intensities by CERTIMIN laboratories in Lima with magnetic and non-magnetic products of LC-TOP and LC-BOTT analysed by XRF at ALS laboratories in Lima. DTR testing was also undertaken on LC-TOP and LC-BOTT by AMDEL laboratories in Australia with a series of magnetic and non-magnetic products from a variety of magnetic intensities analysed by XRF and ICP. AMDEL also undertook QEMSCAN mineralogical determination combined with XRF and ICP analysis of each of the LC-TOP and LC-BOTT HM composites (Table 4).

The dominant minerals present were the "Combined Fe-oxides" including magnetite with intergrowths of other Fe-oxides averaging 23.6% of the HM and Andalusite which averaged 22.6% of the HM. The Titanium minerals present were Ilmenite, Titanite, Rutile, Leucoxene and Silica bearing Titanium Oxide (in order of abundance) and which together totalled an average of 6.4% of the HM. The garnet group of minerals averaged 1.4%, Apatite 1.0%, Zircon 0.2% and Rare Earth Element (REE) bearing Monazite 0.3% of the HM respectively (Table 4). In contrast with the QEMSCAN results, XRF and ICP analysis of both Composites and their respective multiple magnetic and non-magnetic fractions resulting from DTR testing, revealed very similar concentrations of Zr and Rare Earth Elements (REE) which if back calculated to equivalent Zircon and Monazite contents were equivalent to 0.4% and 0.24% respectively for both Composites.

By comparison with previously reported (16 August 2012) mineral assemblage data from the "Heldmaier" and "Tres Chosas" JORC inferred resource areas, the Los Conchales assemblage is quite similar with slightly lower proportions of Magnetite and Andalusite, higher total Titanium Minerals (due to higher proportions of Ilmenite and Titanite), slightly lower total Garnet content, comparable Zircon, and with the notable addition of REE bearing Monazite.

	Los Conch Inferred Re	nales JORC source Area
	LC-TOP	LC-BOTT
HM <sup>1</sup> in situ (%)	6.7	7.3
HM <sup>2</sup> in sand	8.0	8.4
(-1mm+38um) fraction (%)	0.0	0.4
Combined Fe-oxides (%) <sup>3</sup>	22.2	24.9
Andalusite (%)	24.1	21.1
Sum of Titanium minerals (%) <sup>4</sup>	6.4	6.4
Rutile (%)	0.2	0.1
Leucoxene (%)	0.1	0.1
Ilmenite (%)	2.6	3.0
Titanite (%)	3.3	3.1
Silica Bearing Titanium Oxides (%)	0.2	0.1
Garnet Group minerals (%) <sup>5</sup>	1.2	1.5
Almandine (%)	0.4	0.4
Grossular (%)	0.1	0.0
Andradite (%)	0.7	1.1
Apatite (%)	1.1	0.9
Monazite (%) <sup>6</sup>	(0.24) 0.2	(0.24) 0.4
Zircon (%) <sup>6</sup>	(0.4) 0.1	(0.4) 0.3
Gangue (%) <sup>7</sup>	44.9	44.6

# Table 4 – Heavy Mineral Assemblage (>2.96 S.G.) of two composites representing broadly upper and lower portions of the "Los Conchales" JORC Inferred Resource Area.

<sup>1</sup> Arithmetic average %HM *in situ* of the samples used to make the HM composite based on CERTIMIN results (TBE, S.G. 2.96).

<sup>2</sup> Arithmetic average %HM in sand fraction (-1mm+53µm) of the samples used to make the HM composite based on CERTIMIN results (TBE, S.G. 2.96).

<sup>3.</sup> "Combined Fe-Oxides" is the sum of all Iron Oxides (including Magnetite) which are dominantly present as part of Magnetite particles as intergrowths.

<sup>4</sup> "Titanium Minerals" include Ilmenite, Rutile, Leucoxene, Titanite and Silica Bearing Titanium Oxides.

<sup>5</sup> "Garnets" include Almandine, Grossular and Andradite.

