

Detailed Heavy Mineral Analysis

Our Job No.: 06027
Disc No.: -

Sample No: **A102801**

Overall Sample Assessment: **Positive**

Your Project Code: NT

Sample Type (as collected):	Bulk Sample	Head Weight	467.8 kg
Sample Type (as received):	Bulk Sample	Wet Weight	kg
Observed Sample Type:	DMS Concentrate		

Diamond	Number of particles in each size fraction								Total particles	Description of these particles	
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20			+0.10
Diamond									12	12	microdiamonds of approx 100um size recovered in the +0.25mm fused residue

Key Minerals	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)		
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20							+0.10	
Chromite/Cr-Spinel									5		5		B			
											MW	B1				
																black, finely frosted, rounded octahedra
Synthetic Diamonds									18		18		C			
																yellow
												C1				

Other Minerals	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20						
Almandine			3	Tr			10		Tr	MW	rose pink, candy pink	subrounded glassy	translucent	irregular
Al-Spinel				Tr			Tr			W	grey-blue	subrounded glassy	translucent	ovate
Anatase				Tr			Tr			MW	greyish-yellow, grey-blue	subrounded submetallic	translucent	irregular
Barite				Tr			Tr			W	white	subangular dull	opaque	blocky, frosted, etched
Corundum			Tr	Tr			Tr		Tr	MW	yellow, pink	subangular glassy	transparent	blocky
Fe Oxide/Hydroxide			97	80			65			W	mustard brown, brown	subrounded dull	opaque	irregular
Gahnite							Tr			WW	aqua green	rounded smooth, glassy	translucent	ovate
Ilmenite			Tr				25			MW	silvery-black	subrounded submetallic	opaque	blocky to subhedral
Kyanite			Tr	10			Tr			MW	colourless, blue		pearly, transparent, translucent	elongate, blocky
Leucosene				Tr			Tr			W	grey, cream	rounded polished	opaque	irregular
Molybdenite			Tr	Tr			Tr			MW	silvery-black		metallic, opaque	platy
Pyrite			Tr	Tr			Tr			MW	brassy yellow	subrounded, metallic, subangular	opaque	blocky
Rutile			Tr	10			Tr			MW	black, cherry red	subrounded dull	opaque	rolled, blocky
Staurolite			Tr	Tr			Tr			MW	orange-brown	subrounded glassy	opaque, translucent	blocky, irregular
Zircon				Tr			Tr		Tr	MW	pink, colourless		glassy, opaque	subhedral, ovate
TOTAL	%	%	100%	100%	%	100%	%	0%						

Detailed Heavy Mineral Analysis

Our Job No.: 06027
Disc No.: -

Sample No:	A102801
Overall Sample Assessment:	Positive
Your Project Code:	NT

What Has Been Observed?

Final Conc Weight 104.2700 g | Size Range -1.2+0.1 mm
Weight Observed 45.55 g

Magnetic Fractions vs Size Fraction

mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NM			All	All		All		
M6/7			All	None		None		
M4/5			All	None		All		

Technician: JED

Date Observed: 22-May-06

Report Printed: 12/06/2006 4:20:38 PM

Comment about this sample:

Mineral percentages are for the non-magnetic fraction. The entire -1.2+0.3mm acised conc was ultimately peroxide fused and reobserved for diamonds. 12 small (approx 100um) microdiamonds were recovered in the residue.

Detailed Heavy Mineral Analysis

Our Job No.: 06027
Disc No.: -

Sample No: **A102803**

Overall Sample Assessment: **Unresolved**

Your Project Code: NT

Sample Type (as collected):	Bulk Sample	Head Weight	774.12 kg
Sample Type (as received):	Bulk Sample	Wet Weight	<input type="text"/> kg
Observed Sample Type:	DMS Concentrate		

Diamond	Number of particles in each size fraction								Total particles	Description of these particles	
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20			+0.10
Diamond									1	1	needs confirming by SEM

Key Minerals	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)	
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20							+0.10
Chromite/Cr-Spinel					5		60				W	B1	65	B	dull black, finely frosted, weathered, 65
Synthetic Diamonds					18							C1	18	C	yellow

Other Minerals	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape	
	mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20							+0.10
Almandine				Tr	Tr		Tr			MW	rose pink		glassy	transparent, translucent	irregular
Al-Spinel					Tr		Tr			MW	grey-blue, cream	subangular	glassy	translucent	irregular, subhedral
Anatase							Tr			MW	ice blue	subrounded	submetallic	translucent	irregular
Corundum				Tr	Tr		Tr		Tr	MW	yellow, colourless, pink	subangular	glassy	transparent	blocky
Epidote					Tr		Tr			W	yellow-green	subrounded	dull	opaque	irregular
Fe Oxide/Hydroxide				15	15		10			W	brown, red-brown	subrounded	dull	opaque	irregular
Florencite					Tr		Tr			F	cream	angular	vitreous	opaque, translucent	subhedral
Gahnite					Tr		Tr		Tr	MW	dark green	subrounded	glassy	opaque	subhedral
Kyanite				60	40		20			MW	colourless, blue, grey		pearly	transparent, translucent,	elongate blocky
Leucoxene					Tr		Tr			W	cream, beige	subrounded	polished	opaque	irregular
Molybdenite					Tr		Tr			MW	silvery-black		metallic	opaque	platy
Phosphate							Tr			W	pale orange, yellow	rounded	resinous	opaque, translucent	ovate, tabular
Pyrite				Tr	Tr		Tr			MF	brassy yellow	subangular	metallic	opaque	blocky
Rutile				5	30		20			MW	black, cherry red	subrounded	submetallic	translucent, opaque	blocky, elongate
Staurolite				20	15		20			MW	orange-brown	subrounded	glassy	translucent, opaque	irregular, included



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Detailed Heavy Mineral Analysis

Our Job No.: 06027
Disc No.: -

Sample No: **A102803**

Overall Sample Assessment: **Unresolved**

Your Project Code: NT

Tourmaline			Tr		Tr			MW	brown	subangular	glassy	transparent, translucent	blocky
Zircon			Tr	Tr	30		Tr	MW	pink		glassy	opaque	subhedral
TOTAL	%	%	100%	100%	%	100%	%	0%					

What Has Been Observed?

Final Conc Weight g | Size Range mm
 Weight Observed g

Technician: JED

Date Observed: 23-May-06

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Magnetic Fractions vs Size Fraction

mm	+1.2	+1.0	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NM			All	All		All		
M6/7			None	None		None		
M4/5			None	None		1/2		

Comment about this sample:

Mineral percentages are for the non-magnetic fraction.
 The entire -1.2+0.3mm acised conc was ultimately peroxide fused and reobserved for diamonds. 1 small (approx 100um) microdiamond was recovered in the residue (needs confirming by SEM)