<sup>6.</sup> Both Monazite and Zircon were detected in relatively low proportions. Reconciliation with XRF and ICP analyses of the HM composites revealed very similar contents of both Zr and REE concentrations which represented 0.4% Zircon and 0.2% Monazite in both Composites. <sup>7.</sup> Gangue Minerals form the balance of Heavy

<sup>7.</sup> Gangue Minerals form the balance of Heavy Minerals and include Pumpellyite-Prehnite, Amphibole, Quartz, Feldspar, Chlorite, Micas, and other Silicates (those that are not strictly HM may be present in composite grains with other HM).

#### Magnetite Quality

Davis Tube Recovery testing was undertaken by AMDEL Laboratories in Australia to determine the mass recovery and quality of magnetically recovered Magnetite. Composites LC-TOP and LC-BOTT were tested at a range of magnetic intensities from 400 through to 4000 Gauss (Figure 4) and in both cases following an initial peak in mass recovery at around 600 Gauss, lower recoveries were determined up to 1000 Gauss with mass recovery only superior to the 600 Gauss recovery from 1500 Gauss. Similar curves were obtained from DTR testing of subsamples of both Composites undertaken by CERTIMIN laboratories in Lima.



Figure 4 – Davis Tube Recovery curves for Heavy Mineral Composites LC-TOP and LC-BOTT broadly representing upper and lower horizons of the sand unit within the "Los Conchales" JORC Inferred Resource.

Magnetic products obtained from DTR testing of the LC-TOP and LC-BOTT composites at a variety of magnetic intensities were subject to chemical analysis by XRF and ICP to determine the quality of each product (Table 5). Both composites achieved close to peak recovery of magnetite at 600 Gauss and the resulting magnetic product reported exceptional quality for an Iron Sand with total Fe (%) greater than 63% and TiO<sub>2</sub> less than 3% in both cases.

Concentrations of  $Al_2O_3$ ,  $SiO_2$ , P and  $SO_3$  were all within acceptable limits and  $V_2O_5$  content (along with the major elements) were similar to those obtained from mineralogical work on Magnetite from the "Heldmaier" and "Tres Chosas" JORC Inferred resource areas (published 16 August 2012).

# Table 5 – XRF/ICP Analysis of Magnetic Products from DTR testing at different Magnetic Intensities of Composites LC-TOP and LC-BOTT broadly representing upper and lower horizons of the sand unit within the "Los Conchales" JORC Inferred Resource.

	DTR (%)	Fe (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)	TiO <sub>2</sub> (%)	P (%)	SO₃ (%)	V <sub>2</sub> O <sub>5</sub> (%)
		XRF	XRF	XRF	XRF	XRF	XRF	ICP
LC-TOP 400G Mags	12.3	63.4	1.3	4.4	2.8	0.08	0.30	0.36
LC-TOP 600G Mags	15.0	63.4	1.3	4.5	2.9	0.08	0.27	0.38
LC-TOP 700G Mags	14.7	63.1	1.3	4.7	2.9	0.08	0.29	0.40
LC-TOP 800G Mags	13.9	62.3	1.4	5.3	3.0	0.08	0.31	0.41
LC-TOP 900G Mags	13.4	61.8	1.5	5.6	3.0	0.08	0.29	0.39
LC-TOP 1000G Mags	14.8	62.5	1.4	5.1	3.0	0.08	0.31	0.41
LC-TOP 1500G Mags	15.3	61.9	1.5	5.6	3.1	0.08	0.32	0.39
LC-TOP 4000G Mags	16.6	59.7	1.8	7.1	3.6	0.09	0.30	0.38
LC-BOTT 400G Mags	10.7	64.6	1.1	3.5	2.6	0.08	nd	0.35
LC-BOTT 600G Mags	14.0	63.3	1.3	4.4	2.8	0.08	nd	0.33
LC-BOTT 700G Mags	12.9	61.7	1.6	5.7	3.0	0.09	nd	0.30
LC-BOTT 800G Mags	13.7	62.0	1.6	5.5	3.0	0.09	nd	0.28
LC-BOTT 900G Mags	13.3	61.8	1.6	5.7	2.9	0.09	nd	0.27
LC-BOTT 1000G Mags	13.3	61.5	1.6	5.7	3.0	0.09	nd	0.27
LC-BOTT 1500G Mags	14.2	60.9	1.7	6.2	3.1	0.09	nd	0.26
LC-BOTT 4000G Mags	14.0	57.1	2.2	8.8	3.6	0.10	0.05	0.24

# Andalusite Quality

QEMSCAN analysis by AMDEL of Andalusite in the LC-TOP and LC-BOTT composites from the "Los Conchales" JORC Inferred Resource show significantly greater degree of liberation compared with AMDEL's QEMSCAN analysis of HM from composites from the "Heldmaier" and "Tres Chosas" JORC Inferred Resources that were reported previously. At Los Conchales the almost 60% by weight of the Andalusite particles in the samples analysed were >90% Andalusite by area, whereas at Heldmaier and Tres Chosas, only 30-40% by weight of the Andalusite particles analysed were >90% Andalusite by area (Table 6 and 7). This is promising data which suggests a greater probability of obtaining a high purity Andalusite concentrate at Los Conchales relative to the other evaluated areas.

Table 6 - Liberation data of Andalusite in HM composites derived from the "Los Conchales	" JORC
Inferred Resource.	

Area%	LC-TOP LC-BOTT		
Andalusite	Mass% A	ndalusite	
90-100%	58.1	59.7	Liberated
80-90%	26.0	25.1	Llink
70-80%	9.0	10.3	Middling
60-70%	4.4	3.1	wilduning
50-60%	1.2	0.8	Low
40-50%	1.0	0.7	LOW
30-40%	0.1	0.1	wilduning
20-30%	0.0	0.1	
10-20%	0.1	0.0	Locked
0-10%	0.0	0.0	
TOTAL	100.0	100.0	

Area%	Heldmaier Sth Shaft	Heldmaier Nth Shaft	Tres Chosas Sth Shaft Mass% Andalusi	Tres Chosas Nth Shaft	Heldmaier Sth Drill	
Allualusite	10.0	05.0				
90-100%	40.3	35.2	35.3	31.2	32.0	Liberated
80-90%	25.7	24.3	25.5	30.0	28.4	Lliab
70-80%	14.2	13.9	18.3	18.4	19.6	Middling
60-70%	8.3	9.5	10.0	9.5	9.7	wilduning
50-60%	6.2	6.2	5.4	4.6	4.9	
40-50%	3.9	5.8	3.1	3.6	2.7	Low Middling
30-40%	0.7	3.3	1.3	1.0	1.7	
20-30%	0.4	0.9	0.6	1.6	0.6	
10-20%	0.2	0.8	0.3	0.1	0.1	Locked
0-10%	0.1	0.2	0.1	0.0	0.1	
TOTAL	100.00	100.00	100.00	100.00	100.00	

 Table 7 – Liberation data of Andalusite in HM from composites derived from the "Heldmaier" and "Tres

 Chosas" JORC Inferred Resources.

Latin is evaluating process methodology for the separation of a saleable Andalusite product, and the data from Los Conchales are encouraging given the dominant component of global JORC Inferred Resources represented by the "Los Conchales" area.

# Zircon Quality

While a relatively minor component of the Mineral Assemblage at Los Conchales, Zircon is well liberated and may be more abundant than the QEMSCAN results from the LC-TOP and LC-BOTT composites suggest. Certainly XRF results from analysis of the composites and the magnetic and non-magnetic components of DTR testing would suggest a slightly higher percentage of overall Zircon content. In addition, the nature of such composites that incorporate large numbers of samples is such that fluctuations in the Zircon content in different parts of the resource are not detected. Future work at Los Conchales will in part focus on determination Zircon content with much greater precision throughout the resource area. Logging of drill samples also suggested a higher Zircon content which was a significant observed component of panned concentrates that were observed as part of the logging procedure. As such a high value component of the Heavy Mineral assemblage, much work remains to be completed to accurately determine Zircon content as it is present in a well liberated form (Figure 5) that should recover well by standard mineral sands processing technology.

Figure 5 – QEMSCAN images of Zircon particles in sample composites from Los Conchales showing grain size and degree of liberation (magenta colouring represents Zircon).

I 4.9 μm
# 10.0 μm
1000.0 μm

#### Monazite Quality

Monazite is not as liberated as Zircon, but QEMSCAN imagery of REE dominated particles shows a high proportion of Monazite (coloured purple in Figure 6), suggesting that established mineral sands processing technology may recover a monazite dominant REE product well.

# Figure 6 – QEMSCAN imagery of REE dominant particles in sample composites showing mineralogy dominated by Monazite represented by purple colour.

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	I 4.9 μm ⊮ 10.0 μm ⊢ 1000.0 μm

# <u>APPENDIX 3</u>: LOS CONCHALES JORC INFERRED RESOURCE AREA WITH DRILL HOLE LAYOUT INDICATING HOLES WITH RESULTS PREVIOUSLY REPORTED AND HOLES WITH RESULTS REPORTED HERE (TABULATED FOLLOWING).



HOLE ID	TOTAL DEPTH OF HOLE	DEPTH TO WATER TABLE (m)	FROM (m)	TO (m)	INTERVAL (m)	% Oversize (+1mm)	% Sand (-1mm +53μm)	% Undersize (-53um)	HM (%) in Sand fraction	HM (%) TOTAL assuming no HM in either OS or US	Au (g/t) in Sand Fraction	Au (g/t) in Undersize	SEDIMENT UNIT					
		-	0	1	1	6.0	88.5	5.5	9.3	8.2			SAND					
			1	3	2	63.1	30.4	6.5	1.6	0.6			CONGLOMERATE					
	45.0	0.6	3	5	2	6.4	65.7	27.9	5.3	3.5			SILT					
GUA-BL-219	45.0	0.0	5	39	34	6.9	84.7	8.4	8.2	6.9			SAND					
			39	41	2	30.7	52.3	17.0	11.7	6.1			SILT					
			41	45	4	46.5	44.5	9.1	10.7	4.5			CONGLOMERATE					
	38.0	0.5	0	34	34	7.3	84.4	8.3	7.4	6.3			SAND					
GUA-BL-220	30.0	0.5	34	38	4	52.7	39.6	7.8	13.0	4.7			CONGLOMERATE					
	1 47.0 1.5		0	18	18	5.8	87.6	6.6	11.5	10.1			SAND					
CUA BL 221		15	18	20	2	11.9	72.4	15.7	10.5	7.6			SILT					
GUA-BL-221	47.0	1.5	20	32	12	5.7	86.4	7.9	10.7	9.3			SAND					
									32	47	15	63.2	27.1	9.7	14.1	3.7		
			0	21	21	7.0	84.3	8.7	8.5	7.1			SAND					
GUA-BL-222	11.0	1.0	21	23	2	3.2	69.6	27.3	7.8	5.6			SILT					
007-06-222	44.0	1.0	23	38	15	5.9	87.3	6.8	10.8	9.4			SAND					
			38	44	6	54.8	36.8	8.4	12.0	4.4			CONGLOMERATE					
GLIA-BL-223	38.0	31	0	29	29	6.3	87.0	6.7	10.5	9.0			SAND					
00A-DE-223	50.0	5.4	29	38	9	58.7	31.3	10.0	12.5	4.0			CONGLOMERATE					
GUA-BL-224	38.0	11.0	0	32	32	8.5	81.8	9.7	10.6	8.7			SAND					
GUA-DL-224	30.0	11.0	32	38	6	55.0	33.9	11.0	12.6	4.2			CONGLOMERATE					
			0	16	16	1.9	89.3	8.7	10.8	9.7			SAND					
GLIA-BL-225	41.0	15.0	16	18	2	41.6	52.9	5.5	13.1	6.9			CONGLOMERATE					
GUA-BL-225	41.0	15.0	18	25	7	13.8	80.7	5.5	12.0	9.5			SAND					
			25	41	16	53.5	39.0	7.5	12.5	4.6			CONGLOMERATE					

Averaged drill hole results over intervals of like sedimentary unit. Results >10% HM are in MAGENTA, <10%>2.5% HM are in RED, <2.5%>1.0% GREEN, <1.0% BLACK.

)	HOLE ID	TOTAL DEPTH OF HOLE	DEPTH TO WATER TABLE (m)	FROM (m)	TO (m)	INTERVAL (m)	% Oversize (+1mm)	% Sand (-1mm +53μm)	% Undersize (-53um)	HM (%) in Sand fraction	HM (%) TOTAL assuming no HM in either OS or US	Au (g/t) in Sand Fraction	Au (g/t) in Undersize	SEDIMENT UNIT
ſ	GUA-BL-226	38.0	16.0	0	2	2	47.7	48.5	3.8	14.7	7.0			CONGLOMERATE
				2	15	13	0.3	92.0	7.7	10.0	9.2			SAND
				15	17	2	3.7	79.8	16.6	11.0	8.8			SILT
				17	26	9	54.0	41.5	4.5	13.7	5.7			CONGLOMERATE
				26	28	2	2.7	94.2	3.1	10.9	10.3			SAND
				28	38	10	63.0	24.8	12.2	15.8	3.8			CONGLOMERATE
-	GUA-BL-227	32.0	11.3	0	4	4	3.4	93.3	3.3	12.7	11.8			SAND
				4	7	3	50.1	44.0	5.9	14.7	6.4			CONGLOMERATE
				7	16	9	11.7	80.5	7.8	12.3	9.9			SAND
				16	18	2	50.2	43.9	5.8	12.1	5.3			CONGLOMERATE
				18	25	7	1.2	94.5	4.4	8.7	8.3			SAND
				25	32	7	65.0	25.8	9.2	13.8	3.6			CONGLOMERATE
	GUA-BL-228	38.0	5.3	0	21	21	5.4	85.0	9.6	10.5	8.9			SAND
				21	38	17	64.1	24.1	11.8	13.5	3.0			CONGLOMERATE
	GUA-BL-229 35.0	35.0	1/1 3	0	22	22	5.8	84.3	10.0	9.3	7.8			SAND
		14.0	22	26	4	0.0	93.9	6.1	3.9	3.7			SAND	
	GUA-BL-230	50.0	1.7	0	18	18	3.3	91.7	4.9	3.5	3.2			SAND
				18	20	2	47.7	44.5	7.8	9.0	4.5			CONGLOMERATE
				20	22	2	2.6	58.4	39.0	6.9	4.1			SILT
				22	29	7	3.5	86.7	9.8	8.7	7.5			SAND
				29	32	3	2.6	72.8	24.7	7.3	5.1			SILT
				32	43	11	2.0	89.8	8.1	8.9	8.0			SAND
				43	49	6	4.0	66.3	29.7	4.4	3.0			SILT
				49	50	1	46.3	30.9	22.8	10.2	3.1			CONGLOMERATE

HOLE ID	TOTAL DEPTH OF HOLE	DEPTH TO WATER TABLE (m)	FROM (m)	TO (m)	INTERVAL (m)	% Oversize (+1mm)	% Sand (-1mm +53μm)	% Undersize (-53um)	HM (%) in Sand fraction	HM (%) TOTAL assuming no HM in either OS or US	Au (g/t) in Sand Fraction	Au (g/t) in Undersize	SEDIMENT UNIT
	59.0	1.8	0	18	18	2.3	93.5	4.3	6.3	5.8			SAND
			18	23	5	16.6	65.4	18.0	7.3	5.0			SILT
			23	29	6	3.4	91.6	5.0	11.1	10.2			SAND
GUA-BL-231			29	31	2	4.5	71.7	23.7	6.1	4.4			SILT
			31	42	11	3.5	88.8	7.7	7.7	6.7			SAND
			42	54	12	7.5	68.8	23.6	4.6	3.2			SILT
			54	59	5	50.1	35.3	14.6	10.5	3.7			CONGLOMERATE

The drill holes were sampled every metre interval, with the majority of samples representing all material recovered. In some cases where the nature of the material allowed for halving of the sonic drill core, half core samples were taken. All samples were submitted to the CERTIMIN Peru laboratory in Lima, and were subject to size fractionation (+1mm, -1mm+53µm and -53µm), with the -1mm+53µm fraction subject to dense liquid separation (TBE, SG 2.96) to determine total heavy mineral content. Gold was not assayed in these holes given consistently low gold results in previous holes at Los Conchales.

180° PANORAMA OF THE LOS CONCHALES JORC INFERRED RESOURCE AREA



# <u>APPENDIX 4</u> – SNOWDEN RESOURCE ESTIMATION CRITERIA – LOS CONCHALES

Criteria	Explanation						
SAMPLING TECHNIQUE	ES AND DATA						
Drilling & Pitting Techniques.	Vertical sonic holes: 53 holes by Boart Longyear track mounted 600C rig (BL) utilising a 6" core barrel, run ahead of 7" casing, producing a 5.5" diameter core. 16 1m diameter cased Shaft pits dug and sampled to water table. 430 1m deep, hand excavated pits.						
Sampling Techniques.	Sonic core drilling samples (2,132 ~1m samples). Cased Shaft samples (23 ~1m samples). Gravel/conglomerate horizon Pit samples (430 1m samples).						
Drill sample recovery.	Sample quality is logged at time of drilling. No relationship between grade and recovery is known to exist.						
Logging.	Sonic core samples were logged at 1 m intervals for lithology, colour, grain size, magnetic susceptibility, observed mineral species and water table. Chip trays of small, representative samples were made for each hole and all sonic core samples were photographed.						
Sub-sampling techniques and sample preparation.	Samples were collected in their entirety on site and weighed. If sand only was recovered from a 1 m interval, this core was split in half vertically, the weight of each half recorded and the half not dispatched to laboratory stored in Latin Resources' sample prep facility at Santa. Such half core samples and full core samples were then transported to Certimin, an internationally accredited laboratory, in Lima.						
Quality of assay data and laboratory tests.	Samples were assayed by Certimin: Dry weight was determined, then sample wet sieved in its entirety to produce dried and weighed products; +1mm, -1mm+53µm and -53µm. %HM was determined via TBE (2.96sg) separation on an accurately weighed aliquot of around 100g sand (-1mm +53µm) fraction.						
Verification of sampling and	Replicate samples taken at rate of approximately 1 in 40 for check assay at original						
assaying. Location of data points.	Drill collars, Pits & Shafts were located by GPS and these points projected to a DTM that was created from a LIDAR topographic survey.						
Data spacing and distribution.	Drill holes are nominally spaced 400m apart on lines between approximately 600 m to 1km along trend of the fossil shoreline. Assay results have been completed for every hole, with the sampling interval being 1 metre.						
Orientation of data in relation to geological structure.	Drill lines are oriented normal to the orientation of the mapped fossil shoreline features. No biased sampling of structure has occurred.						
Audits or reviews.	None.						
Mineral tenement and land tenure status.	The resource lies within 24,805 ha of claims that Latin has under concession or option for its Guadalupito Project.						
Exploration done by other parties.	None for this resource estimate.						
Geology.	The deposit is a shoreline sediment system hosting titaniferous magnetite, mineral sands and gold.						
ESTIMATION AND REPORTING	G OF MINERAL RESOURCES						
Database integrity.	All samples were logged by qualified geologists and entered into Microsoft Access databases, with validation undertaken at various stages. Assay data was provided to Latir Resources electronically by Certimin Labs and validated prior to assimilating into the database. Latin Resources and Snowden undertook database validation that included missing and overlapping intervals, duplicate samples, missing coordinates and hole_id mismatches.						
Bias checks.	Snowden used Q-Q plots to check the following: BL holes vs Shafts - there is no apparent bias.						
Geological interpretation.	Sectional interpretation and variography shows good continuity both along and across the trend of the deposit. The Snowden geological model incorporates surface wireframes in Datamine format created from geological logging of sonic drilling and pit data.						
Dimensions.	The mineral resource estimate has been carried out over a 1350 ha area within Latin's overall concession area of 24,805 ha. The overall mineralized shoreline system is 45 km long, up to 4 km wide and 15 to 45 m thick						

Variography.	For the sand domain, normal scores variograms were generated due to the skewed nature of the data. It was not possible to generate variograms for gravel or silt domains due to insufficient data. Variography shows good continuity both along and across the trend of the deposit.
Estimation and modelling techniques.	Ordinary kriging interpolation was employed for assays. The model and data was constrained by wireframes reflecting surface topography and geological units (gravel, sand and silt). The same search ellipse was used to interpolate data for each domain. Three passes of increasing range were employed and the maximum number of samples allowed from each hole was restricted to 4. Other criteria: Mineralisation extends 100m past the last drillhole . Mineralisation extends 1m below drillhole or to the top of silt Mineralisation extends over 2 or more sections (1000m spacing).
Cut-off parameters.	Mineralisation occurs to the surface. A 1% HM cut-off was employed to define base of mineral resource. The LIDAR derived DTM defines the deposit surface and certain concessions demarcate some boundaries. Various geological parameters define sedimentary facies and hence domain boundaries.
Mining factors or assumptions.	No mining factors are built into this inferred resource. The deposit is likely to be mined by a combination of conventional dry mining and dredging methods. No topsoil or vegetation occurs over the project area.
Metallurgical factors or assumptions.	There is nothing to indicate that the deposit could not be processed by traditional methods employed for iron sands and mineral sand deposits.
Bulk density.	Based on the laboratory measured weights of individual 1m sonic drill samples. The data was analysed per each domain on which Snowden conducted least-square regression in relation to the assayed heavy mineral content.
Moisture.	The bulk density is estimated on a dry basis.
Classification.	The resource estimate is classified as inferred based on criteria set out in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC, 2004). Approximately 40% of the resource data has been extrapolated.
Note.	The HM (Heavy Minerals) referred to in this report are all those minerals that have a specific gravity greater than 2.96, as determined by heavy liquid separation. The amount of Valuable Heavy Mineral (VHM) such as Magnetite, Ilmenite, Rutile, Zircon and Andalusite has not as yet been determined in every sample. Some preliminary mineralogy work has been undertaken and reported. The HM% values do not imply that all of the HM is VHM.

#### **APPENDIX 5 – MINERAL USES AND MARKET INFORMATION**

#### Magnetite

Magnetite ores comprise about 40-50% of the iron ore consumed by the worlds steel industry and are steadily increasing in market share as high quality Hematite resources become depleted.

Titaniferous magnetite ores are a sub-catagory of the traditional magnetites because of a slightly higher content of Titanium and Vanadium and form a niche market segment of the larger iron ore industry.

Titanomagnetite is used in pellet and sinter production, typically as a blend with ores containing less titanium. The typical use of titanomagnetite is as a secondary feedstock to hematite or magnetite ores and the proportion used is dictated by the chemical analysis of the primary feed.

Technological advancements particularly in the field of Direct Iron Reduction (DRI), a replacement technology for the Blast Furnace that has enabled companies to use lower grade feed sources such as the titanomagnetite as the primary input into iron making with no economic impact from the higher titanium content.

The adoption of DRI technology in the developing nations, notably in India and recent legislation changes in China favouring the installation of DRI capacity as a result of its environmental advantages over Blast Furnaces has potentially opened up new markets for magnetites derived from iron sands.

Technologies such as DRI processes are expected to continue to enhance titanomagnetite demand as steel manufacturers become increasing capable of using lower grade feed sources.

Steel manufactures that use DRI processes can use titanomagnetite as a direct primary feed making it an ideal feed source.

Taharoa Iron Sands (Blue Scope Steel) having been one of the longest running commercial iron sands producers in the world and can be considered a benchmark in terms of pricing. Titanomagnetites are generally indexed against the Pilbara High Grade (HG) Fines (61.5% Fe), recently ranging in price between US\$125 and US\$135 per tonne in Chinese Ports. Magnetite from Guadalupito is expected to command a slight premium against those lower grade titanomagnetites currently produced due to its relatively higher Iron content and lower Titanium.

#### Andalusite

Andalusite, together with the polymorphs Sillimanite and Kyanite share the composition  $Al_2SiO_5$  which makes them highly refractory. Sillimanite group minerals are mainly used in the production of mullite or high-alumina refractories with 95% of the world's consumption of these minerals being used for this purpose in the manufacture of steel, other metals, glass, ceramics, aluminium and cement.

The refractory industry is the principal user with Andalusite being a component of both shaped and unshaped refractories and hence developed countries with significant steel, aluminium, foundry and glass industries are all users of Andalusite.

Andalusite prices have shown a steady increase since 2000 as demand by the steel industry has increased. On USGS figures the steel industry uses 10 to 14kgs of refractories (including Andalusite) for each tonne of steel.

Besides refractories, Andalusite is used in the production of high alumina, wear resistant tiles and recently as a replacement for opacifier grade zircon in the production of certain types of wall and floor tiles. Other uses include foundry coatings, foundry sands, fine ceramics using low iron Andalusite and technical/laboratory ceramics.

The long term forecast for the Andalusite industry is particularly good thanks to its potential as a substitute for bauxite. With the supply of Chinese bauxite becoming increasingly unreliable due to export restrictions, and greatly increasing prices, non-Chinese Andalusite is seen as a stable and freely available substitute in high alumina refractories. Insecurity of bauxite supply has permeated the industry, and this bodes well for the Andalusite suppliers who have, almost without exception, started new operations or expanded existing operations.

Andalusite mineral pricing varies significantly depending on quality factors such as sizing, purity, packaging and shipment. Indicative pricing suggests a range between US\$350 and US\$450 per tonne.

Imerys, one of the world's largest suppliers of refractory materials predicts ongoing price rises in 2012 and beyond due to continuing strong demand.

#### Titanium minerals Rutile, Ilmenite & Leucoxene

About 95% of all titanium-bearing mineral products produced in the world are used in the titanium dioxide (TiO<sub>2</sub>) pigment industry. Titanium dioxide is used predominantly as an opaque white pigment to impart whiteness, brightness and opacity. Titanium dioxide pigment is the premier white pigment and is used in UV-resistant paint and plastics, high-quality paper, rubber, ceramics, fabric, toothpaste, soap, cosmetics, food and sunscreens. Other important properties of titanium dioxide include its chemical inertness, resistance to UV degradation and thermal stability over a wide range of temperatures.

The three minerals are differentiated by their varying titanium dioxide content with Rutile having approximately 95% TiO<sub>2</sub>, Luecoxene 75-90% TiO<sub>2</sub> and Ilmenite 45-65% TiO<sub>2</sub>.

Rutile, Ilmenite (and Leucoxene) are also used as sources of titanium metal and in flux coatings on welding rods. Titanium metal is used mainly where lightweight, strong and corrosion-resistant materials are required. It is used to form surgical components, such as heart pacemakers and artificial limbs/joints, as it is the only metal not rejected by the body, or as a lightweight metal for aerospace components.

Rutile and Ilmenite have increased in price dramatically over the past two years and prices are expected to remain high for the foreseeable future.

Rutile prices have increased from long term averages of US\$650 per tonne rising in the last year to over US\$2200 per tonne and are expected to stabilize longer term at between US\$1200 and US\$1400 per tonne.

Historical long term prices for Ilmenite has been between US\$90 and US\$110 per tonne but in the last few years have risen to between US\$300 and US\$400 per tonne. Post 2015, Sulphate Ilmenite is expected to stabilize in the range of US\$170 and US\$200 per tonne.

#### Zircon

Zircon is generally considered a by-product or co-product in the extraction of Ilmenite or Rutile. About half the world's zircon production is used in the ceramic industry in glazes (to provide opacity) and to whiten ceramic bodies — including wall tiles, dinnerware, sanitary ware and decorative ceramics. Zircon is widely used in TV screens and computer monitors to prevent radiation leakage. Industrial ceramics containing Zircon are used in refractory applications requiring resistance to heat and abrasion. Other uses of zircon include: the production of zirconium metal for use in pollution-control equipment and camera flash-bulbs; cubic zirconia crystals as a synthetic gem; rapidly rechargeable lightweight batteries; zirconium hydride in flares and fuses; and stannous hexafluorozirconate as an ingredient in toothpaste to prevent tooth decay.

Zircon prices have increased dramatically in the last two years from a long term average of US\$800 per tonne to more than US\$2400 per tonne over the past year or so and are expected to stabilize in the range of US\$1600 to US\$2000 per tonne over the next several years.

#### Garnets

Garnets are being increasing used in multiple applications as an abrasive due to their sharp sub rounded to sub angular chisel-edged fracture planes, little or no free silica content, high bulk density, and high resistance to physical and chemical attack.

Various applications for Garnet as an abrasive include coated and bonded abrasives (e.g. sandpapers and derivatives), airblast abrasives (used in shipbuilding and repair, industrial painting, powder coating, pipe and tank cleaning), precision powders (used in specialty grinding and finishing, abrasive cleaners and tumbling media), and waterjet cutting (highly pressurized water with a garnet abrasive is used as a highly efficient and precise cutting tool in cold cutting applications).

Additional uses for Garnets are in filter beds in water and wastewater treatment, and as an adhered coating for non-skid surfaces.

USGS estimates global production of Garnets have increased 10 fold over the last 20 years to over 1.4 million tonnes per annum with prices in this period ranging from US\$230 to US\$330 per tonne.